



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

**THE EXPERIENCE OF INSIGHT:  
AN EXISTENTIAL-PHENOMENOLOGICAL STUDY**

by

**JOHN FREETH**

Submitted in partial fulfilment for the degree

**PHILOSOPHIAE DOCTOR  
(Psychotherapy)**

in the

**FACULTY OF HUMANITIES**

**Department of Psychology**

**UNIVERSITY OF PRETORIA**

**SUPERVISOR : Dr A.A. Gildenhuys**

**CO-SUPERVISOR : Dr R.J. Alapack**

**DATE APRIL 2010**

## ACKNOWLEDGMENTS

**Umntu ngumuntu ngabantu**

**A person becomes a person through other persons**

In this context I particularly want to acknowledge and thank:

- My parents for their faith and the considerable sacrifices they made for my development, values and education
- My wife for her love, support, understanding and typing of this thesis despite her brain tumour. Surprisingly, in the light of our limited computer skills, it was a remarkably convivial experience of working together
- Our children and their partners for encouragement, shrewd comments and intelligence, not only related to this thesis; my continuing education in terms of reading, music, films and technology is almost entirely dependent on them
- Each one of the research participants for sharing their experiences so honestly and profoundly, and being so generous with their time
- Librarians who have been so helpful and courteous at all times, especially Lourette Visser, Liesl Stieger, Russel Williams and Irma Liberty
- Several people gave invaluable help and came to the rescue when we had computer problems, particularly Trevor Hughes and Ken Dunbar-Curran
- Palmer Development Group, where my wife used to work, for being extraordinarily generous in allowing us to use their equipment
- Joyce Scott and Lindy Mavuso for some typing, Carolyn Butler for some layout advice and Candice Platt for skilful and meticulous help with editing and proof reading
- My supervisors, Assie Gildenhuys and Richard Alapack whose very different skills, temperaments and abilities complemented one another and challenged, guided and enriched me in this strange, but enjoyable, academic process
- My supervisor of my therapeutic work, Rod Anderson, for his support and wisdom.

## ABSTRACT

In the last fifteen to twenty years there has been increasing agreement about the phenomenon of insight, but a clear mechanism for insight is not yet understood.

The present study examines nine different approaches to the experience of insight: the holistic approach of gestalt psychology; the existential approach of phenomenological psychology; the puzzle-problem approach of cognitive psychology; the creative approach of genius, dreams, design and invention; the representational approach of models; the case-study approach of great minds; the metaphors-of-mind approach; the intersubjective approach of psychotherapy, and the body-mind-spirit continuum approach of spirituality to insight.

The distinctive value of this qualitative research lies in the opportunity to interview the research participants to get rich descriptions, not only about their experiences of significant insight and the conditions under which they occurred, but also to investigate the results of their insights.

Archbishop Emeritus Desmond Tutu's insight, in prayer before the Soweto Uprising, resulted in him writing a historic letter of warning to the Prime Minister. Debbie Brown had a series of insights in therapy and while listening to music, about responding to her husband's long-term infidelity; the results were totally unexpected and expressed in a contemporaneous e-mail. Sir Roger Penrose's experience of insight was subliminal as he crossed a road and needed to be remembered later from a lingering feeling of elation; it resulted in a scientific proof about black holes. Tony Grogan's insights and associations occurred while scanning the news and were expressed in a socio-political cartoon form for the *Cape Times* newspaper.

The particular findings include the necessity for awareness and disposition of openness, the importance of confronting and containing the problematic raw material, and the significance of the moments of 'impact' and 'interpreting'. Insight is seen as crucial to the quality of understanding, transcending the usual or dominant way of seeing things, as key to a self-actualising process and as self-authenticating yet tested in the public realm. At each occurrence of insight understanding develops and action is enabled. The relationship between insight and

sight, foresight and humour, is discussed. The qualitative research findings are considered in relation to recent neurobiological research.

### Key Terms:

Insight	Spirituality	Impact
Intuition	Experience	Phenomenology
Existential	Gestalt	Creative
Affective	Metaphor	Interpreting
Cognitive	Body-Mind-Spirit	Intersubjective
Behavioural		

### Conventions

A number of atypical, or potentially unclear uses, meanings and typography of words are used in this thesis because of the distinct political context in South Africa at the time. For example, groups of people are referred to as “Black”, “White”, or “Coloured” and the apartheid regime as “Government”.

In addition, a number of words are hyphenated to indicate a slightly different emphasis to the usual use of the word. For example, psycho-logical, re-member and re-imagine or re-image.

The text of the transcribed interviews in Chapter **5** is in bold type to make a clear distinction between the text and the analysis of, or comments on, the text. Numbers of chapters, as in Chapter **5** above, are also in bold, as are numbers of sections, figures and cartoons. The names of the research participants, in Chapters **6** and **7** are also in bold, to enable greater clarity about who’s experience is under discussion.

Single quotation marks around a word or phrase indicate key terms, whose meaning and significance are defined in the study.

## TABLE OF CONTENTS

<b>CHAPTER 1 THE INTRODUCTION TO THIS STUDY</b>	<b>1</b>
1.1 The Motivation for the Study	1
1.2 The Nature and Aim of the Study	2
1.3 An Overview of the Study	3
<b>CHAPTER 2 THE LITERATURE REVIEW</b>	<b>9</b>
2.1 Introduction and Approach	9
2.2 Some Definitions of Insight	10
2.2.1 Some Definitions of Intuition	13
2.2.2 Exploring the Relationship between Intuition and Insight	14
2.2.3 Some Phenomenological Characteristics of Insight	16
2.3 The Holistic Approach of Gestalt Psychology to Insight	17
2.3.1 Five Inter-Related Views of Insight in Gestalt Psychology	17
2.3.2 An Evaluation of the Contribution of the Approach of Gestalt Psychology	23
2.4 The Existential Approach of Phenomenological Psychology to Insight	25
2.4.3 Insight as Impact and as Interpreting	27
2.4.4 Insight as Feeling	29
2.4.5 Disturbed Disposition: Unconscious Behaviour	31
2.4.6 An Evaluation of the Contribution of the Approach of Existential-Phenomenology	32
2.5 The Puzzle-Problem Approach of Cognitive Psychology to Insight	36
2.5.1 Three Alternative Perspectives on Insight	36
2.5.2 The Mental Preparation for Insight	39
2.5.3 The Incubation Phase of Insight	40
2.5.4 The Process in the Moment of Insight	42
2.5.4.1 The Cognitive Components of Insight	43



2.5.4.2	The Affective Components of Insight	
44		
2.5.4.3	The Behavioural Components of Insight	
47		
2.5.4.4	A Merger of the Cognitive and Affective Components of Insight	
48		
2.5.5	The Verification of Insight	49
2.5.6	Some Questions about “Insight Problems” in the Laboratory	50
2.5.7	An Evaluation of the Contribution of the Approach of Cognitive Psychology	53
2.6	The Creative Approach of Genius, Dreams, Design and Invention to Insight	56
2.6.1	An Overview of the Literature on Creativity	56
2.6.2	A Darwinian Chance Configuration Theory of Creative Genius	58
2.6.3	Unconscious Chance or Conscious Logic in Insight?	60
2.6.4	Insight and Creativity in Dreams	62
2.6.5	Insight and Creativity in Design	64
2.6.6	Constraints on Thinking in Insight and Invention	65
2.6.7	Serendipity, Profusion and Profligacy in Creativity and Invention	67
2.6.8	An Evaluation of the Contribution of the Creative Approach	69
2.7	The Representational Approach of Models of Insight	72
2.7.1	Intrapsychic and Interpersonal Models of Insight	72
2.7.2	Evolutionary, Ecological and Inter-actionist Models of Insight	73
2.7.3	An Interpsychic Model of Insight	75
2.7.4	Insight in Presented Problem Solving and Discovered Problem Finding	76
2.7.5	An Evolving Systems Model of Insight	79
2.7.6	An Evaluation of the Contribution of the Approach of Models of Insight	80
2.8	The Case–Study Approach of Great Minds Experiencing Insight	82
2.8.1	The Approach to Poincaré’s Experience of Insight	83
2.8.2	Thought, Purpose and Affect in Darwin’s Malthusian Moment of Insight	87
2.8.3	An Evaluation of the Contribution of the Great Minds Approach	89
2.9	The Metaphors-Of-Mind Approach to Insight	90
2.9.1	Insight in Minds and Genes	91
2.9.2	An Investment Metaphor for Insight	93
2.9.3	The Vision Metaphor for Insight	95



<b>2.9.4 The Significance of the Quality of Vision</b>	<b>97</b>
<b>2.9.5 The Problem Space Metaphor for Insight</b>	<b>98</b>
<b>2.9.6 Verbalisation and Insight</b>	<b>100</b>
<b>2.9.7 The Significance of Metaphors-of-Mind in the Current Research of Insight</b>	<b>101</b>
<b>2.9.8 An Evaluation of the Contribution of the Metaphors-of-Mind Approach</b>	<b>102</b>
<b>2.10 The Inter-Subjective Approach of Psychotherapy to Insight</b>	<b>104</b>
<b>2.10.1 The Significance of Insight in Psychotherapy</b>	<b>104</b>
<b>2.10.2 Three Assumptions Underlying this Approach</b>	<b>105</b>
<b>2.10.3 Insight of the Therapist</b>	<b>106</b>
<b>2.10.3.1 Insight as Analytic Intuition</b>	<b>106</b>
<b>2.10.3.2 Insight as Interpreting Psychoanalytic Theory</b>	<b>107</b>
<b>2.10.3.3 Therapist Characteristics and Techniques</b>	<b>108</b>
<b>2.10.4 Insight of the Client</b>	<b>111</b>
<b>2.10.4.1 Self-Insight in Quantitative Research</b>	<b>111</b>
<b>2.10.4.2 Self-Insight in Qualitative Research</b>	<b>112</b>
<b>2.10.5 The Evolving Insight in the Inter-Subjective Psychotherapeutic Relationship</b>	<b>113</b>
<b>2.10.5.1 The Unique Interpretation of Interpretations in Insight</b>	<b>114</b>
<b>2.10.5.2 The Role of Implicit Knowledge and Intuitive Thought in Insight</b>	<b>114</b>
<b>2.10.5.3 Associations as Representatives of the Unthought Known in Insight</b>	<b>115</b>
<b>2.10.6 A Reflection on the Difference between Insight as Interpreting Psychoanalytic Theory and Insight as Analytic Intuition</b>	<b>116</b>
<b>2.10.7 An Evaluation of the Contribution of the Inter-Subjective Approach of Psychotherapy</b>	<b>117</b>
<b>2.11 The Body-Mind-Spirit Continuum Approach of Spirituality to Insight</b>	<b>121</b>
<b>2.11.1 The Phenomenon of Man: The Origins and Consummation of Spirituality</b>	<b>121</b>
<b>2.11.2 The Origins of Spirituality in Africa</b>	<b>124</b>
<b>2.11.3 A Distinction between Spirituality and Religion</b>	<b>124</b>
<b>2.11.4 The Body-Mind-Spirit Continuum</b>	<b>126</b>
<b>2.11.5 Trans-cultural and Ecumenical Spirituality</b>	<b>128</b>
<b>2.11.6 Four Different Experiences of Insight in Spirituality</b>	<b>130</b>



2.11.6.1 An Individual's Experience	131
2.11.6.2 Dialoguing for Spiritual Insight	132
2.11.6.3 A Theologian's Experience of Insight through Music	135
2.11.6.4 <i>Ubuntu</i> : A Crucial Insight in African Spirituality	137
2.11.7 An Evaluation of the Contribution of the Mind-Body-Spirit Approach of Spirituality	140
2.12 A Summary of the Significance of Each Approach for this Study	144
2.12.1 The Significance of the Holistic Approach of Gestalt Psychology	144
2.12.2 The Significance of the Existential Approach of Phenomenology	144
2.12.3 The Significance of the Puzzle-Problem Approach of Cognitive Psychology	145
2.12.4 The Significance of the Creative Approach of Genius, Dreams, Design and Invention	145
2.12.5 The Significance of the Representational Approach of Models	146
2.12.6 The Significance of the Approach of Great Minds and Dedicated Lives	146
2.12.7 The Significance of the Approach of Metaphors-of-Mind	147
2.12.8 The Significance of the Inter-subjective Approach of Psychotherapy	148
2.12.9 The Significance of the Body-Mind-Spirit Continuum Approach of Spirituality	149
2.13 Conclusion	151
<b>CHAPTER 3 THE METHODOLOGY</b>	<b>153</b>
3.1 Introduction and Orientation	153
3.3 The Choice of the Existential-phenomenological Approach	154
3.4 A Brief Philosophical Background to Existential Phenomenology	156
3.4.1 Existentialism	156
3.4.2 Phenomenology	156
3.4.3 Existential Phenomenology	158
3.5 The Adaptation of Existential Phenomenology for Psychology	158
3.6 The Research Process	159



3.6.1	The Literature Review	159
3.6.2	A Self-reflective Search	160
3.6.3	The Central Research Question for the Interview	160
3.6.4	The Ethical Protocol and Informed Consent Form	162
3.6.5	Selection of Research Participants	163
3.6.6	A Preliminary and Exploratory Study	164
3.7	The Interview	165
3.7.1	Theoretical Clarification of the Interview	165
3.7.2	Characteristics of a Qualitative Interview	167
3.7.3	Methodological Implications of the Interview	168
3.7.4	Practical Matters Relating to the Interview	169
3.8	The Procedure for the Analysis of the Protocols	169
3.8.1	Obtaining a Sense of Each Protocol as a Whole Experience (Step 1)	170
3.8.2	Discerning and Numbering Meaning Units (Step 2)	171
3.8.3	Stating the Meaning That Dominates Each Meaning Unit (Step 3)	171
3.8.4	Interrogating Each Transformed Meaning Unit (Step 4)	172
3.8.5	Synthesising These Interrogated Transformed Meaning Units into a Descriptive Situated Structural Statement (Step 5)	173
3.8.6	Developing a General Structural Statement (Step 6)	174
3.8.7	Elucidating a Comprehensive Structural Statement (Step 7)	175
<b>CHAPTER 4 THE PRELIMINARY STUDY</b>		<b>177</b>
4.1	Introduction	177
4.2	The Purpose of the Preliminary Study	177
4.3	The Research Participant	178
4.4	The Selection of one Part of the Interview for Study	178
4.5	The Context	184
4.6	The Verbal Text	188
4.7	The Situated Structural Statement	190
4.8	The Visual Text	191

<b>CHAPTER 5 THE INVESTIGATION AND FINDINGS</b>	<b>197</b>
5.1 Introduction	197
5.2 The Research Participants	198
5.3 The Investigation of Desmond’s Experience of Insight	199
5.4 The Situated Structure of Desmond’s Experience of Insight	223
5.5 The Investigation of Debbie’s Experience of Insight	227
5.6 The Situated Structure of Debbie’s Experience of Insight	264
5.7 The Investigation of Roger’s Experience of Insight	269
5.8 The Situated Structure of Roger’s Experience of Insight	305
5.8.1 The initial stages and precursors of insight.	305
5.8.2 The dynamic core of Roger’s sudden experience of insight.	307
5.8.3 Roger’s own reflections on his experience of insight.	308
5.9 The General Structure of the Experience of Insight	312
<b>CHAPTER 6 THE DISCUSSION OF THE FINDINGS</b>	<b>315</b>
6.0 Introduction	315
6.1 Finding 1. The Unresolved Issue	316
6.2 Finding 2. The Openness Required	318
6.3 Finding 3. The Unresolved Issue ‘Confronted’ and ‘Contained’	324
6.4 Finding 4. The ‘Impact’: A Passive Experience	328
6.5 Finding 5. The ‘Interpretation’: A Reflexive Experience	333
6.6 Finding 6. The “Aha!” Experience	337
6.7 Finding 7. The Changed Perspective	343
6.8 Finding 8. The Self-Authenticating Experience	347
6.9 Finding 9. The New Understanding	354
6.10 Finding 10. The Recurring Quality	359

<b>CHAPTER 7 THE DISTINCTIVE VALUE OF THIS RESEARCH</b>	<b>366</b>
7.1 The Value of the Structure of the Experience of Insight	366
7.2 The Value of the Selection of Research Participants	366
7.3 The Value of ‘Disposition of Openness’ for Insight	368
7.4 The Value of ‘Confronting and Containing’ for Insight	369
7.5 The Value of the ‘Moment of Impact’	370
7.6 The Value of the ‘Moment of Interpreting’	371
7.7 The Value of Insight as ‘Key to a Self-Actualising Process’	373
7.8 The Value of the Quality of ‘Understanding’ in Insight	374
7.9 The Value of Insight as ‘Self-Authenticating’	377
7.10 The Value of the ‘Recurrence’ of Insight	379
7.11 The Value of the ‘Experience’ and the ‘Fruit of Insight’	380
7.12 The Value of the Experience of Insight in the ‘Unfolding Context’ of Life	384
7.13 The Value of the ‘Relationship Between Sight and Insight’	385
7.14 The Value of the ‘Relationship Between Foresight and Insight’	386
7.15 The Value of the ‘Relationship Between Humour and Insight’	387
7.16 The Value of the ‘Philosophical Understanding of Intuition for Insight’	390
7.17 The Value of ‘Relating the Qualitative Research to Neurobiological Research’	391
7.18 The Value of the ‘Researcher’s Own Learning Experience’	395
7.19 The Limits, Shortcomings and Omissions in this Research Requiring Further Investigation	400
7.20 A Concluding Overview of this Study	401
<b>REFERENCES</b>	<b>402</b>



<b>APPENDIX A</b>	<b>456</b>
<b>The Preliminary Study Interview: Additional Material</b>	
<b>APPENDIX B</b>	<b>471</b>
<b>Desmond Tutu’s Letter to the Prime Minister: the Result of his Experience         of Insight</b>	<b>471</b>
<b>APPENDIX C</b>	<b>477</b>
<b>Sample Letters to Research Participants</b>	
<b>APPENDIX D</b>	<b>480</b>
<b>Informed Consent Forms</b>	

# CHAPTER 1

## THE INTRODUCTION TO THIS STUDY

Groucho Marx, with impeccable timing amplified by his characteristic body language and deadpan facial expression, says “Why, a four-year-old child could understand this report. Run out and find me a four-year-old child. I can’t make head or tail of it” (1933 Film *Duck Soup*). The same might be said of the experience of insight. It is so simple for a spontaneous, wide-eyed four-year-old child, for whom everything is a fresh discovery, a new insight. Yet a report of the phenomenon, particularly a PhD thesis, runs the risk of so complicating the experience that one literally “can’t make head or tail of it”.

In this introduction, three aspects of the study will be covered; the motivation for the study, the nature and aim of the study, and finally an overview of the study.

### 1.1 The Motivation for the Study

The saving grace of this study, if there is one, is that it was not undertaken primarily to obtain a PhD. In my seventieth year, that is not exactly a requirement for a ‘retread’ priest and psychotherapist; though doubtless vanity plays its part. The most significant conscious motivation has been, and continues to be, my own personal experience of insights, or intuitions as some might describe them. I am not making any great claims for these experiences which usually occur while reflective or prayerful, sometimes ‘out of the blue’ or during conversation and particularly in a therapeutic setting. I am simply making the point that they motivate me to explore the experience of insight further. In fact some of these experiences were comparatively trivial, although always meaningful. One was probably life-saving; it occurred while going unconscious, completely buried in an avalanche of snow while skiing in the Alps; it certainly precipitated a profound sense that I owed my life to God, and over time led to my ordination as a priest. Another very different experience of insight led to accepting an invitation in 1979 to work

in South Africa, which to my shame I had turned down just three weeks before; the result of that has also been life-changing. Because of these experiences I have come to value the meaning and significance of experiences of insight, and have long wanted to investigate the matter further in order to come to a deeper and more integrated understanding for myself and for the sake of others.

The incredible pressures of Christian ministry and involvement in the struggle for justice made it impossible to pursue the privilege and luxury of academic work, until after the remarkable transition of power in South Africa, and the completion of the main work of the Truth and Reconciliation Commission. Perhaps it is not such a bad thing to be a lot older, and hopefully a little wiser, before beginning a PhD.

## **1.2 The Nature and Aim of the Study**

The continuing lack of a clear mechanism for insight, combined with the legacy of an historical suspicion that the phenomenon of insight is somehow supernatural, has both challenged and inhibited researchers in exploring this most mysterious, fascinating and important human experience. The fundamental difference in the attempt to understand, is between qualitative and quantitative approaches to insight. These two approaches need not necessarily be in competition with one another but may be complementary to one another. This study is a qualitative one for at least three reasons:

(1) It has to be acknowledged that a qualitative study is the researcher's particular and personal interest. I started my working life as a research assistant in electronics, specialising in autopilots in the aircraft industry, which involved a fair amount of number crunching and hard technical science. I have since then, as a priest and psychotherapist, become increasingly interested in human beings and increasingly convinced about the value and significance of human science, in the quest for meaning and understanding, rather than exact measurement. I value exact measurement where it is possible and cherish the ideal of the complementary role of qualitative and quantitative studies, yet it is also sadly true that what is of least significance in human terms is often what is most easily measured and quantified.

(2) Insight itself, according to Csikszentmihalyi and Sawyer (1995:329) is what distinguishes “mental processes that are routine, shallow, and trivial on the one hand, and those that are unusual, profound, and important on the other”. So it is vital that the methodology employed enables understanding not just of trivial experiences, as is so often the case with the puzzle-problem approach of cognitive psychology, but is also able to illuminate profound examples, as in the case study approach of great minds experiencing insight and in the approach of spirituality to insight.

(3) Humanistic psychology, in which the fullest range of human potential has become open to investigation, involves the call to experience a different, more fully conscious and more empathically insightful way of being-in-the-world, rather than simply a different way of thinking. This implies transcending the limits of the ego-self, the ordering centre of the conscious personality, which at the current stage of research can only be explored by way of description and discovery of meaning and intentionality, rather than by measurement or explanation.

So, it is at least arguable, that at this point in terms of research into insight generally, there is a particular value in a qualitative exploration and description of a deeper and broader understanding of the experience of insight to open the subject further, both for its own sake and also as a way of opening up aspects and structures of the experience for other complementary quantitative studies, particularly cognitive and neurological ones.

### **1.3 An Overview of the Study**

This section will attempt to fulfil both meanings of the word ‘overview’; namely, to give both a broad survey and a brief summary of each chapter of the study.

Chapter 2, the literature review, begins with definitions of insight and intuition, with a preliminary exploration of their relationship. Then nine different approaches to the experience of insight are developed in order to assess their significance for the understanding of the experience of insight.

- The holistic approach of gestalt psychology with its characteristic emphasis on the experience of insight as an integrated whole with an emergent quality, rather than simply

the sum of individual stimuli and responses. So insight involves understanding the underlying structure of a problem, enabling a person to complete a schema, suddenly reorganise visual information, restructure the problem (regarded as the *sine qua non*), remove mental blocks or find a problem analogue.

- The existential approach of phenomenology adds a new dimension because it insists that the structure of the experience cannot be understood just as a mechanism but only on the deeper level of the self, experiencing ‘impact’, (the influence of the life-world on the self), and ‘interpreting’ meaning (the influence of the self on the life-world) in an existential space of possibility.
- The puzzle-problem approach of cognitive psychology adds a wealth of detailed research work on specific areas of cognitive functioning in insight. Yet three dangers lurk: the focus on the mechanism rather than the person and the meaning, laboratory studies divorced from life-world experiences resulting in trivial experiences of insight and most fundamentally, the lack of agreement about exactly what constitutes an insight problem.
- The creative approach of genius, dreams, design and invention broadens the whole investigation and emphasises that the creative experience is a possibility for everyone. The distinction between convergent insight and divergent insight proves useful and is consistent with the conclusion that insight depends on releasing constraints, whereas invention requires strategic cycles of constraint release and imposition.
- The representational approach of models adds an important contextual dimension to the isolated individual’s mental processes by including the social, cultural and environmental influences as well as the element of chance in insight.
- The approach of great minds and dedicated lives experiencing verified experiences of insight contributes an important historical and particular perspective and is especially valuable and germane to this study. It illustrates the significance of rich detailed description, the *sine qua non* of the existential-phenomenological approach.
- The approach of metaphors-of-mind and analogies, less precise than models, is particularly valuable because metaphor may be at the core of human cognition and provide suggestive ideas for elucidating the elusive human scientific nature of insight, particularly in life-world situations. Yet precisely because analogies and metaphors are

remarkably seductive it is essential to recognise the points of difference within the similarities.

- The intersubjective approach of psychotherapy adds a new dimension of transliminal intersubjectivity which is potentially very valuable and enables investigation of insight in terms of intuitive thinking and awareness, as well as the ‘clues’ and ‘links’ with other people and material, prompting insight which would not have occurred to an isolated individual. It is also particularly useful for understanding self-insight.
- *Finally*, the body-mind-spirit continuum approach of spirituality, in which spirituality is defined in terms of a person’s sense of meaning, values and purpose in life, is regarded as an essential complement to the previous eight approaches, extending the depth and breadth of human experiences beyond the biological, psychological and sociological frameworks. It also enables a better appreciation of insight in aesthetic experience of goodness, truth and beauty than any of the other approaches.

The third chapter begins with three predisposing factors in choosing the existential-phenomenological methodology. Then five interlocking reasons, related to different aspects of the existential-phenomenological approach itself, are adduced which cumulatively indicate this methodology as the most appropriate for this particular study of the experience of insight. This is followed by a brief philosophical background of existential phenomenology and its adaption pioneered by Giorgi for its use in pursuit of psychological understanding.

The focus then moves to the application of the methodology in the research process. An essential part of the preparation for the research was a self-reflective search of my own experiences of insight. This was undertaken in order to sensitize me to the nature of the research, to help clarify my central research question for the interviews of the research participants, and to attempt to identify my own preconceived notions or biases with a view to ‘bracketing’ them. It proved to be a profoundly moving and revealing experience exceeding my expectations. The development of the ethical protocol and informed consent form are then described, with copies in Appendix D.

The reason for starting with interviewing the research participants before doing the literature review is explained, and six elements are identified as crucial for the research question of the

interview, leading to the formulation of that key question. The selection of a reasonable variety of research participants with ability to identify and articulate a significant experience of insight in their lives is explained. Four aspects of the interview are then considered; theoretical clarification, qualitative characteristics, methodological implications and practical considerations. The procedure for the analysis of the protocols is then described in seven steps.

A preliminary and exploratory study was undertaken as a necessary part of the researcher's own learning curve. This forms the basis of the next chapter.

Chapter 4, the preliminary study, begins with outlining the fourfold purpose of this particular part of the study, before introducing the research participant, a socio-political cartoonist.

The structure of this chapter is formed by three main, but inter-related, aspects: the verbal text of the interview, the visual text of the cartoon and the con-text of the socio-political commentary. One result of this was discovering the richness, variety and density of the emerging material.

Working with the *verbal text* I learned eight valuable lessons which are described. The work with the *visual text* of Cartoon 5 is developed under five main headings. In order to explicate the embedded socio-political-cultural *con-text* eleven key terms are clarified with relevant notes, situations, dates and South African legislation, to enable a fuller appreciation of the context.

The researcher is aware that this has resulted in an unusual preliminary study and goes beyond the normal application of the existential-phenomenological methodology selected, yet it is submitted that it was necessary in order to do justice to the particular quality of the material, provided a very valuable learning experience and proved worthy of inclusion in the main study.

Chapter 5, the investigation and findings, begins with the reasons for including the full interviews and each step of the research process for all the research participants in the text of this chapter, rather than the more usual custom of presenting the investigation and results of one of the research participants in full, with the others relegated to various appendices.

The research participants are then introduced, followed by the transcript of the tape recorded interview and the analysis of each protocol following the steps of the methodology described in

chapter 3 as far as the essential situated structural statement of each participant's experience. The fruit or results of each participant's experience are also included.

The general structural statement of the experience of insight follows. It is composed of ten findings representing the ten constituent components of the experience. The first three progressively describe the initial stages and preconditions for insight. The next three represent the dynamic core of the experience of insight and are characterised by a passive, a reflexive and finally an active experience. The final four components describe the unfolding nature, results and recurring quality of the experience of insight.

In chapter 6, the discussion of the findings, the emphasis falls on the importance of the coherence of the ten constituent components of the experience of insight. A general structure of this particular holistic nature does not appear in the literature. So particular findings should be seen and evaluated in relation to this whole dynamic general structure.

The framework of the chapter consists of two essential steps.

*First*, each of the ten constituent components are illustrated by the experience of all four research participants with particular attention to the varieties and limits of their experiences, encompassed within that particular research finding.

*Second*, the nine approaches to the experience of insight developed in the literature review are considered, where relevant, to show connections with, and support for, each component of the research findings; also to reveal points at which the research findings question or challenge a particular approach or its metaphysical presuppositions.

The most significant findings which emerge from this two-fold process are discussed in the next and final chapter.

The final chapter, 7, on the distinctive value of this research, contains a comprehensive and integrative reflection upon the findings of this thesis. It addresses the value and contribution of the work, which has distinct characteristics; uniqueness is not claimed. The evidence gathered emerges from a plethora of walks of life; a variety of contexts within which insights were experienced and a range of forms of insight. There are twenty distinct themes reflected upon



within the holistic and unitive structure of the experience of insight and its integrative effect. These include two of the precursors of insight, namely the ‘disposition of openness’ required for insight and the importance of ‘confronting and containing’ the raw material of insight. Then the three themes of the dynamic core of insight are explicated, namely the ‘moment of impact’, the ‘moment of interpreting’ and insight as ‘key to a self-actualising process’. Two qualities of the nature of insight, namely the way it is ‘self-authenticating’ and ‘recurring’ are explored. In addition, the effect that the selection of participants had on the research, the quality of their understanding as a result of insight and the fruit of their experience of insight are considered. The value of relating this qualitative research to neurobiological research is also discussed. The various relationships between sight and insight, foresight and insight, humour and insight, and intuition and insight, are also explored.

Finally, the chapter also offers reflection on the way the researcher is inserted in this quest, how and what he learned through the process and the limits, shortcomings and omissions of the research. It is also hoped that the recognition of these omissions, requiring further investigation, will open possibilities to others.

## CHAPTER 2

### THE LITERATURE REVIEW

#### 2.1 Introduction and Approach

There appears to be a general tendency, in all cultures and historical periods, to differentiate between mental processes that are routine, shallow and trivial on the one hand, and those that are unusual, profound, and important on the other. In the English language, the word that best denotes the second type of mental process is *insight*, derived from the Old Dutch for ‘seeing inside’. (Csikszentmihalyi & Sawyer 1995, p. 329)

In the ideal detective story, the reader is given all the clues yet fails to spot the criminal; it remains a mystery. Solving the mystery is not dependent on any one clue, or remembering them all, but a quite distinct activity of organising intelligence that *sees* the clues in a unique explanatory perspective. Such *insight* is a “supervening act of human understanding” (Lonergan 1983, p. x). Insight apprehends relations and meaning: it unifies and organises.

The approach taken in this literature review begins with some definitions and phenomenological characteristics of insight. Consideration is then given to definitions of intuition and its relationship to insight. The main body of this review investigates nine different approaches to understanding the phenomena, and clarifying both the nature and the experience of insight. This approach was influenced by, but by no means confined to, the outline of *The Nature of Insight* by Sternberg and Davidson (1995).

An evaluation of the contribution of each approach to the understanding of insight is made at the conclusion of each approach. Obviously these nine approaches are not watertight compartments; there is a flow and development between most of them even where sharp differences emerge. The primary purpose of defining these nine approaches in this context is in the service of clarity and of organising a very considerable body of diverse material on the subject of insight.

## 2.2 Some Definitions of Insight

At this point it is appropriate to consider a number of definitions of insight to provide greater clarity.

Seifert, Meyer, Davidson, Patalano and Yaniv (1995, p. 66) draw on definitions in *Webster's new world dictionary* (Guralnik 1984) which define *insight* as “seeing and understanding the inner nature of things clearly, especially by intuition”. In this context *intuition* is “the immediate knowing of something without the conscious use of reasoning”. The *Encarta World English Dictionary* (Rooney 1999, p. 970) defines *insight* as “the ability to see clearly and intuitively into the nature of a complex person, situation or subject”. The same dictionary defines *intuition* as “something known or believed instinctively, without actual evidence for it” (Rooney 1999, p. 985). In philosophy Osbeck (1999, p. 238) insists on the *non-inferential* nature of intuitive apprehension. It is the “immediate knowledge of something” (from the Latin *intueri* ‘to look upon’). There may be some questions about these definitions because of the way insight is defined in terms of intuition, which in effect substitutes one problem for another. It will be necessary to return to this question in more detail later.

The *Oxford Dictionary of Psychology* (Coleman 2006) defines *insight* as “**1.** clear and deep understanding or perception. **2.** the process by which the meaning or significance of a pattern, or the solution of a problem, suddenly becomes clear, often accompanied by an ‘aha!’ experience”. This has the advantage of not defining insight in terms of intuition which is defined in this source as “immediate understanding, knowledge, or awareness derived neither from perception nor from reasoning”.

A number of researchers in the field have developed definitions of insight. A representative cross-section of definitions is presented here with a summary.

Smith proposes a distinction be drawn between the terms *insight* and *insight experience*. He defines *insight* as “an understanding” which can be acquired in a variety of ways and which may emerge either gradually or suddenly. Whereas “The *insight experience* is the sudden emergence of an idea into conscious awareness” (Smith 1995, p. 32). This is both a valid and useful distinction. But, despite the fact that the primary focus in this research is on the *experience of*

*insight*, it is considered valuable to keep the frame of insight/insightfulness as wide as possible at this stage, to develop a sufficiently comprehensive framework to thoroughly understand the experience. This is why nine different approaches to understanding the nature and experience of insight will be investigated in the main body of this review of scholarship.

Dominowsky and Dallob (1995, p. 37) write more descriptively than definitively:

To gain *insight* is to understand (something) more fully, to move from a state of relative confusion to one of comprehension. There are numerous everyday examples of such changes as in ‘getting’ a joke or reading some material that seems murky but then becomes clear. The difference between ‘I don’t understand’ and ‘I see’ is what is intended. The occurrence of insight is associated with the ‘Aha!’ experience with the proverbial light bulb going on over one’s head.

This is a particularly clear and accessible definition.

Mayer’s (1995, p. 3) definition is more precise: “The term *insight* has been used to name the process by which a problem solver suddenly moves from a state of not knowing how to solve a problem to a state of knowing how to solve it”. Significantly, he does not propose or define any mechanism for insight which is the object of intense ongoing research, nor does he claim that insight provides a solution. He merely indicates that insight provides the right solution path.

Ansburg (2000, p. 143) proposes that “insight occurs when a solver restructures a previously intractable problem such that a new understanding of what needs to be done appears in consciousness”. Here *restructuring* is defined as the process and *consciousness* is specifically mentioned, as it is in the next definition.

Siegler (2000, p. 79) defines insight as “a sudden change from not knowing a problem’s solution to knowing it consciously”. This implies that Siegler thinks it possible for the subject to know the solution unconsciously by what he calls a “spreading activation” between the crucial concepts in a conceptual framework. This is in sharp contrast to Mayer’s (1995, p. 3) distinction between knowing the *solution path* and the *solution* to a problem.

In summary, if the net is cast more widely, three features recur in most of the definitions of insight:

(1) *Transition*. All the definitions are clear that insight is not just a step forward on the path to a solution. It is a transition from not knowing (Ansburg 2000, Mayer 1995, Ohlsson 1992, Siegler 2000) either to knowing how to solve the problem (Mayer 1995) or to the complete solution (Coleman 2006, Duncker 1945, Siegler 2000).

(2) *Suddenness*. Almost all definitions agree that the transition from not knowing to knowing is experienced consciously as sudden, unexpected and abrupt. This is particularly emphasised by Coleman (2006), Duncker (1945), Mayer (1995), Rooney (1999), Siegler (2000), and Wertheimer (1959).

(3) *Understanding*. Sometimes this is expressed as deeper or a more appropriate form of understanding, sometimes as grasping of essential features, in which either restructuring is emphasised (Ansburg 2000, Dominowski & Dallob 1995) or becoming conscious is important (Ansburg 2000, Siegler 2000). The other possibilities are that understanding may result from exposure to new information (Csikszentmihalyi & Sawyer 1995), or from drawing on previous experience by analogy of structure (Dunbar 1995, Gardner 1993, Gruber 1995).

There is an important, distinctive and different way in which insight is defined and used in psychology and psychiatry. In psychology, which is the context of this study, according to the *Encarta World English Dictionary* (Rooney 1999, p. 970), insight is “the ability of a person to understand and find solutions to his or her personal problems”, whereas in psychiatry it is defined as “the perception, lacking in some psychiatric disorders such as schizophrenia, that symptoms such as delusions and hallucinations are not objective”. The *Oxford Dictionary of Psychology* (Coleman 2006, p. 739) clarifies insight as “often used to distinguish neurosis, in which insight is typically present, from psychosis in which it is typically absent”. Insight in psychoanalysis is defined by the same dictionary as “conscious understanding of unconscious reasons for maladaptive behaviour and is believed to be curative in itself”.

So while it would be neat and simple to be able to identify one clear universal meaning of the word “insight” it seems advisable in our approach to be aware of:

(1) the different meanings of the term *insight* in the psychiatric definition of problems and behaviour compared with the value of *insight* in the therapeutic relationship.

(2) the distinction between insight as “an understanding” which may be acquired in a variety of ways and which may emerge gradually or suddenly, compared with the “insight experience” as the sudden emergence of an idea into conscious awareness.

(3) the more modest and surely accurate claim, that insight does not always provide a solution, but the right solution path.

(4) the potential varieties in the quality of the “insight experience” in, for example, the laboratory experimental setting, compared with hunches or intuitions in life-world experiences of insight, and particularly with major creative or scientific breakthrough “insight experiences”.

The question of the value and subtlety of these distinctions will be explored, clarified and evaluated in the process of exploring the nine different approaches to the experience of insight (see 2.3 – 2.11).

### **2.2.1 Some Definitions of Intuition**

Recently, after being largely ignored by psychologists, the notion of intuition has become a hot topic among popular writers such as Gladwell (2005) whose introductory example of “the statue that didn’t look right” is widely discussed.

According to Duch (2007, p. 1), “[i]ntuition is manifested in categorisation based on evaluation of similarity, when decision borders are too complex to be reduced to logical rules”. This characteristic of intuition in terms of defining and grouping of people or things into categories, is clearly a double-edged sword: incisive and effective when accurate; divisive and dangerous when wrong or inappropriate. Tversky and Kahneman (1974) have documented the problems and failings of the use of intuition. Greenwald and Banaji (1995) have gone further, describing intuitions as judgements that capitalize on inappropriate stereotypes and generalisations. Duch (2007, p. 1) continues by arguing that intuition “is also manifested in heuristic reasoning based on partial observations, where network activity selects only those path(s) that may lead to solution, excluding all bad moves”. This is a more positive characteristic of intuition, enabling an immediate knowing or discovery of solutions, probably involving a rapid process of trial and error rather than following rules or the conscious use of reasoning and inference. He claims it is

rapid, effortless and similar to perception. Ambady and Rosenthal (1992) have found that quick gut-level judgements are remarkably accurate. Yet intuition is not infallible.

In the cognitive dual-process models, intuition is part of the system that is automatic, holistic, affective, fast, and associative; in contrast to rational thought which is deliberative, analytical, propositional, slow and rule based (Denes-Raj & Epstein 1994, Hammond 1996, Hogarth 2001, Ubel & Lowenstein 1997). In making the distinction between the two parallel processing systems it is also necessary to recognise the extent to which they are inter-related, inter-active, and inter-dependent.

### 2.2.2 Exploring the Relationship between Intuition and Insight

As has been noted above an *intuition* may be described as incorrect; but an *insight* would not normally be described as wrong. It might be more appropriate to speak of an *oversight* since an *insight* usually implies a clear and correct understanding.

It is interesting that the phrase “heuristic reasoning” is used in the definition of intuition by Duch (2007). The word heuristic comes from the Greek *heuriskein* ‘to find’ which is the source of the English *eureka*, traditionally regarded as the triumphal “Aha!” expressed by Archimedes as he ran naked from the baths of Syracuse, following his *insight*, so perhaps there is not such a sharp distinction between insight and intuition.

Hogarth (2001) has argued that affect is merely a *correlate*, not an *essential component* of intuition. In Hogarth’s view “some intuitive judgements may be accompanied by a feeling of certainty, but others may develop more slowly over the course of time” (Pretz & Tetz 2007, p. 1249). This distinction would reveal a subtle difference between some intuitions which gradually develop a feeling of certainty as a *correlate*, and the sudden “Aha!” experience of insight which is regarded by the vast majority of researchers as a typical characteristic and an *essential component* of insight.

Pretz and Tetz (2007, p. 1249) define an intuition as “made without reflection as opposed to a rational conclusion based on explicitly available evidence”, and conclude “intuitions are immediate insights rather than reasoned responses”. If *intuitions* can be equated in this way with

*immediate insights*, it raises the question of why an intuition may be recognised as incorrect, whereas an insight would not normally be described as wrong. Perhaps it is more accurate to argue that an instinctive intuition may be involved in an insight, but that intuition and insight are not identical. This would be consistent with a number of definitions which regard intuition as knowing or believing something instinctively rather than insightfully. Hill (1987) made a distinction between two types of intuition: inferential and classical. Both types can be characterized as automatic, but are the result of different mechanisms. *Inferential intuitions* are heuristic judgements based on analytical processes that have become automatic through practice. Whereas in contrast, *classical intuition* is a holistic judgement that integrates diverse sources of information. Pretz and Totz (2007, p. 1249) comment that the latter “is a Gestalt understanding of intuition, one that is qualitatively non-analytical”. Hammond (1996) speaks of intuition as the *holistic integration* of multiple cues without full awareness in situations of irreducible uncertainty, inevitable error and unavoidable injustice. This emphasis on holistic integration is entirely compatible with Hill’s (1987) view of *classical intuition* and addresses the context in which such intuition is so valuable. Osbeck (1999, p. 238) argues that, in the epistemological heritage of intuition in philosophical understanding, “the most salient point is the *non-inferential* nature of intuitive apprehension ... in that it [intuition] provides the *basis upon which* inference can be drawn ... deduction has no role in intuition”.

Several empirical studies provide evidence to support the hypothesis that intuition relies on a *holistic mechanism* (e.g. Bowers, Regehr, Balthazard, & Parker 1990, Dijksterhuis 2004, Wilson & Schooler 1991). The evidence presented by Pretz and Totz (2007) affirms this distinction between heuristic (or inferential) and holistic (or classical) aspects of intuition, and they urge research of the mechanisms behind these two types of intuition.

It does not appear to be possible, at this stage of the study, to define and clarify the exact similarities and differences between *insight* and *intuition*. It is beyond the limits of this research to examine the difference mechanisms underlying both. The working understanding at this point is that the holistic quality of classical intuition is indeed part of the holistic process of the experience of insight. Yet the definitions by researchers in this section about the relationship will be considered, where relevant, in the nine difference approaches to insight (sections **2.3** to **2.11**) and their significance evaluated in seeking to discover the experience of the four different

research participants (chapters 4 and 5). The philosophical importance of the non-inferential nature of intuitive apprehension will be commented on under the distinctive value of this research (section 7.16).

### 2.2.3 Some Phenomenological Characteristics of Insight

It may be helpful now, to draw attention to a number of intriguing phenomenological characteristics that are usually associated with insight (e.g. Halpern 1989, Metcalfe & Weib 1987, Ohlsson 1984a, p. 1984b). Seifert et al. (1995, p. 67) list the following:

- (1) *Suddenness*, in which insight seems to happen abruptly through a quantum leap of understanding instead of some incremental process
- (2) *Spontaneity* in which insight seems to happen internally of its own accord without the intention or effort of an instigating agent
- (3) *Unexpectedness*, in which insight happens by surprise and without warning
- (4) *Satisfaction*, in which insight elegantly fulfils a previously unresolved need, or problem, culminating in a triumphant “Aha!” experience

However, significantly, Seifert et al. (1995) do not include the phenomenon of *restructuring*, which entails a qualitative reformulation of the problem representation, and which classical gestalt psychologists considered as the *sine qua non* of insight (Scheerer 1963). Seifert et al. (1995, p. 67) assume that restructuring “constitutes one potential basis of insight, but that insight can (and does) stem as well from the addition of missing pieces to a formerly incomplete but appropriate mental representation”. This will be examined in more detail under the holistic approach of gestalt psychology, but at this point it is necessary to include it as the best working explanation of the characteristics of *suddenness*, *spontaneity*, *unexpectedness* and *satisfaction*. So finally:

- (5) *Restructuring* a wrong representation of the problem, or *completing* an otherwise correct, but incomplete schema representing the problem, resulting in insight (Mayer 1995).

## 2.3 The Holistic Approach of Gestalt Psychology to Insight

The historical precedence of the gestalt view of insight makes it a reasonable place to begin, not only because other traditions in psychology tapped into and worked with this view, but also because of the continuing value of understanding the phenomenon of insight in terms of a gestalt, in a holistic, structural and dynamic way.

A seminal work by the founder of gestalt psychology, Wertheimer (1959) has as its main theme *insightful problem solving*, and that is also the title of Duncker's (1945) celebrated monograph. Yet for Köhler (1947) in gestalt psychology insight is an experience, *verständlicher Zusammenhang*, which, he says, "may be expressed in English as *understandable relationship*" (Köhler (1947, p. 326).

The distinction between insight as *problem solving* and insight as *understanding*, as well as the way they come together, is part of life. As Gruber puts it:

We seek out problems as a way of testing and expanding our understanding of the world. The two meanings of insight come together: efforts towards comprehension evoke problems, and so on in a swirling stream. In our study of insight, we need to see how problems requiring insightful solutions grow out of a given understanding, and then how solution leads to changes in that understanding. (1995, p. 399)

Heale (1961) has documented the considerable body of gestalt literature, and Mayer (1995) has abstracted five inter-related examples of insight in the tradition of gestalt psychology. These will now be enumerated and their links to contemporary views will be indicated before these contemporary views are further examined and explored in subsequent sections.

### 2.3.1 Five Inter-Related Views of Insight in Gestalt Psychology

(1) The first example is *insight as completing a schema*. This view was due to the work of Selz (cited in Frijda & de Groot 1982, Humphrey 1963), who produced psychology's first non-associationist theory of problem solving. According to this view, insight occurs when a problem-solver fills in a gap in a structural complex (for an example, see Figure 1). His work foreshadowed not only the gestalt revolution that was to follow, but also the development of

modern cognitive psychology (e.g. Seifert et al. 1995). A particular example, which has already been touched on, is the insistence “that insight can (and does) stem as well from the addition of missing pieces to a formerly incomplete but appropriate mental representation” (Seifert et al. 1995, p. 67). This is simply another way of describing insight as completing a schema (see Figure 1 as an example).

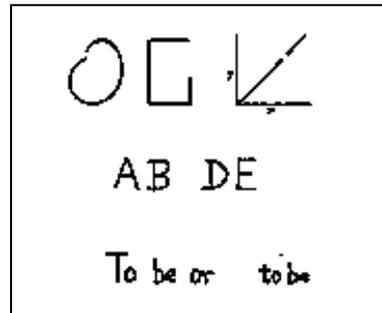


Figure 1. A variety of gaps evoking gap-filling behaviour (Gruber 1995, p. 401)

(2) The second example is *insight as suddenly reorganising visual information*. This view was due to the work of Köhler (1925, 1947, 1969) on the gestalt theory of perception. According to this view insight occurs when a problem solver literally looks at a problem situation in a new way (see Figure 2 as an example).

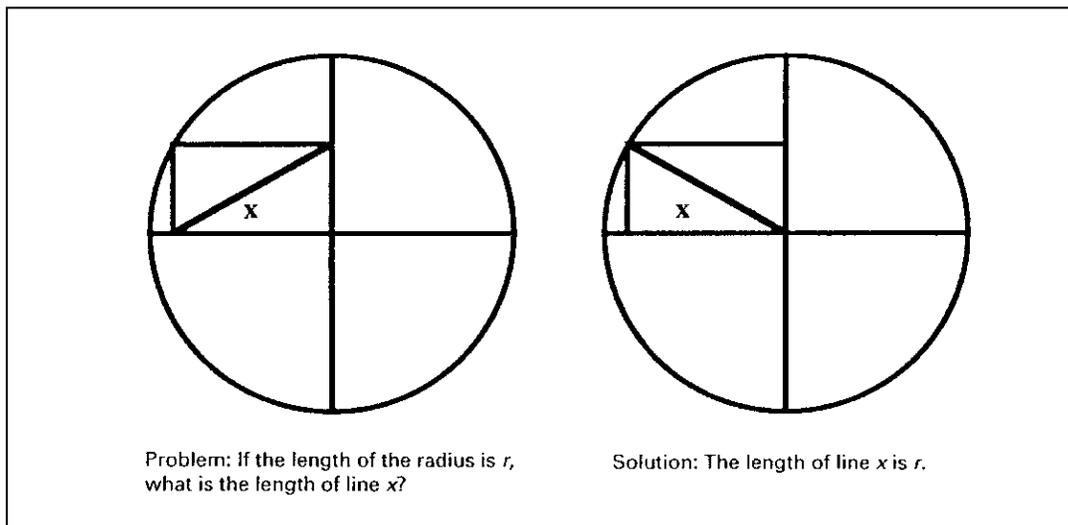


Figure 2. A geometrical problem and its solution (Köhler 1969, p. 146)

Köhler (1925, p. 217) describes insightful problem-solving as (1) representing “complete methods of solution” and as “complete wholes” rather than individual responses, (2) appearing “quite suddenly” rather than being gradually reinforced, and (3) being “never practiced formerly” rather than reproduced from prior experience. Köhler (1969, p. 146) concludes that “the decisive step is what we may call a re-structuring of the given material”. Interest in visual thinking is very much in vogue in modern cognitive psychology (Finke 1989, 1995, Kosslyn 1980, Schooler Fallshore & Fiore 1995). In particular, the role of computer-assisted visualisation and concrete representations that enable people to build mental models are the focus of on-going research in scientific and mathematical problem solving (Mayer 1989).

(3) The third example is *insight as reformulating the goal or restructuring the givens of a problem*. This view is derived from the work of gestalt psychologist Duncker (1945, p. 9) who expressed it succinctly: “What is really done in any solution of problems consists in formulating the problem more productively”. His most famous study involves the radiation problem (see Figure 3).

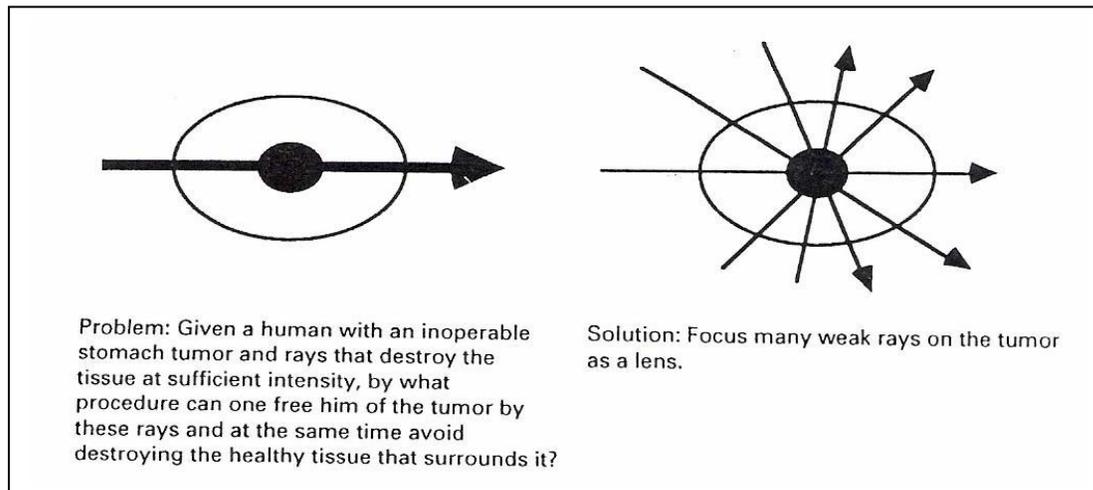


Figure 3. The tumour problem and its solution (Duncker 1945, p. 1)

Duncker provided empirical support for the idea that thinking often progresses through a series of qualitatively different phases, rather than as a linear chain of associations (e.g. Davidson 1995, Kaplan & Simon 1990, Metcalfe 1986a & b, Metcalfe & Wiebe 1987, Weisberg 1995). This view foreshadows the idea that humans are sense makers who are actively trying to construct *meaning* in what they encounter (Resnick 1989).

(4) The fourth example is *insight as removing mental blocks*. Luchins (1942) provided a classic example of how previous experience can block creative problem solving in his water-jar experiment (see Figure 4 below). The subjects's task is to "figure out on paper how to obtain a required volume of water given certain empty jars for measures" (Luchins 1942, p. 2).

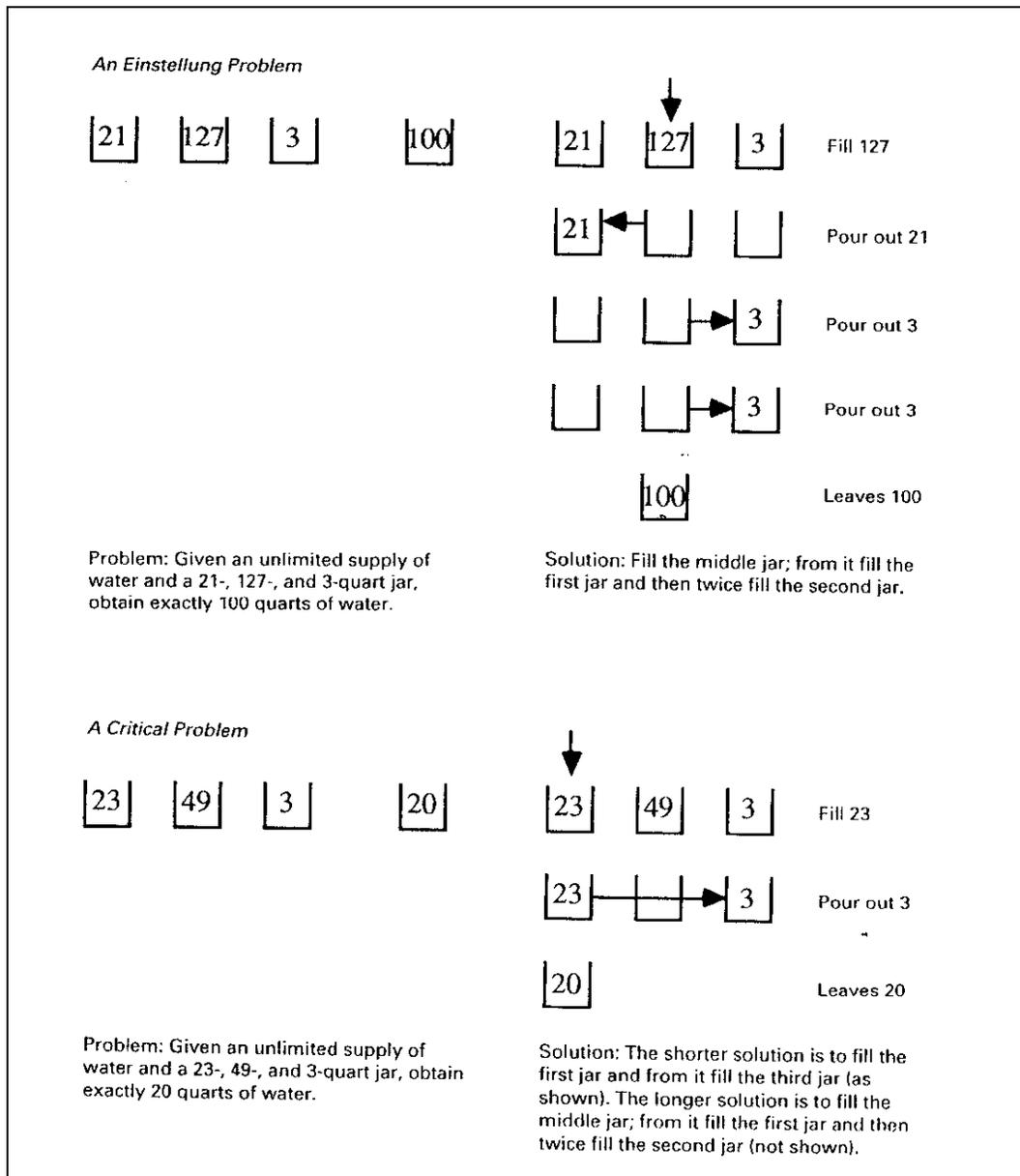


Figure 4. Some water-jar problems and their solutions (Luchins 1942, p. 2)

Subjects who solved the *Einstellung* problem, which is an ‘attitude’ or ‘ethos’ problem, tended to use the same more complex procedure (i.e.  $49 - 23 - 3 - 3 = 20$ ) when solving the *critical* problem rather than the shorter way (i.e.  $23 - 3 = 20$ ). In contrast, subjects who did not have to solve the *Einstellung* problem solved the *critical* problems using the simpler procedure.

So insight involves overcoming the learned way to look at a certain situation, in order to look at it in a new way, without mental blocks (see Figure 5 below).

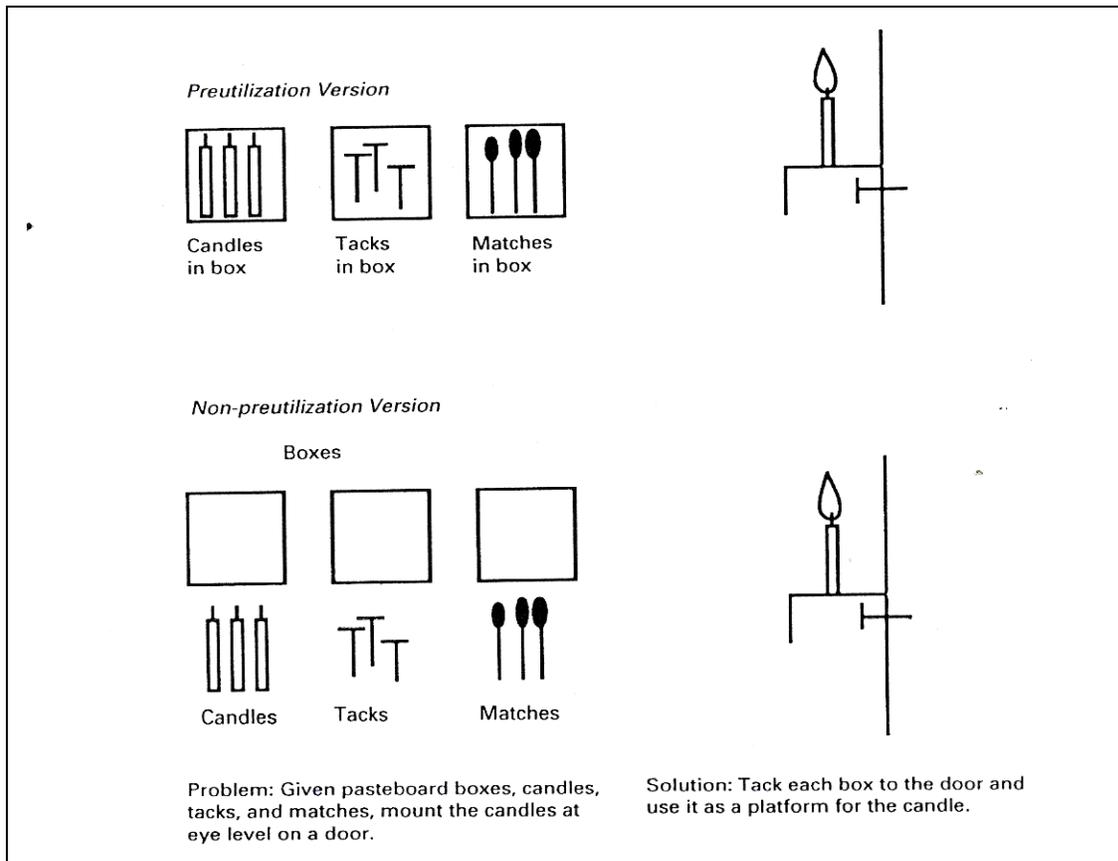


Figure 5. The box problem and its solution. (Duncker 1945, cited in Mayer 1995, p. 18)

Duncker (1945) referred to this phenomenon as “functional fixedness” when what was required was a novel use of the object (see Figure 5 above, for his box problem). This view of insight continues to stimulate research, theory and practice in the psychology of thinking. So for example the teaching of problem solving has become an educational goal (Chipman, Segal & Glaser 1985, Halpern 1992, Nickerson, Perkins & Smith 1985, Segal, Chipman & Glaser 1985, Sternberg & Davidson 1989). This is particularly true in the field of science and mathematics

(Halpern 1992, Polya 1965, van Hiele 1986), mentoring (Mayer 1992), computing (Anderson 1987), and is very much in vogue in business studies (Korthagen 2005).

(5) The fifth example is of *insight as finding a problem analogue*. In his gestalt classic, Wertheimer (1959) suggested that insight sometimes involves grasping the structural organisation of one situation and applying that organisation to a new problem. He provided a very simple example of finding the area of a parallelogram, assuming you know the area of a rectangle, to illustrate the distinction between rote learning and learning by understanding (see Figure 6 below).

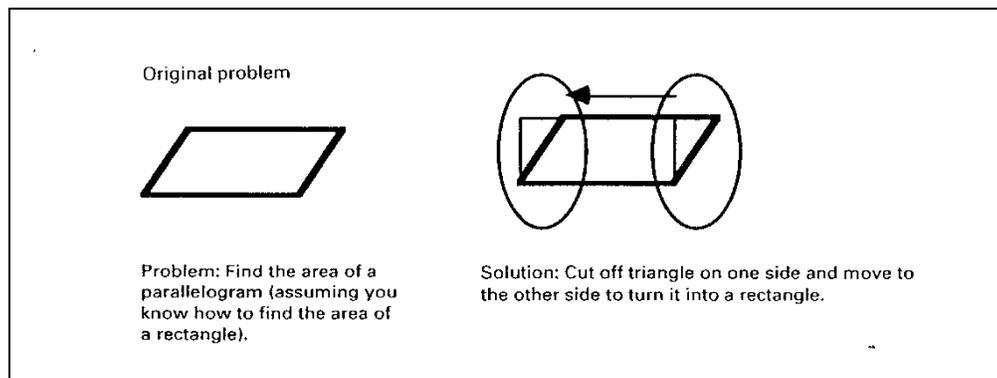


Figure 6. An area problem and its solution (Wertheimer 1959, p. 15)

He concluded: “What matters is ... how one applies what is recalled, whether blindly, in a piecemeal way, or in accordance with the structural requirements of the situation” (Wertheimer 1959, p. 62). Echoing Wertheimer’s thinking by analogy, modern cognitive psychologists continue their research on creative and insightful thinking (Detterman & Sternberg 1992, Dunbar 1995, Gentner 1983, Gick & Holyoak 1980 & 1983, Mayer 1992, Perkins 1995, Simonton 1995, Singley & Anderson 1989, Vosniadou & Ortony 1989). Trottier (2001) regards finding a problem analogue as the best of these five quasi-definitions of insight, but cautions that it “appears to be more appropriate as an explanation for insight (Chen & Daehler 2000) rather than a definition” (Trottier 2001, p. 6). The significance of this body of work will be explicated and evaluated under the third approach; that of cognitive psychology (2.5).

### 2.3.2 An Evaluation of the Contribution of the Approach of Gestalt Psychology

The strengths of this approach will be considered first and then the weaknesses.

#### *The Strengths*

(1) This emphasis on the experience of insight as an integrated whole – a gestalt - rather than simply the sum of individual stimuli and responses is particularly valuable. This *integrated whole* experience of insight is instantly recognisable. A classic example given in the Oxford Dictionary of Psychology illustrating the importance of this, is that:

the sequence of notes C,D,E,C,C,D,E, played evenly on any musical instrument is immediately recognisable as the well-known folk tune *Frère Jacques*, and the sequence F,G,A,F,F,G,A,F which does not contain a single element in common with the first, sounds exactly like the same tune; but the sequence E,D,C,C,E,D,C,C which contains the same elements as the first sequence in a new configuration, sounds like *Three Blind Mice*, an entirely different gestalt. (Colman 2001, p.16)

(2) The significance of these five inter-related views of insight as: *completing a schema, suddenly reorganising visual information, restructuring the problem, removing mental blocks* and *finding a problem analogue* is highlighted by the following summarising points:

(i) All five views have been taken up individually and developed in subsequent research as revealed in the references above, and are fundamental in the puzzle-problem approach of cognitive psychology (2.5).

(ii) All five views together appear as a gestalt with an *emergent* quality. As Merleau-Ponty (1964b, pp. 48-49) points out: “The melody is not a sum of notes, since each note only counts by virtue of the function it serves in the whole ... Such a perception of the whole is more natural and primary than the perception of isolated elements.” It is this meaningful whole of insight that is the enduring value of the gestalt view. As Wertheimer (1967, p. 5) expresses it: “What I hear of each individual note, what I experience at each place in the melody, is a *part* which is determined by the character of the *whole*”. Sadly, it is all too common in music, literature, art and human understanding for the appreciation of the *invaluable whole* to be lost in the critical analysis of the *valuable parts*; essential as critical analysis is, it is not possible to dissect a living thing.

(iii) All five views, with the addition of one more recent discovery, namely the role of *random recombination of ideas* that ultimately yields a fruitful synthesis, have been recast into a simple

network approach, using nodes and links and integrated into a single unified whole (Schilling 2005). In her article, she describes key results from work in graph theory on small-world networks and how these findings are related to key concepts in insight. By applying the small-world findings from graph theory to the explanations of insight from gestalt psychology as examined above, Schilling shows that the moment of insight may be the formation of new small-world network properties in the mind. In so doing, Schilling argues that the revolutionary nature of insight is due to the dramatic decrease in path length in the network of connected cognitive representations – a mathematically verifiable property of small-world networks. The fact that this research is constructed on the building blocks of gestalt psychology’s understanding of insight, is sufficient to make the point of the enduring value of this approach.

(3) So these five views of insight abstracted by Mayer (1995) from the considerable gestalt literature are not intended to be exhaustive, but to illustrate how relevant they remain, and challenge us to find a more holistic, structural and dynamic alternative to the tendency to an atomistic approach. It is generally acknowledged that for the gestalt psychologists the *sine qua non* of insight was defined in terms of a problem being solved through restructuring: “That is, if we compare the initial solution attempt(s) with the insightful solution, they must be the result of different analyses of the problem” (Weisberg 1995, p. 163).

### *The Weaknesses*

It is of course important to recognise the weaknesses and limitations of the approach of gestalt psychology. Essentially there are three:

(1) The basic shortcoming of Köhler’s approach, and that of classical gestalt psychology as a whole, is its objectivism. The self’s insight into meaning is essentially “a mirroring in consciousness of the direction taken by physical forces structurally at work in the cortex” (Fuller 1990, p. 163). This is the well known gestalt theoretical notion of *isomorphism*.

(2) Many gestalt experiments are tantalising and thought provoking, but hardly acceptable by modern standards of scientific methodological rigour and theoretical clarity (Dellarosa 1988, Ohlsson 1992, Weisberg 1986). Gestalt psychology’s research questions and tentative answers about insight are “too vague”, in Mayer’s opinion (1995, p. 27), “to be called right or wrong ... the real challenge is to reformulate and clarify in a more productive way the questions we have inherited”. It is very easy to criticize the approach of gestalt psychology on the grounds of its lack of scientific rigour, but as Mayer remarks:

sometimes the gestaltists are accused of being soft scientists, whereas contemporary psychologists consider themselves workers in a hard science. An alternative way to frame the distinction is that the gestalt psychologists worked on *hard* questions, whereas modern cognitive psychologists sometimes prefer *easy* ones. (1995, p. 26)

(3) Gestalt psychologists paid very little attention to human cognition or the question of why certain types of people are more likely to have creative insights than others (Sternberg 1988).

Nevertheless the lasting legacy of gestalt psychology is the recognition that the key to creative problem solving continues to be the process by which a person understands the underlying structure of a problem, a process that the gestalt psychologist called *insight*.

So having briefly surveyed and evaluated the holistic approach of gestalt psychology, it is appropriate to turn to the second of the nine different approaches to the phenomenon and experience of insight.

## **2.4 The Existential Approach of Phenomenological Psychology to Insight**

In contrast to the objectivism of gestalt psychology, existential phenomenology stresses the significance of being, experience and meaning, so in this approach it will be necessary to first sketch the backdrop of anxiety which is the context of insight. Then an existential-phenomenological theory of insight is propounded, revealing insight as: ‘impact’, ‘interpreting’ and ‘feeling’. Finally, the enduring significance and contribution of this existential-phenomenological theory of insight will be evaluated in terms of strengths and weaknesses. In this process, Fuller’s (1990) work will be used as a basic text, as it is arguably the best exposition of this theory applied to the understanding of insight.

### **2.4.1 The Courage to Be and See: Insight**

It has become almost a truism to describe our time as an “age of anxiety” with Tillich (1979, p. 44) and Auden’s (1948) *The Age of Anxiety*, and that was before the impact of environmental collapse was recognised. Tillich (1979, p. 5) defines the courage to be as “the ethical act in which man affirms his own being in spite of those elements of his existence which conflict with

his essential self-affirmation”. In discussing forms of anxiety, Tillich distinguishes three in which non-being threatens being, in terms of death, meaninglessness and condemnation:

Non-being threatens man’s ontic self-affirmation, relatively in terms of fate, absolutely in terms of death. It threatens man’s spiritual self-affirmation, relatively in terms of emptiness, absolutely in terms of meaninglessness. It threatens man’s moral self-affirmation, relatively in terms of guilt, absolutely in terms of condemnation. (1979, p. 49)

This is the context in which the struggle for insight takes place. If one of the phenomenological characteristics of insight, as identified in section 2.2.3, is the ‘Aha!’ experience, an elated sense of being, then one of the preconditions is to wrestle with the raw material of insight and the anxiety it provokes. The courage to be and see “resists despair by taking anxiety into itself” (Tillich 1979, p. 71).

#### **2.4.2 An Existential-phenomenological Theory of Insight**

Existential-phenomenological psychology finds that, in contrast to Köhler’s objectivism:

an activity of insight does indeed make a difference in the meanings we actually grasp: that insight is an invariantly required co-organiser of meaning, that insight has a standing of its own ... What is truly original is not meaning’s transphenomenal counterpart in objective space, but meaning itself in its structured truth as a life-world event ... a network of meaning forms all around us, beyond the cortex, beyond us altogether in the lived dimensionality of the existential space of possibility. (Fuller 1990, p. 164)

This is a strong statement that the insightful self *sponsors* meaning and that meaning itself is a *structured* truth. Reason and Rowan (1981, p. 241) state the phenomenological position graphically: “reality is neither subjective nor objective, it is both wholly independent of me and wholly dependent on me”. So “insight, vital interest on someone’s part, is partner to the formation of meaning in an existential space of possibility. There is no disinterested observer and no ‘mere’ facts” (Fuller 1990, p. 166). On the contrary, “[i]nsight is involved, excited understanding ... Uninvolved, unfeeling objective processes cannot provide the openness

meaning needs to come to a self-showing in its necessity” (Fuller 1990, p. 167). So insight is immediate contact with reality in terms of what is required, what is of value and wholes of meaning.

### 2.4.3 Insight as Impact and as Interpreting

One of the significant contributions of existential phenomenology to the understanding of insight is the recognition of the significance of the experience of what is often called *impact*. Heidegger articulated it thus: “To undergo an experience with something – be it a thing, a person, or a god – means that something befalls us, strikes us, comes over us, overwhelms and transforms us” (Heidegger 1971a, p. 57). Without actually using the word, his vivid depiction amounts to experiencing *impact*. Merleau-Ponty (1973b, p. 137) expressed it more precisely: “My perception is the impact of the world upon me”. So Fuller (1990 pp. 171-172), applying this experience more particularly to the experience of insight, writes: “Insight, as determined in openness by life-world meaning is *impact* ... The insight that determines its meaning does not create them, but rather is determined by their original structural integrity ... Impact is a felt sense of things, being affected by them”. In the impact of insight sensible meanings strike a responsive chord in us, stirring up intimations of itself within us. So “[i]nsight is letting life-world differences *be* in letting them touch us” (Fuller 1990, p. 178). The melody may haunt us, the demonstration convince us, and the sculpture bowl us over. We begin to tap our feet with the music, we are attuned and existentially involved.

Insight is both interpreting and impact, both determinative of and determined by meaning in its structural originality ... not two separate behaviours, but rather two ways of considering the same psychological reality: insight as *impact-interpreting* ... interpreting meaning is feeling the impact of meaning ... feeling the impact of meaning is an interpreting of meaning. Insight as interpreting and impact at once ... bodily self and sensible meaning ... determine one another circularly, reciprocally and simultaneously, each influence influencing the other even as it is influenced by the other. (Fuller 1990, p. 172)

What makes something be figure and something else be ground, Merleau-Ponty (1962) comments, is the way we concretely relate to them in our act of looking. It depends upon our

perspective. The interpretive determining of meaning is a situated enactment in an ongoing context. Heidegger, writing in *Being and Time* (1962a) and *On Time and Being* (1972, p. 15), expresses it particularly clearly: “The unity of time’s three dimensions consists in the interplay of each toward each.” So past, present and future are in active communication with one another and reciprocally determine one another, and enable past experience, present meaning and future possibilities to come together and influence one another in the experience of insight. Fuller argues that conventional psychology emphasises the *past*, Köhler introduces a *present* dimension, and phenomenological psychology introduces the *future* into psychology. So in existential-phenomenological terms, “[i]nsight as interpretively determinative of meaning temporally is the imaginative (future) releasing of meaning (present) from a perspective (alreadiness).” (Fuller 1990, p. 197)

From this perspective, interpreting involves liberating possibilities of significance and understanding involves venturing meaning and discovering whether it ‘rings true’. There is a creative freedom and openness in such insight. The category of the possible is an existential one, so “[i]t is not that the body and brain cannot venture meaning ... but that the body and brain *conceived objectively* cannot” (Fuller 1990, p. 192).

Insight is both active and receptive: an *active receptivity* and a *receptive activity*. Meaning and self do not relate to one another simply as subject and object as if they are distinct or independent or even opposing constituents. Meaning and self are circularly determinative of one other. They are like “interwoven strands of a single fabric, [or] inter-depending nodes of a single live system” (Fuller 1990, p. 194). Reference to inter-depending nodes of a single live system is reminiscent of Schilling’s (2005) “Small-World” network model of cognitive insight; but in this existential approach of phenomenology it is not conceived *objectively*. The understanding that we determine meaning and meaning determines us is the fundamental and distinctive contribution of this approach. So, in the experience of insight, the self and the world complete and complement one another. As Fuller (1990, p. 196) expresses it: “[they are] relative to one another reciprocally and simultaneously. A thoroughgoing, rather than a one-sided, relativity rules. Relativised, the *duality* of the self and the world is no longer the *dualism* of the subject and object”. So this is a very different symmetry of subject and object, with a very different valuing of human experience, and specifically the experience of insight, from the opposing concepts of ‘facts’ and ‘subjective

experience’, and the suspicion with which old-style natural science has often regarded subjective experience.

#### 2.4.4 Insight as Feeling

*Disposition* is the term used by phenomenologists to describe the affective dimension of *Dasein*’s (literally ‘being there’) situatedness in, and attunement to, life-world possibilities of significance. It conveys “what Heidegger calls *Befindlichkeit*, the alreadiness of the ‘affective self-finding’ of *Dasein*” (Fuller 1990, p. 199). So *disposition*, as much the sense of how things stand with us, as it is of how we stand with ourselves, is not just an inner subjective experience. It is always and already existentially beyond itself in the world.

This understanding of disposition is essential in order to grasp the significance of the term *feeling*, as used by phenomenologists, in relation to insight: it has a threefold temporal interplay in the experience of insight.

*Feeling* thus envisaged is the breadth of being already disposed to available meanings, the depth of imagining the possibilities meaning has coming to it, the immediacy of a present releasing of and being touched by meaning, precisely as these temporal dimensions of the self play into one another at the moment. (Fuller 1990, pp. 201-202)

So the term *feeling* is used in this rich way by existential phenomenologists to indicate “the affective character of our involvement in the world with an immediacy that the term *insight*, with its intellectual overtones, does not” (Fuller 1990, p. 202).

As Merleau-Ponty (1964c, pp. 226-227) reminds us, the last century “has wiped out the dividing line between ‘body’ and ‘mind’, and sees human life as through and through mental and corporeal”. To use Heidegger’s vivid image, “we do not ‘have’ a body in the way we carry a knife in a sheath...rather we ‘are’ bodily” (Heidegger 1979, p. 99). So meanings are taken up and lived bodily; a person may be *attuned* to the mood of the meeting, the critical tone of a voice, or the significance of political developments. This is entirely consistent with *The Feeling of What Happens* (Damasio 2000). Current neuroscience understands that all emotions use the body as their theatre, but emotions also affect the mode of operation of numerous brain circuits and are responsible for profound changes in both the body landscape and the brain landscape (Damasio

2000, Panksepp, Nelson & Bekkedal 1997, Panksepp 1998). There is no subjective - objective dualism. So Heidegger writes:

Beauty is not something on hand like an object of sheer representation. As an attuning, it thoroughly determines the state of man. Beauty breaks through the confinement of the 'object' placed at a distance, standing on its own, and brings it into essential and original correlation to the subject. Beauty is no longer objective, no longer an object. The aesthetic state is neither subjective nor objective. (1979, p. 123)

“Bodily feelings,” writes Fuller, “like their complementary life-world values are possibilities of existential space, not things inside us ... feeling does not merely accompany the ‘real understanding’ gained by other mental faculties ... To know is to feel; to feel is to know” (Fuller 1990, p. 207). This view is increasingly supported by neuroscience. As Damasio (2000, p. 43) argues, “it is possible that feelings are poised at the very threshold that separates being from knowing, and thus have a privileged connection to consciousness”. Something is felt to be false, ugly, useless; as somehow wrong; it ‘ought not to be’; or something is felt to be true, good, beautiful or perhaps useful; as somehow right; it ‘ought to be’. As Keats expressed it in the final lines of *Ode On a Grecian Urn* (cited in Garrod 1960, p. 210): “‘Beauty is truth, truth beauty’ – that is all/ Ye know on earth and all ye need to know”.

Without feeling, no problems would ever be discovered, much less solved, or even recognised as solved. Gestalts develop, meanings are emergent, in their being felt. Feeling – psychological openness – is involved in the self-formation of all cognitions, sometimes with more, sometime with less, intensity. “What is phenomenologically decisive in the phenomenon of feeling is that it directly uncovers and makes accessible that which is felt and it does this not, to be sure, in the manner of intuition but in the sense of direct having-of-oneself” (Heidegger 1982, p. 133). This is one reason why dictionary definitions of *insight* in terms of *intuition* were questioned previously. Although feelings, hunches and intuitions are psychological states, and indeed the very self itself, the things that feeling insight knows, its cognitions, are not; they are non-psychological life-world meanings; a *duality* is involved not a *dualism*. Other questions about the wisdom of including intuition in the definition of insight will be raised subsequently in the relevant sections.

#### 2.4.5 Disturbed Disposition: Unconscious Behaviour

It is important, in speaking of disposition and the place of feelings and interpretation in insight, to distinguish between ‘attuned disposition’ and ‘disturbed disposition’, and thus between ‘true insight’ and ‘misinterpretation’.

Heidegger points out that the usual and ‘natural’ interpretation of fear, for example, bases its account on the evil or threat approaching from the surrounding dangerous world (1962a, p. 392). Existential thought rejects such an interpretation; that a threatening object linearly and externally ‘triggers’ fear on our part. “Fear”, writes Fuller (1990, p. 210), “does not stand to threat as effect to cause ... The feeling of fear rather already is ahead of itself, venturing life-world possibilities, releasing something as the threat it can be ... not the ‘impact’ of an objectively given threat”.

In Fuller’s words:

In the disturbed disposition of phobia ... instead of finding ourselves flexibly open to what might do us harm, and indeed to what might not, we discover ourselves irrationally ‘threatened’ by things that in fact portend no significant harm to us at the moment.

Phobia has its reasons, to be sure, but these reasons, rather than being ahead of our lives, lie behind them mechanically and linearly governing present reactions, robbing both meaning and ourselves of a future ... phobia amounts to a loss of the freedom of the threefold temporal interplay (temporal circle) of impact-interpreting. (1990, p. 211)

This loss of freedom is particularly evident in forms of paranoia for example, and is characterised by suspicious ideas and beliefs of persecution or fixated delusions rather than flexible insight for understanding.

The term “disposition”, as used by phenomenologists, does not refer simply to a person’s internal natural qualities of mind, character or inclination as in conventional thought, but refers to the way in which we are existentially beyond ourselves to the world. So if disposition is linked with unconscious motivation, phenomenologists adamantly refuse to speak of “the unconscious” as an inner compartment; instead they assert it is more precise to speak of an unconscious relation to meanings, or unconscious drivenness, in which one literally no longer knows what one is doing. So phenomenologists speak of *unconsciously* motivated behaviour, of blind mechanisms being in charge, rather than the self. Fuller concludes:

Unconsciously motivated relations to the world stand in the starkest contrast, then, to relations of feeling insight to the world, where one has felt *structural understanding*, on the one hand, of the *understandable relationship* that prevails between one's meanings, and, on the other, of one's feelings and motivation in regard to those meanings. (Fuller 1990, pp. 212-213)

#### **2.4.6 An Evaluation of the Contribution of the Approach of Existential Phenomenology**

First the strengths of this approach will be considered, and then the weaknesses.

##### *The Strengths*

(1) It is important to recognise the significance of philosophical underpinnings of each of these approaches for our understanding of insight. A number of commentators (e.g. Heidegger 1977, May 1969, Polanyi 1978, Roszak 1992), have drawn attention to the fact that the western world is heir to over four centuries of scientific and technical achievements enabling humans to exercise power over nature and now over human nature. This is both the greatest human advance and at the same time the gravest human danger. In this context, the fundamental contribution and strength of existential-phenomenological philosophy and psychology, is its understanding of human *being*, the reality of human *experience* and the refusal to subordinate human *existence* to function.

Existentialism means centring upon the *existing* person; the emphasis is on the human *being* as he or she is *emerging* or *becoming*. The word "existence" comes from the Latin *ex(s)istere* "to emerge, come into being", from *sistere* "to cause to stand firm" (Rooney 1999). As May expresses it:

The extreme of the existentialist position is expressed in Jean Paul Sartre's statement that 'existence precedes essence', the assertion that only as we affirm our existence do we have any essence at all. This is a consistent part of Sartre's great emphasis on decision: 'we are our choices'. (1969, p. 17)

May (1969:21) argues that "without some concepts of 'being' and 'non being' we cannot even understand our most commonly used psychological mechanisms". The distinction, as May

(1969, p. 18) pointed out long ago, is whether the “person has meaning in terms of the mechanism” or the “mechanism has meaning in terms of the person”. The existential emphasis is firmly on the latter, and it holds that the former can be integrated within the latter. So insight cannot be understood just as a mechanism, but only on the deeper level of the meaning of the human being’s potentialities, including the individual’s unique pattern of abilities.

Phenomenology is the essential disciplined effort to clarify the presuppositions that cause us to see the phenomenon primarily through our own theories, prejudices, dogmas and systems in order to ‘bracket’ them; it is the effort to experience the phenomena of insight in their full reality as they present themselves.

This is particularly important in terms of the experience of insight. Deterministic presuppositions make it possible to understand everything about art except the creative act and the art itself. Existential phenomenology, as we have seen, regards the insightful self as *sponsoring* meaning, as “partner to the formation of meaning in an existential space of possibility” (Fuller 1990, p. 166). The argument is that the philosophical underpinnings of existential phenomenology are true, both to the nature of insight, as well as doing justice to the humanity of the person experiencing insight.

(2) It is a great strength to recognise and reflect on the value of psychological descriptions that are near and faithful to experience. For example, May (1969, pp. 19-20) reflects on his experience of writing his book *The Meaning of Anxiety* (1950). For a year and a half he was in bed in a TB Sanatorium. So he had a great deal of time to ponder the meaning of anxiety, and plenty of first-hand data of his own and his fellow patients. In this period he studied *The Problem of Anxiety* by Freud (1936) and *The Concept of Dread* by Kierkegaard (1946). May expresses his experience like this:

I valued Freud’s formulations: namely his first theory, that anxiety is the re-emergence of repressed libido, and his second, that anxiety is the ego’s reaction to the threat of the loss of the loved object. Kierkegaard, on the other hand, described anxiety as the struggle of the living being against non-being – which I could immediately experience there in my struggle with death or the prospect of being a life-long invalid. He went on to point out that the real terror in anxiety is not this death as such, but the fact that each of us within himself is on both sides of the fight, that “anxiety is a desire for what one dreads”, as he put

it; thus like an “alien power it lays hold of an individual, and yet one cannot tear oneself away”. (1969, p. 19)

What struck May (1969, p. 20), powerfully, was that Kierkegaard “was writing about *exactly what my fellow patients and I were going through*. Freud was not; he was writing on a different level, giving formulations of the psychic mechanisms by which anxiety comes about”. In contrast “Kierkegaard was portraying what is immediately experienced by human beings in crisis” (May 1969, p. 20). Freud was writing on a technical level; he *knew about anxiety*. Kierkegaard was writing on the existential level; he *knew anxiety*.

This example is not given in order to devalue one approach at the expense of the other; both are necessary. It is to draw attention to the value of psychological descriptions that are faithful to experience, particularly in our historical context and predicament. In the claim, for example, of strong Artificial Intelligence that computers can be programmed to adequately model human insight and indeed have insight themselves, as well as make scientific discoveries, there is an underlying danger. It is the subtle, dehumanising and reductionistic tendency to make human beings into the image of the machine, into the image of the techniques by which human experience, such as insight, is studied. The very detailed, respectful, descriptive and existential approach of phenomenology is of particular value in gaining understanding of the conscious experience of insight. Other approaches will be explored in subsequent sections which focus more on the unconscious mechanisms involved.

### *The Weaknesses*

(1) The current limitations and problems in the development of an existential-phenomenological psychology have to be seen in the context of its brief history in challenging dominant views of determinism and dualism, as well as in the partial understandings and misunderstandings of those seeking to apply it. Three problems will be mentioned; the first developmental, the second philosophical and the third practical:

(a) it naturally takes many decades to develop a new and coherent *human scientific* philosophical basis for psychology to effectively challenge the dominant *natural scientific* philosophy. Much has been done, but much remains to be done. Georgi’s (2004) articulation of “A Way to Overcome the Methodological Vicissitudes Involved in Researching Subjectivity”, drawing on the

work of the philosopher Mohanty (2000), is an excellent example of the patience, clarity and due humility required.

(b) there is a danger inherent in the necessary emphasis upon philosophical underpinnings of becoming lost in the terminology, theory and detached intellectualism, in the necessary but complex areas, which existential phenomenology explores and analyses. As May (1950, p. 90) observes in this context, “One can certainly become philosophically detached in the same way as one can be technically detached”. Precisely because existential concepts deal with profound issues of personal reality, “these concepts can the more seductively give the illusion of dealing with reality” (May 1950, p. 90).

(c) the opposite danger is the practical one of misunderstanding or misusing these concepts. So, for example, Williams and Irving (1996) argue that while some counsellors have adopted the principle tenets of phenomenology, they have built their work on an interpretation of *intuition*, which is contrary to phenomenological rationale, and have presented it as a form of knowing which is esoteric and mystical which does not allow counsellors to reflect critically on their practice. The situation would be very different if these counsellors had experienced *insight*, which by its very nature could be examined, and so enable inter-subjective verification and validation in the therapeutic setting, as well as providing material for subsequent critical reflection and elaboration.

(2) There appears to be a significant omission in the considerable body of existential-phenomenological research. There seems to be very little research based on the actual experience of insight of people in a variety of contexts in daily life, which is the natural setting for existential phenomenology, as opposed to an artificial laboratory situation. So, for example, there is no contribution from the theoretical perspective of existential phenomenology in the major work on *The Nature of Insight* (Sternberg & Davidson 1995). There is the very valuable *Study of the Kind of Therapeutic Self-Insight that Carries a Greater Sense of Freedom* (Todres 1990), but it is limited to therapeutic self-insight. There is some research on insight in psychotherapy (e.g. Williams & Irving 1996). There is also some research on orienting attitudes in the perception of illusions (Bors & Silberman 1993) which relates marginally to insight.

The research most closely related is *The Transformational Experience of Insight: A Life Changing Event* (Levitt, Frankel, Hiestand, Ware, Bretz, Kelly, McGhee, Nordtvedt & Raina

2004) which produces a model of insight generated by grounded theory analysis of interviews. It is an excellent and detailed qualitative study, but one limiting factor, from the perspective of this particular research, was that they were all essentially self insights; the core category was “integrating novelty: meeting challenges to interdependence”. Another important difference was that the computer programme, QSR-Nudist 4, was used to analyse and organise the data, which will not be used in this study.

There appears to be no existential-phenomenological study of insight as a complex Life-Event, such as Fischer and Wertz’ (1979) study on being criminally victimised. This research is a tentative first step towards filling that gap.

## **2.5 The Puzzle-Problem Approach of Cognitive Psychology to Insight**

The majority of researchers in the field of insight would identify with the general approach of cognitive psychology, so it may be helpful to begin by distinguishing between three alternative perspectives on insight within this broad approach.

### **2.5.1 Three Alternative Perspectives on Insight**

Seifert, Meyer, Davidson, Patalano, and Yaniv (1995) distinguish between the *business-as-usual perspective* which focuses on whether or not insight actually exists as a distinct, significant cognitive phenomenon; the *wizard Merlin perspective* which questions whether insight is scientifically researchable and understandable; and the *prepared-mind perspective* which is their own view as cognitive scientists.

(1) The *business-as-usual perspective* is exemplified by Langley and Jones (1988), Perkins (1981) and Weisberg and Alba (1981a,1981b). Those who represent this perspective are described by Seifert *et al.* (1995, p. 68) in these terms: “To the extent that they acknowledge insight’s existence at all, they attribute it to normal mental processes such as memory search, hypothesis testing, and trial-and-error solution attempts based on past experience”. Weisberg and Alba (1981a) found that subjects very seldom solved the classic nine-dot problem (see Figure 7 below) through a quantum leap of insight. Even after explicit hints, progress towards success

appeared to occur only gradually; “spontaneous reorganisation of experience does not occur during problem solving” (Weisberg & Alba 1982, p. 326).

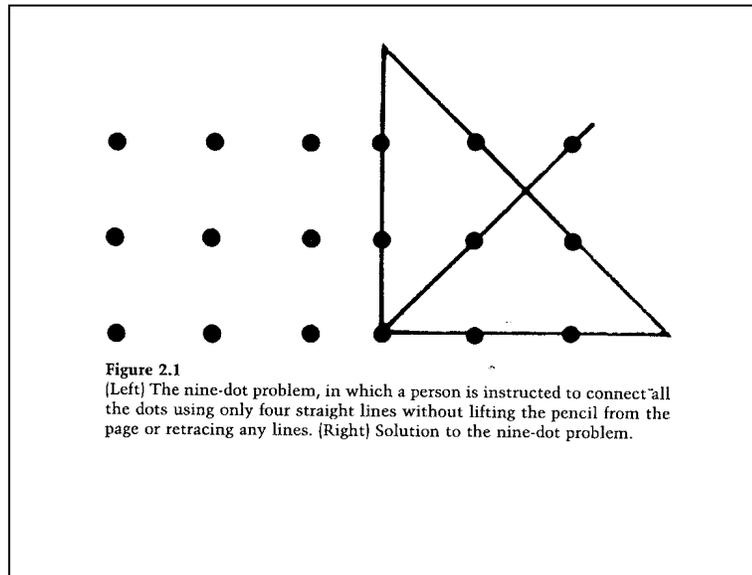


Figure 7. The nine dot problem and its solution (Dominowski & Dallob 1995, p. 43)

Other researchers espousing this business-as-usual perspective are Saugstad and Raaheim (1957) and Weaver and Madden (1949). The perspective is based on apparent failure to observe spontaneous insightful problem solving by students in laboratory situations. Despite the obvious limitations of examining such a significant experience in this particular way, other laboratory studies have revealed apparent intuitive quantum leaps of insight (Dominowski 1981, Metcalfe & Weibe 1987). In addition Popper (1968 cited in Bowers 1990, p. 94) warned “there is no such thing as a logical method of having new ideas, or a logical reconstruction of this process. My view may be expressed by saying that every discovery contains ‘an irrational element’, or ‘a creative intuition’”.

(2) The *Wizard Merlin perspective* is epitomised by Feynman. Kac, one of Feynman’s collaborators, is quoted as saying:

there are two kinds of geniuses, the ‘ordinary’ and the ‘magicians’ ... once we understand what they [the ‘ordinary’] have done, we feel certain that we, too, could have done it. It is different with magicians ... even after we understand what they have done, the process by

which they have done it is completely dark ... Richard Feynman is a magician of the highest calibre. (Gleick 1992, pp. 10-11)

Such examples, as Seifert et al. (1995, p. 74) argue, “attest strongly to the seeming reality of insight as a distinct, unique, and impressive mental feat worthy of further investigation: they do not make insight out to be just business-as-usual”. However they conclude that this makes it very difficult for “analysing and thoroughly understanding the mental processes that mediate true insight” (Seifert et al. 1995, p. 74), with the result that no scholars of note fully espouse it. Yet, the value of researching the lives and insights of particularly creative minds has contributed significantly to our understanding of insight. This will be examined in more detail under “The Great Minds Approach”, section **2.8**.

(3) The *prepared-mind perspective*, which regards insight as useful in understanding problem solving, (e.g. Davidson 1986, 1995, Dominowski 1981, Ellen 1982, Metcalfe & Wiebe 1987, Seifert et al. 1995, Sternberg & Davidson 1983) owes its origin to Wallas (1926) who outlined four major phases of information processing that may mediate innovative problem solving and creativity. These phases consist of a synergistic combination of (1) mental preparation, (2) incubation, (3) illumination, and (4) verification. A compelling, and very frequently cited illustration of each of these phases, is found in Poincaré’s account of his own creative process:

For fifteen days I strove to prove that there could not be any functions like those I have since called fuchsian functions. I was then very ignorant; every day I seated myself at my work table, stayed an hour or two, tried a great number of combinations and reached no results. One evening, contrary to my custom, I drank black coffee and could not sleep. Ideas arose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination. By the next morning I had established the existence of a class of fuchsian functions, those which come from the hypergeometric series; I had only to write out the results which took but a few hours.

Just at this time I left Caen, where I was living, to go on a geologic excursion under the auspices of the school of mines. The changes of travel made me forget my mathematical work. Having reached Countances, we entered an omnibus to go some place or other. At the moment when I put my foot on the step the idea came to me, without anything in my former thoughts seeming to have paved the way for it, that the transformations I had used

to define the fuchsian functions were identical with those of non-Euclidean geometry ... I did not verify the idea; I should not have had time ... but I felt a perfect certainty. On my return to Caen, for “conscience” sake I verified the results at my leisure. (Poincaré 1913, pp. 387-388, cited in Mayer 1992, p. 49)

This sort of experience is reported by other innovative mathematicians, scientists, artists, musicians, and a whole range of creative people. So these four phases, proposed by Wallas (1926), and their synergistic combination in cognitive psychology will be explored in more detail in the light of more recent scholarship in the following four sections: first, the mental preparation for insight (2.5.2); second, the incubation phase of insight (2.5.3); third, the process in the moment of insight (2.5.4); and fourth, the verification of insight (2.5.5).

### **2.5.2 The Mental Preparation for Insight**

“In the language of cognitive psychology, the preparation phase has a *priming* function” (Simonton 1995, p. 482). For this “priming” to be effective there are three conditions that need to be fulfilled:

- (1) The problem has to be taken seriously and confronted head on. Researchers stress the importance of motivation, problem analysis and mental representation as part of the preparation for insight (Kaplan & Simon 1990, Keane 1989, Ohlsson 1984b, Seifert et al. 1995). Frequently there is a failure to apply relevant prior information. Gick and Holyoak (1980) found their research subjects were not able to apply information from structurally analogous stories to solving insight problems such as Duncker’s (1945) radiation problem (2.3.1, Figure 3).
- (2) When an impasse is reached it must be recognised as such, even when success seems tantalisingly close, in order that “failure indices get properly stored” in long-term memory “to help guide the problem solver back to the problem...and become integrated with other general knowledge in long-term memory” (Seifert et al. 1995, p. 112). Sometimes there is an inappropriate use of stored information as illustrated in Maier’s (1931) two string problem. (See Figure 8 below.)

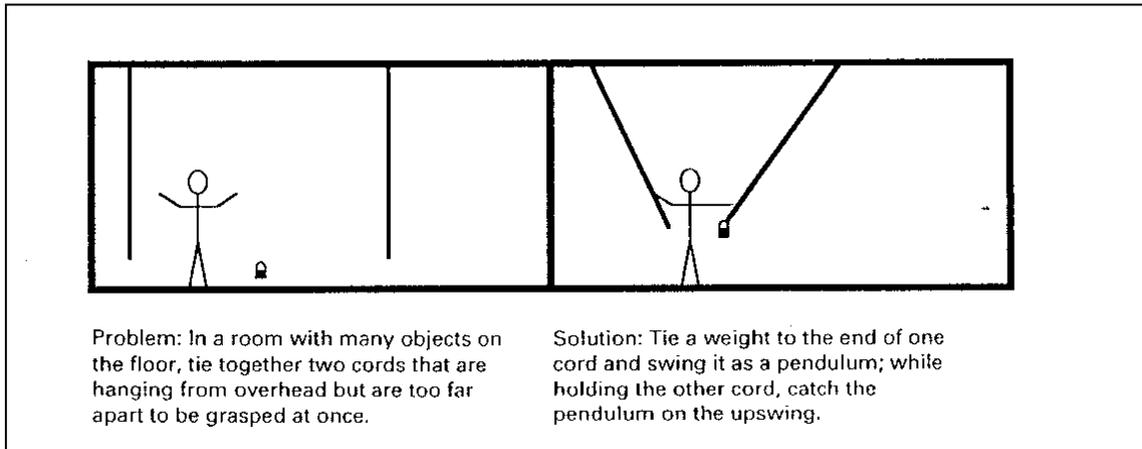


Figure 8. The Two-String Problem and its Solution (Maier 1931, cited in Mayer 1995, p. 15)

Subjects may have seen the pliers as a tool for grasping objects, rather than as a useful weight for making a pendulum; functional fixation.

(3) A prototypical positive example of mental preparation and developing expertise has been investigated by Chase and Simon (1973) who found that chess masters are superior to other players in terms of remembering meaningful and effective arrangements of pieces on a chess board. This type of structured analogous memory organisation is presumed to “facilitate their ability to select good moves” (Seifert et al. 1995, p. 80).

### 2.5.3 The Incubation Phase of Insight

Obviously research by natural scientific methods on the incubation stage of insight is inherently difficult. (For a review of hypotheses about incubation effects, see Anderson 1990, Glass & Holyoak 1986, Posner 1973.) There have been essentially four main hypothetical possibilities according to Seifert et al. (1995):

(1) The least interesting is the *intermittent covert conscious work hypothesis* on the problem, which is hardly incubation or easily distinguishable from preparation.

(2) The next mundane possibility is the *fatigue-dissipation hypothesis*, a fancy name for a rest, enabling the problem to be seen in a new way as a result of being refreshed and reinvigorated.

High arousal tends to increase the dominance of high-probability associations at the expense of

low-probability associations (Simonton 1980, Zajonc 1965). So it is no accident that the final insight may arise when the individual is engaged in some relaxing activity, as during Poincaré's beach stroll.

(3) This, regarded by Seifert et al. (1995) as more interesting from a cognitive standpoint, is the *selective-forgetting hypothesis*, in which the incubation phase allows problem solvers to forget, or leave only weak residual memory traces, of inappropriate solution strategies.

(4) Finally, and most mysterious, is the *subconscious random-recombination hypothesis*, in which incubation allows relevant information in long-term memory to recombine in an insightful synthesis. As an example, consider how the ring-like molecular structure of the organic compound benzene was discovered by the chemist Kekulé:

I turned my chair to the fire and dozed ... again the atoms were gambling before my eyes ... My mental eye ... could now distinguish larger structures, of manifold confirmation; long rows, sometimes more closely fitted together; all twining and twisting in snake-like motion. But look! one of the snakes had seized hold of its own tail, and the form whirled mockingly before my eyes. As if by a flash of lightning I awoke. (Koestler 1964, p. 118)

It seems as if Kekulé was stimulated by new perceptual information through dreaming. His image of the snake seizing its own tail, which closely parallels the actual structure of the benzene ring, led to the discovery of the benzene ring.

“In assessing these various possibilities, a mix of the subconscious random-recombination and conscious-work hypotheses seems most favoured by the introspective reports of some creative individuals” according to Seifert et al. (1995, p. 83).

One of the obvious problematic limitations of laboratory studies of insight, and of the hypotheses outlined above, is that they focus too exclusively on internal cognitive processes, hermetically sealed from *life-world* experiences. Carefully controlled “hints” are hardly an adequate substitute. Fleming's discovery of penicillin, which stemmed from his accidentally noticing an absence of bacterial growth on the bottom of a dish, illustrates Pasteur's famous remark “chance favours the prepared mind” (cited in Posner 1973, p. 148). This has some similarities with Smith's (1995) suggestion that the context may facilitate insight.

So Seifert et al. (1995) promote a *fifth* hypothesis, based on the significance of failure indices in long-term memory, and assimilating a new stimulus into the prior memory representation of the problem; like adding a missing piece to a jigsaw puzzle. Their rubric for this is the *opportunistic-assimilation hypothesis*; their vivid illustration of this is Feynman's experience:

Finally they get all this stuff into me, and they say, "the situation is so mixed up that even some of the things they've established for years are being questioned – such as the beta decay of the neutron is S and T [a specific type of particle interaction]. Murray [Gell-Mann] says it might even be V and A [another specific type of particle interaction], it's so messed up". I jump up from the stool and say, "then I understand EVVVVVRY-THING!" They thought I was joking. But the thing I had trouble with at the Rochester meeting [a previous conference] – the neutron and proton disintegration: Everything fit *but* that, and if it was V and A instead of S and T, that would fit too. Therefore, I had the whole theory! I went on and checked some other things, which fit, and new things fit, new things fit and I was very excited ... I had this new equation for beta decay ... It was the first time, and the only time, in my career that I knew a law of nature that nobody else knew. (Seifert et al. 1995, p. 94, quoted in Crease & Mann 1986, pp. 213-214)

This corresponds with Simonton's (1995, p. 483) *external subliminal associative priming hypothesis*. So a casual remark, by a disillusioned colleague, about the situation being so confused that it might even be V and A rather than S and T, leads Feynman, the exemplar of the Wizard Merlin perspective on insight, for the first and only time in his career, to the awesome experience of realising that he knows a law of nature that nobody else knows: such is the richness of the life-world!

Consideration of the incubation phase of insight inevitably leads into the moment of insight which has been the focus of intense research.

#### **2.5.4 The Process in the Moment of Insight**

Having *first* considered the mental preparation for insight and *second* the incubation phase of insight, the *third* question is what happens in the moment of insight? The relevant research will be considered from three perspectives; the cognitive (2.5.4.1), the affective with the distinctive "Aha!" experience (2.5.4.2) and the behavioural (2.5.4.3).

#### 2.5.4.1 The Cognitive Components of Insight

Gick and Lockhart (1995) elaborating on previous work, propose three possible points of difficulty in the insight problem solving process; they all turn on the key gestalt understanding of the importance of the *representation* of the problem of insight: One is *accessing* an existing representation that will effectively solve the problem. The second is *constructing* a new representation from existing elements, when no solution-generating representation exists. The third dimension of difficulty is *applying* the representation, as perceived, to obtain the solution.

They suggest these are three relative dimensions of difficulty as they may exist in varying degrees for different problems and for different problem solvers. So one person's insightful problem solving may be another's routine problem solving owing to differences in knowledge representations.

Another attempt to analyse the cognitive components of insight is the three-process theory (Davidson 1986,1995, Davidson & Sternberg 1986), according to which much of the difficulty psychologists have had in isolating insight is because it involves at least three processes rather than a single one; selective encoding, selective combination and selective comparison.

*Selective encoding* occurs when a person suddenly sees in a stimulus, or set of stimuli, one or more features that have not been obvious previously. This can contribute to restructuring one's mental representation of relevant information. Davidson (1995) gives Semmelweis's discovery of the importance of asepsis as an example of selective encoding in insight. When he noticed that more women on the poor ward of the General Hospital in Vienna were dying from infection during childbirth than were women on the rich ward, "he encoded that doctors washed their hands less frequently while on the poor ward and realised the relevance this had for spreading puerperal fever" (Davidson 1995, p. 128).

*Selective combination* occurs when one suddenly puts together elements of a problem situation in a way that previously has not been obvious to the individual. It is often difficult to find an appropriate and effective combination. Davidson (1995) gives Darwin's formulation of the theory of evolution as an example, involving selection combination in insight, because he "had all the facts for a long time: what he finally discovered was how to put them together to form a coherent theory" (Davidson 1995, p. 128).

*Selective comparison* occurs when one suddenly discovers a non-obvious relationship between new information and information acquired in the past. It is here that analogies, metaphors and models are used to enable insight. Davidson gives Archimedes' theory of specific gravity as an example of selective comparison in insight to determine whether there were impurities in it:

He noticed that the amount of water that was displaced was equal to the volume of his body that was under the water. By drawing an analogy between his bath and the problem with the crown ... He could compute the crown's volume by placing it in water and measuring the amount of displaced water. The crown could then be weighed against an equal volume of [pure] gold. (Davidson 1995, p. 129)

This theory is process-orientated rather than problem-orientated, and the key is to select the relevant elements, the relevant combination and the relevant comparison(s). To be referred to as *insightful* the processes must seem to occur abruptly when they do occur and, once they have occurred, must result in a change in the person's representation of the problem. Davidson (1995) argues that *insight* is part of *intelligence*, and found that the highly intelligent subjects performed better on all types of problems than the average ability subjects.

It is widely recognised that individuals who are most productive of original ideas usually display exceptional intellectual versatility (Davidson 1986, Raskin 1936, Simonton 1976, 1995, White 1931). One manifestation of this versatility is an insatiable curiosity about developments beyond the confines of a particular speciality area (Manis 1951, Simon 1974). Darwin, for example, read the *Essay on Population*, "for amusement" (Gruber 1995, p. 424), yet the Malthusian thesis propelled Darwin towards the central insight of his own theory.

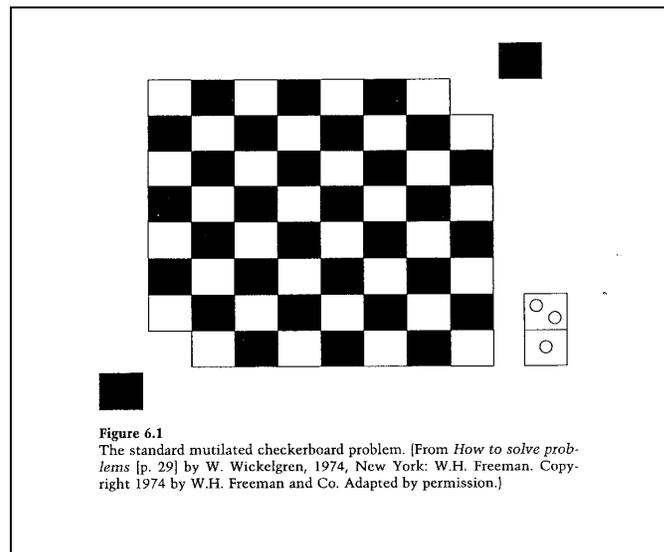
#### **2.5.4.2 The Affective Components of Insight**

Gick and Lockhart recognise that although the "Aha!" response to insight "is the one to have received the most attention and concern, we believe that there are other affective components to problem solving in general, and to insightful problem solving in particular" (Gick & Lockhart 1995, p. 203). This is surely true at each stage of the process:

(1) There is an affective component in finding and engaging with the problem, for example, deciding to study a problem in the first place (Getzels & Csikszentmihali 1976). As Gick and Lockhart comment "the affective component may play a big role in motivating the problem

solver” (Gick & Lockhart 1995, p. 203). If this is true in laboratory puzzle problems, which is the context of their comment, how much more is it an obvious truth and compelling component of life-world situations.

(2) There is an affective component in motivating the problem solver to stay with the problem in the face of failure to solve the problem. For example, the experience of “reaching an impasse while attempting the mutilated checker-board problem...may result in feelings of being stuck and frustrated or irritated” (Gick & Lockhart 1995, p. 203). (See Figure 9 below.)



**Figure 9.** The standard mutilated checkerboard problem. (Wickelgren 1974, cited by Gick & Lockhart 1995, p. 198)

*Problem:* 32 dominoes cover exactly 2 adjacent squares, of the 64 squares on the checkerboard. If 2 squares are cut off at diagonally opposite corners of the board, how would you place 31 dominoes so that all 62 remaining squares are covered? If you think it is impossible, give a proof of why.

*Hint:* Consider the colour of the squares of the board.

Again, how much more is this true in real life when so much more depends on the outcome. The importance of failures in expectation, and the explanations constructed to account for them, in contributing to understanding and new knowledge representations, have been discussed extensively by Schank (1986).

(3) There is an affective component in the transition to a solution state, in which at least part of the experience may be a feeling of an intuitive nature. As Gick and Lockhart (1995, p. 214) comment, “expert scientists often seem to have a strong intuitive sense that a newly conjectured

representation will work although formal evaluation may remain a long way off”. It is a misunderstanding and over-simplification of the creative process to suppose that the discovery of complex theories happens in a single “Aha!” experience; however such an experience of insight may often be true of critical elements or stages in the development of a theory. For example, Watson (1968, p. 123) describing a stage of formulating the structure of DNA writes, “suddenly I became aware that an adenine-thymine pair held together by two hydrogen bonds was identical in shape to a guanine-cytosine pair held together by at least two hydrogen bonds”. “This sudden awareness”, as Gick and Lockhart (1995, p. 214) express it, “does not correspond to a transition from total puzzlement to total understanding about the overall structure of the DNA, but as an important step in the progression towards the final solution. It appears to have the essential properties of insight”, as they have described it, in terms of “a transition to a solution state, at least part of which does not involve step-by-step reasoning”.

So three important affective components of insight prior to the actual “Aha!” experience of insight have been identified. The distinctive “Aha!” experience is the characteristic affective response accompanying insight. For example, in Poincaré’s words “I did not verify the idea; I should not have had time ... but I felt a perfect certainty” (Poincaré 1913, p. 388). Gick and Lockhart (1995) propose that this affective response, the “Aha!” accompanying the transition to a solution state, consists of two components:

(1) The first aspect is that of *surprise*, which is a result of the fact that the representation that will solve the problem is different from the initial representations attempted. As Gick and Lockhart (1995, p. 215) comment about this surprise, “there is something of the same intuitive sense of success along with the hesitancy that comes with a lack of explicit verification, in Watson’s description of the final stages of the discovery of the structure of DNA”:

Upon his arrival, Francis [Crick] did not get more than halfway through the door before I let lose that the answer to everything was in our hand ... however we both knew that we would not be home until a complete model was built in which all the stereochemical contacts were satisfactory ... I felt slightly queasy when at lunch Francis winged into The Eagle to tell everyone within hearing distance that we had found the secret of life. (Watson 1986, pp. 125-126)

(2) The second aspect is that of *suddenness*, which derives from the fact that the correct representation leads to an easy application and solution and, therefore, the solution seems to

appear suddenly. The extent of the surprise will depend on the degree of incongruity between the original representation(s) and the representation that solves the problem. So, for example, a “joke sets up an expectation that does not fit with what is generated by the punch line, and humour is found in the resolution of the incongruity” (Gick & Lockhart 1995, p. 203).

Similarly, accepting the dominant interpretation generates the internal contradiction that constitutes the riddle which is not resolved until the initial meaning is replaced by the non-dominant meaning (Long & Graesser 1988). In addition, the nature of the surprise may vary between positive (delight) and negative (chagrin). Often as Gick and Lockhart (1995) point out, there is not only the satisfaction of having solved the problem, or riddle, but also the sense of having escaped the power of dominance, the tyranny of the phenomenon of automatisisation; vividly illustrated in the Stroop affect.

This process is often referred to as *fixation* (Dominowski 1981, Smith 1995, Weisberg & Alba 1981a&b). Some jokes are still funny even on being repeated, and some riddles are still not solved immediately, even when they have been heard before and the solution is ‘known’. Gick and Lockhart (1995, p. 209) “suspect that this is because the riddle and joke still have the capability to invoke a dominant but incorrect representation”.

#### **2.5.4.3 The Behavioural Components of Insight**

Simonton (1995, pp. 483-484) maintains that what he calls a “priming process” explains some contextual features of insights. Taking these considerations seriously may lead to a conscious and deliberate change of behaviour in order to maximise the benefits of increasing the possibility of insight. He specifies three effective “priming processes”:

- (1) Insights frequently occur when the creator gives up on a particular problem and turns to other activities. Even taking a total vacation from professional concerns may expose the incubating mind to the influx of new and potentially fruitful associations.
- (2) Those individuals who are most prolific in the production of important insights commonly engage in many varied projects simultaneously (e.g. Simon 1974, Tweney 1990). As Poincaré (1921) indicated in the beach-stroll anecdote, the central component of a major synthesis often emerges from cross talk between hitherto unrelated works in progress.

(3) Eminence in a creative endeavour is strongly associated with having many professional contacts (Simonton 1984a, 1992a, 1992b). Whether deliberately or inadvertently, exchanges with rivals, correspondence, colleagues, collaborators and other associates can prime new associative explorations.

So, for example, it is often said that the value of international conferences is not primarily due to the content of the papers presented, but rather in the contacts, relationships and ideas that may emerge informally and can be followed up. The frequency of these conferences is evidence of the valuing of this opportunity for professional stimulation and the possibility that it will contribute to further understanding and insights.

#### **2.5.4.4 A Merger of the Cognitive and Affective Components of Insight**

In an attempt to take the research forward, the three-process theory of Davidson and Sternberg's approach to studying insight (Davidson 1986, Davidson & Sternberg 1984,1986,) was merged with Metcalfe's feelings-of-warmth (nearness to solution) approach (Metcalfe 1986b, Metcalfe & Weibe 1987). In general, the theory was supported, previous research replicated and merging approaches validated for future research. Six particular findings reported by Davidson (1995) are of interest:

(1) Subjects who solved the insight problems correctly were more likely to switch strategies, indicating that these problems were restructured before being correctly solved.

(2) High feelings of warmth predict failure to solve the un-cued insight problems, but do not predict failure on un-cued non-insight problems, indicating that insight cannot be predicted before it occurs.

(3) Highly intelligent subjects gave lower warmth ratings on un-cued insight problems than subjects of average intellectual ability. This difference is believed to be due to the fact that average ability subjects solved more of the insight problems incorrectly and had high feelings of warmth for their incorrect solutions.

(4) Correctly solved insight problems show an abrupt and dramatic increase in ratings from 1 to 10 when a solution was reached (confirming the "Aha!" experience) whereas correctly solved more routine, non-insight problems, show an incremental pattern of about 5 points.

(5) Insight seems to be a necessary, but not sufficient, condition for solving many selective combination problems, because problem solvers still have to work out the details. This finding is in agreement with the view that verification follows illumination (Wallas 1926).

(6) High ability subjects take longer to solve insight problems than do average ability subjects (whose solutions are more frequently incorrect) because often considerable preparation time is needed before insight can be experienced.

Clearly there is value in this approach and yet it is a limited exploration of cognitive and affective components of insight. Further research is needed, yet some limitations may be inherent in the approach of cognitive psychology itself.

### 2.5.5 The Verification of Insight

As Poincaré says of his experience of insight as he put his foot on the step of the bus, “I did not verify the idea; I should not have had time ... but I felt a perfect certainty. On my return to Caen, for ‘conscience’ sake I verified the results at my leisure” (Poincaré 1913, p. 388).

Poincaré uses the same term *verify* as Wallas (1926). While illumination is an immediate *seeing* of something not seen before, verification is a conscious effort to explicate *what* is seen and to incorporate it into a larger body of insight. Verification is clearly the correct term in a mathematical context, but Greenman (1987, p. 126) argues that in other contexts “it is not verification in any strict sense except that of either a coherence or a pragmatic or existential theory of ‘truth’. The term *validation* would, perhaps, be better”.

Although it is convenient and useful to speak of Preparation, Incubation, Illumination and Validation as four *stages* in the insight process, it is important to bear two things in mind; *firstly*, that it is a synergistic combination rather than four distinct and separate stages, and *secondly* that what is verification or validation with respect to a particular insight is, at the same time, preparation for further insight.

### 2.5.6 Some Questions about “Insight Problems” in the Laboratory

The creative process, including insight, is notoriously unpredictable, and compared to other logical processes, is comparatively rare (Hademard 1949). This makes laboratory research on insight extremely difficult. There is evidence (e.g. Dunbar 2000) that artificially induced insight in laboratories, by the use of carefully devised but comparatively trivial insight problems, does not possess the same *quality* as insights occurring spontaneously in a more natural environment, which frequently use deeper and more structural analogical features.

According to Pols (2002, p. 17), “insight problems are at least as important for the study of insight as insight itself. For without insight problems, insight (in problem solving) wouldn’t even exist”. This myopic statement about the character of insight is the result of a view of insight entirely restricted to the puzzle problem approach in a laboratory setting.

Weisberg (1995), while not advocating the truth of the gestalt conception of insight, argues that it is possible to use the gestalt definition of insight to clarify insight problems; namely, “insight brought about through restructuring of the problem situation” (Weisberg 1995, p. 161). He reaches three main conclusions:

- (1) The taxonomic classification indicates that a significant proportion of the problems regularly used in investigations of insight are not actually solved through insight in the classical sense. In some, the solution can only occur through insight (called “pure insight problems”), whereas in others, the solution can be brought about *either* through insight *or* in other ways (called “hybrid insight problems”). Out of twenty-four insight problems Weisberg (1995) identifies five as hybrid, including the very frequently used nine-dot geometrical problem in 2.5.1, Figure 7.
- (2) Examination of a broad range of problems classified as insight problems indicates that, when insight occurs, it occurs in different ways for different problems. This indicates that insight may not be a unitary phenomenon, which questions theories that purport to explain insight in terms of a single set of mechanisms.
- (3) On the basis of the first two points he questions the generality and ultimate importance of the concept of insight.

These issues deserve detailed responses. In relation to point (1), it has to be acknowledged that scholars have drawn contradictory conclusions from data on the same problem, for example, with reference to the nine-dot problem. In this case Weisberg (1995, p. 162) does not seem aware that “instructing subjects that the solution to the problem depended on their lines going outside the square, thereby restructuring the problem for the subjects”, is not the same as the subjects having the insight to restructure the problem for themselves. In fact Weisberg and Alba (1981) found that after receiving the hint, more than seventy-five percent of the subjects were still unable to solve the problem. Yet, years later, Weisberg still draws the conclusion that “this resulted in their drawing lines outside the square, but it did not significantly facilitate solution, which contradicts the gestalt view” (Weisberg 1995, p. 162). This seems to betray an inadequate understanding of the gestalt view of restructuring, an over-optimistic sense of the power of ‘hints’ (Burke 1972), and an impoverished experience of insight, in the same way that explaining a joke ruins it.

In relation to the point (2), that when insight occurs it occurs in different ways for different problems, there is no argument. That is exactly what one would expect, and it does question theories that purport to explain insight in terms of a single set of mechanisms. The gestalt view of restructuring as a change in the thinker’s representation of the problem (Ohlsson 1984b), was never intended to be reduced to “a single set of mechanisms”. This is the clear implication of Mayer’s (1995) exploration of a collection of five inter-related examples of insight in the gestalt tradition, outlined earlier in **2.3.1**. It is also the clear implication of Davidson’s (1995) “three-process theory of selection in insight” in **2.5.4.1**, involving selective encoding, selective combination and selective comparison.

Finally, in relation to the point (3), that on the basis of the first two points, Weisberg (1995, p. 159) raises “questions about the generality and ultimate importance of the concept” of insight. The value of many of Weisberg’s observations has to be acknowledged. For example, that the solution of the fake coin problem (Weisberg 1995, p. 185) used in several investigations of insight, “requires the significance of *BC* in the date become clear to the problem solver which could be described by saying that he or she must achieve insight into the significance of *BC*”. But it is necessary to differentiate between merely *superficial* and properly *structural* experiences

of insight and in this case it “is not using insight in the classical, technical sense of restructuring” (Weisberg 1995, p. 166). So clearly it is not a “pure” insight problem, but a “hybrid” problem, in Weisberg’s terminology. It is important to acknowledge that his probing, questioning and taxonomic classification plays a valuable role in keeping researchers honest, and exposes some of the limitations of laboratory insight problems, and has empirical support (Chronicle, MacGregor & Ormerod 2004). Nevertheless his final rather sweeping conclusion questioning “the generality and ultimate importance of the concept” of insight, does not seem to be warranted by the evidence of the first two points. This conclusion is considerably reinforced when the importance and creative significance of real *life-world* experiences of insight are considered, which is explored in more detail later.

Another perspective on the limitations of laboratory experiments is provided by Dunbar (2000) in exploring *The Analogical Paradox*. He examines why subjects in many psychological experiments tend to focus on superficial features when using analogy (Blanchette & Dunbar 1998, 2000), whereas people in more natural everyday contexts frequently use analogy with deeper and more structural features. His main conclusion is that in natural everyday contexts information is encoded, and therefore may be retrieved, in a *richer* way. He also draws attention to three related facts:

- (1) Analogy is a key component of human mental life (Hofstadter 2000, Holyoak & Thagard 1997).
- (2) There is a similarity between analogy and metaphor (Gentner 2000).
- (3) Psychologists have found that analogy is a very powerful way of changing opinion (Thagard & Shelley 2000) so is frequently used by politicians (Dunbar 2000, Faries & Reiser 1990) and scientists (Dunbar 1995, 1999, 2000).

Another example of the limitations of laboratory insight experiments is of the difficulty of seeking evidence of incubation in laboratory studies (Alton 1979, Alton & Johnson 1976, Dreisdadt 1968). Typically, subjects work on a problem for a while, take a break and then return to the problem. Control subjects work without a break but for the same total length of time. Despite the obvious inadequacy of evidence based on such a limited laboratory procedure, compared with real life experience, an astute researcher such as Perkins (1995, p. 526) concludes

“in summary, there is little reason to believe that incubation, in the sense of extended unconscious reasoning, exists”.

### **2.5.7 An Evaluation of the Contribution of the Approach of Cognitive Psychology**

It is important to recognise the breadth of research conducted by cognitive psychologists. It is both a sign of healthy activity and of bewildering variety in terms of definitions of insight, understanding exactly what constitutes an insight problem, and competing models of the mechanisms underlying the phenomenon of insight. These will be evaluated in more detail in terms of strengths and weaknesses in this section.

#### *The Strengths*

- (1) The number and variety of quality research papers being produced on cognitive psychology needs to be acknowledged; they far outweigh contributions from other schools of psychology.
- (2) The value of careful and detailed work on specific areas of insight, largely building on the contribution of restructuring from gestalt psychology, has enabled cognitive psychology to move from dissecting stimuli into components, to a more holistic concern. An example would be the work of Davidson (1986,1995) and Davidson and Sternberg (1986) in recognising the three inter-dependent selective processes of encoding, combination and comparison resulting in a change in the person’s representation of the problem.
- (3) The increasing recognition by cognitive psychologists of the significance of affective components of insight is also a factor; for example, Gick and Lockhart (1995) and the integration of research, such as the merger described by Davidson (1995) of the three process theory with Metcalfe’s (1986b) feelings-of-warmth approach (Metcalfe & Weibe 1987). This is also evident in the openness to discoveries of Neurology (e.g. Damasio 1994, 1999) and insights from Affective Neuroscience (e.g. Thagard 2007).
- (4) There is the considerable potential of Graph-Theoretic research in, for example, confirmation of re-structuring during insight (Durso, Rea & Dayton 1994), and the “Small-World” network model of Schilling (2005). There is also potential in deconstructing insight following up the work of Sandkühler and Bhattacharya (2008) on the Electroencephelogram (EEG) correlates of insightful problem-solving. Another field is that of Magnetic resonance imaging (MRI) scans following the research of Bowden and Beeman (1998) and Beeman and Bowden (2000),

particularly focusing on the supposed unconscious processing during the incubation phase. There may also be potential, despite the present difficulties, of computer modelling in specific problem-solving structures like neural networks and evolutionary algorithms as suggested by Pols (2002).

### *The Weaknesses*

(1) Exciting as the potential of natural science is, it is essential to recognise its limitations for understanding the distinctively human experience of insight as emphasised by existential-phenomenological psychology's insistence on developing a human science. The potential problem is research that not only results in knowing more and more about less and less, but that is fundamentally reductionistic, objectified and dualistic in a way that hardly does justice to the quality, meaning and significance of the human experience of insight. The subtlety of this potential problem is that the more accurately and comprehensively a given mechanism is developed, the more the insightful person is lost in the abstractions, unless very great care is taken.

(2) There is a danger in laboratory studies, for the focus to be too exclusively on internal cognitive processes divorced from life-world experiences. So, for example, carefully controlled 'hints' or an 'opportunistic-assimilation' hypothesis (Seifert et al. 1995) are hardly an adequate substitute for normal human experiences, communication and relationships. There is also a world of difference between being *given* trivial insight problems and targets in the laboratory, compared with *generating* insights in self-chosen problems with real motivation for solution in life-world situations, in which people can draw on their own areas of expertise.

(3) The difference between re-structuring and re-combination needs to be recognised. While these processes are regarded as distinct in visual perception (e.g. Werstijnen 1997), many insight researchers seem to group them together (e.g. Ansberg 2000, Dominowski & Dallob 1995), which leads to difficulties about the definition of insight.

(4) There is considerable confusion with respect to what constitutes an insight problem. The question is whether problems are 'all-or-nothing' insight problems requiring re-structuring for solution, or whether there is "a slope of insight-like quality with classical insight problems at the top, classical incremental problems at the bottom, and less definable problems like anagrams or matchstick problems somewhere in between" (Pols 2002, p. 100). This refers to research by Weisberg (1992), Bowden and Beeman (1998) and Mori (1996); it raises the fundamental

question of where to draw the line between what is insight and what is not. The current *de facto* determiner of what constitutes an insight problem is not the problem itself but the effect it produces (Trottier 2001).

(5) In view of people's individual differences and abilities it seems unlikely that there is any such thing as a universal insight problem, since, for instance, while one person may have no idea how to solve the mutilated checkerboard problem (see Figure 9 in section 2.5.4.2), a mathematician may see it as a simple and routine topology exercise. For an approach so dependent upon puzzle-problems this is a very serious matter. In Trottier's words (2001, p. 11) "Without an exact definition of insight and insight problems, it will never be a rigorous sub-domain of cognitive science".

(6) In view of the influence of the "constraint" model of Isaak and Just (1995) and of "spreading activation" theory of Durso et al. (1994), Siegler (2000) and others, it would be important even if very difficult to test, to discover whether *all* kinds of insight problems raise implicit constraints. If people visualise geometrical problems rather than think about them in words, it would be an argument against the influential "constraint" model since, as Pols (2002) points out, it only deals with implicit verbal constraints.

(7) Finally, it is noticeable that frequently, having outlined a theory of insight, cognitive psychologists refer to a particular life-world experience of insight as an example and confirmation of that theory in action. In so doing, respect for experiential insight is being expressed in practice, even if it is not fully acknowledged in the formulation of cognitive theory.

Perhaps it is appropriate to review the approaches to insight that have been developed so far. The *first* was the holistic approach of gestalt psychology with five inter-related views of insight (2.3). The *second* was the existential approach of phenomenological psychology to insight with its emphasis on insight as disposition, impact, interpreting and feeling (2.4). The *third* was the puzzle-problem approach of cognitive psychology which has just been reviewed (2.5).

The next three approaches to be explored are the creative approach of genius, dreams, design and invention to insight (2.6), the representational approach of models of insight (2.7) and then the case-study approach of great minds experiencing insight (2.8).

## 2.6 The Creative Approach of Genius, Dreams, Design and Invention to Insight

Creativity is certainly among the most important and pervasive of all human activities and it is a very particular way in which human beings can display optimal functioning. Yet psychologists have seldom, if ever, viewed it as a central research topic (Sternberg & Lubart 1995). Guilford (1950), in his presidential address before the American Psychological Association, made an impassioned plea for making creativity a more focal point of psychological research, to which there has been a significant response.

It is widely acknowledged amongst scholars that “moments of real insight are properly included within the realm of creativity research, even if they are not creativity itself” (1989, p. 271). In addition, the process of reorganising information as part of creative thinking has been researched with special attention to processes involved in insight (Baughman & Mumford 1995, Mumford, Supinski, Threlfall & Baughman 1996, Smith & Dodds 1999, Sternberg & Davidson 1995). So, if the processes involved are similar even if the products differ, it is not improper, provided due care is taken, to explore parallels between creativity and insight.

### 2.6.1 An Overview of the Literature on Creativity

This overview of the literature on creativity draws substantially from the work of Simonton (2000) and Lubart (2000-2001). Simonton identifies four main aspects of creativity: the cognitive process of creativity, personal characteristics of creative people, the life span development of creative products and the social context of creativity. They will each be examined in turn.

(1) *The cognitive process*: the creative act has often been thought of as mysterious and mystical “more akin to divine inspiration than to mundane thought” (Simonton 2000, p. 152). Cognitive science identifies the importance in creativity of:

(a) insightful problem solving with the empirical demonstration of intuitive information processing as a regular manifestation of the cognitive unconscious (e.g. Bowers, Farvolden &

Mermigis 1995, Schooler & Melcher 1995). This will be illustrated later in this approach by the account of a recurring dream.

(b) The creative cognition approach (Finke, Ward & Smith 1992, Smith, Ward & Finke 1995, Ward, Smith & Vaid 1997) with evidence of the value of visual imagery and emphasising that creativity involved ordinary cognitive processes. This will be illustrated in this approach by the interpretation of a dream.

(c) Expertise acquisition which is regarded as essential. Even the creative genius does not produce ideas or skills de novo (Hayes 1989, Simonton 1991b). This will be illustrated later in this approach in terms of design and invention.

(d) An increased use of computers to test and attempt to reproduce creativity (Boden 1991, Martindale 1995, Simonton 1999b).

(2) *Personal characteristics*: the key characteristics are intelligence and personality. A critical development was the realisation that the simplistic uni-dimensional concept of intelligence had to be superseded. In its place Guilford (1967) developed his structure-of-intellect model, Sternberg (1985) formulated his triarchic theory of intelligence, and Gardner (1983) evolved his theory of multiple intelligences; each is associated with a specific manifestation of creativity, such as painting, music, poetry or science. Researchers have compiled a reasonably adequate description of the creative personality (e.g. Martindale 1989, Simonton 1999a). Creative persons are disposed to be independent, unconventional, even bohemian, and are likely to have wide interests, considerable openness to new experiences, flexibility or flow and boldness in risk taking. There is considerable evidence that creativity tends to be associated with a certain amount of psychopathology (e.g. Eysenck 1995, Jamison 1993, Ludwig 1995), yet often compensatory characteristics enable these creative people to channel their energies productively and adaptively (e.g. Csikszentmihalyi 1997, Ludwig 1995, Rothenberg 1990). This illustrates how supposed psychological weaknesses can sometimes be converted into a form of optimal functioning.

(3) *Lifespan development*: creativity is more than a cognitive and dispositional attribution in which individuals may vary. It is also an activity that develops and matures over the course of a life span. Simonton (1987) has documented a number of influences, such as family environments and circumstances, that seem to favour the emergence of creative personalities. The significance of genetic contribution to creativity has received considerable attention (Lykken 1998, Simonton 1999c, Waller, Bouchard, Lykken, Tellegen & Blacker 1993). Clearly exceptional creativity

does not always emerge from the most nurturing environment (e.g. Eisenstadt 1978, Goertzel, Goertzel & Goertzel 1978, Simonton 1984). On the contrary, creative potential seems to require both diversifying experiences that help to weaken the constraints of convention socialisation and challenging experiences that develop perseverance in the face of obstacles (Simonton 1994). There is considerable evidence of peak creativity in the second and third decade of people's lives, with creativity waning as a function of age (e.g. Lehman 1953, Lindauer 1993b), yet there is also evidence of numerous factors that help maintain creative output throughout the lifespan (Csikszentmihalyi 1997, Lindauer 1993a, Simonton 1989, 1991a, 1997a).

(4) *Social context*: the original research on creativity tended to adopt an excessively individualistic perspective. From the late 1970s there was increasing recognition of the social context of creativity (e.g. Amabile 1983, Harrington 1990), with particular emphasis on the interpersonal (Amabile 1996, Farr 1990, Roy, Gauvin & Limayem 1996), interdisciplinary (Csikszentmihalyi 1990, Dunbar 2005, Martindale 1990) and socio-cultural environments (Simonton 1976, 1984a & c). The latter includes political environments, warfare, internal oppression and foreign domination (Simonton 1994). These *zeitgeist* factors affect the general level of creativity activity at a given time and place, but cannot easily account for individual differences in creativity. So, for example, "the general milieu may largely explain why the Renaissance began in Italy but not why Michaelangelo towered over his Italian contemporaries" (Simonton 2000, p. 156).

## **2.6.2 A Darwinian Chance Configuration Theory of Creative Genius**

As noted in the introduction to the nine different approaches to insight (2.1) these are not watertight compartments; there is a flow and development between most of them, so the question arises at this point, under which approach is it most appropriate to consider Simonton's (1995) Darwinian chance configuration theory of creative genius? It could reasonably be included under models of insight – it is a Darwinian model; or under metaphors of insight – it is being used as a metaphor; or under the creative approach to insight – it is about creative genius. All have some claim; the latter gets it by a short head; so it is included here under this approach of creativity.

Simonton (1995) argues that the emergence of new ideas in the heads of creative geniuses follows a pattern remarkably close to the appearance of new varieties of life forms on this planet. He refers to Campbell's (1960, with adaptations in 1965, 1974, 1991) model of creative thought which he called the *blind variation and selective retention theory*, according to which ideas undergo haphazard re-combinations in the mind, and the resulting blind variations then pass through a selective filter. Only a subset of the ideational combinations are retained for further cognitive processing. As Simonton observes, "many others have expanded Campbell's basic model into more comprehensive theories of discovery and creativity (e.g. Eysenck 1993, Kantorovich 1993, Kantorovich & Ne'eman 1989, Martindale 1990, Shrader 1980, Stein & Lipton, 1989; see also Findlay & Lumsden 1988)" (Simonton 1995, p. 467).

Simonton's own contribution (1988b & 1988c) is the chance configuration theory of creative genius:

According to this system, creativity begins with the chance permutation of mental elements. The latter include ideas, concepts, recollections, emotions, sensations or any other basic component of mental functioning. Most of these permutations are too unstable to enjoy anything more than an extremely ephemeral existence in the fancy. Nonetheless, from time to time, a specific combination of elements coalesces to form a cohesive whole, or conceptual gestalt. This so-called chance configuration represents the insight that transfers to more deliberate and elaborate processing at later stages in the creative process. (Simonton 1995, p. 467)

Poincaré's introspections illustrate the Darwinian model of creativity so well that Campbell referred to his own theory as *Poincaréan* (Campbell 1991). For Poincaré, who has already been quoted in section 2.5.1 (3) as an example of the prepared mind perspective, "ideas arose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination. By the next morning I had established the existence of a class of Fuchsian functions" (Poincaré 1921, p. 387). He compared these colliding images to "the hooked atoms of Epicurus" that jiggle and bump "like the molecules of gas in the kinematic theory of gases" so "their mutual impacts may produce new combinations" (Poincaré 1921, p. 393). Simonton concludes: "This represents an explicit and vivid statement of how free variations yield chance configurations" (Simonton 1995, p. 469).

### 2.6.3 Unconscious Chance or Conscious Logic in Insight?

Sometimes, there is a tendency to see a phenomenon either as random or as not random, which is a misconception. “A continuum connects the utterly capricious with the altogether determined” (Simonton 1995, p. 472). This is illustrated by correlation coefficients in statistics. It is not possible to “draw a sharp line between solutions determined by a secure logic and insights happened upon by an erratic fancy ... we find a comparable continuity in the variation process that sustains biological evolution” (Simonton 1995, p. 473).

Against this it has to be recognised that Simon, the Noble laureate:

stands in the forefront of those cognitive psychologists who believe that insights arise by a process that is intrinsically logical (e.g. Simon 1973). So logical is the process that Simon believes that we can already programme computers to make scientific discoveries (e.g. Langley, Simon, Bradshaw & Zythow 1987)”. (Simonton 1995, p. 474)

For a contrary view see Penrose (1999, 2005). The jury is still out on this one.

Hadamard (1949, p. 28) maintained that “the intervention of chance occurs inside the unconscious: for most of these combinations – more exactly, all of those which are useless – remain unknown to us”. As Simonton (1995, p. 475) comments, “there we have it: the blind variations happen mostly in subterranean domains, and we usually witness only the chief results”. It is important to avoid two potential pitfalls in this explanation. First, it is not appropriate to expect too much of these unconscious processes, since once these intuitive insights emerge, the conscious mind often must do the real work, verifying the hunch, elaborating the details, or providing the logical justifications. Second, it is a mistake to maintain that the free-associative process is invariably inaccessible to awareness. On the one hand, Simonton (1995) cites Kekulé’s reverie in which the vivid imagery commanded conscious attention and led to his discovery of the benzene ring (quoted in Findlay 1948, p. 37). Another example of conscious awareness is Poincaré’s experience of “ideas arising in crowds” (as in section 2.6.3) which he could report because he had made the ‘mistake’ of drinking coffee shortly before going to bed; the resulting insomnia enabled him to be aware of his intuitive meditations. On the other hand, Simonton (1995) insists that the variational process may apparently operate below the threshold of direct awareness. This is also illustrated in Poincaré’s experience. He reports: “disgusted with my failure, I went to spend a few days at the seaside, and thought of something else. One

morning, walking on the bluff, the idea came to me, with ... [characteristic] brevity, suddenness and immediate certainty ... ” (Poincaré 1921, p. 388).

Clearly the line between conscious and unconscious is not hard and fast, and as in the case of chance, it is a matter of degrees. Simonton (1995, p. 477) explains it in these terms:

The core consciousness contains the central focus of attention, where our information-processing machinery is concentrated, but surrounding that core is a peripheral awareness of subliminal stimulate and partially retrieved memories. That periphery fades off into the ill-defined realm of the unconscious...Normally, each of us is not fully aware of what is going on at that farthest fringe. One may sense merely a vague feeling that something is going on in the back of one’s mind...Nevertheless, when the succession of subconscious images chances on a bona fide insight, core consciousness will suddenly change focus and spotlight the discovery ... Poincaré’s beach stroll exemplifies this event perfectly.

So, contrary to Simon’s explicit quest for an actual computer discovery programme that makes Nobel-prize quality insights (for contrary views to Simon see Czikszenmihalyi 1988, Penrose 1999,2005, Sternberg 1989, Tweney 1990), Max Planck (1949, p. 109) held that great scientists “must have a vivid intuitive imagination, for new ideas are not generated by deduction but by an artistically creative imagination”.

Simonton (1995, pp. 488-489) outlines four further varied implications of the Darwinian viewpoint of insight:

(1) The model helps us accommodate the full range of mental processes involved in creativity (Eysenck 1993, Kantorovich 1993, Simonton 1988c), including homospatial and Janusian thinking (Rothenberg 1979, 1986, 1987) and imageless thought (Roe 1952). In stark contrast cognitive psychology tends to stress only those processes that can be easily translated into computational models (Boden 1991).

(2) A mathematical model derived from this theory predicts how insights are distributed over the course of a career (Simonton 1984b,1989). The model accounts for both individual differences and interdisciplinary contrasts in career trajectories, including the location of the first, best, and last major influential insight (Simonton 1991a,1991b,1992a).

(3) This theory enables us to predict fluctuations in artistic styles. Martindale (1986,1990) has not only advanced such an extension but has tested its implications by applying computer content analyses to actual literary creations.

(4) The variation-selection model explains the circumstances that allow two or more individuals working independently to come up with identical insights (Simonton 1979, 1987b, cf. Lamb & Easton 1984, Merton 1961). In fact, a stochastic model based on the Darwinian premise can even handle the eventful case when both Darwin and Wallace independently arrived at the same evolutionary theory (Simonton 1987b).

It is a very impressive range of implications of the Darwinian perspective and bears testimony to the power of the Darwinian metaphor-of-mind in terms of insights.

#### **2.6.4 Insight and Creativity in Dreams**

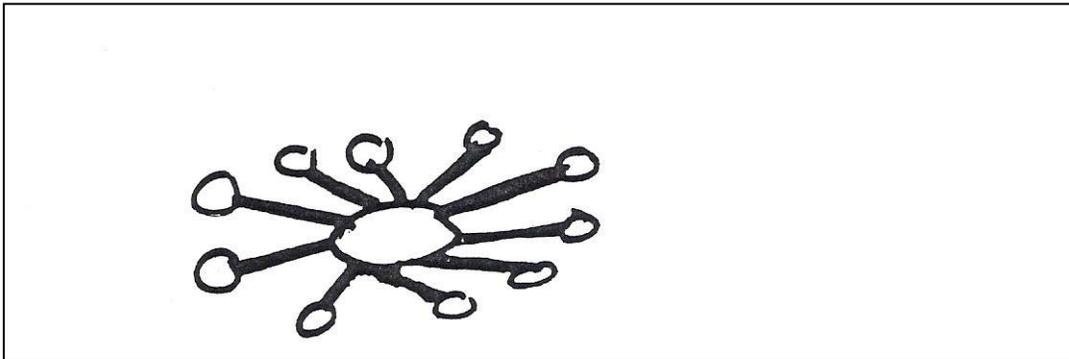
Much emphasis in research on creativity has been on breaking down the process into common elements (Perkins 1981) of examining it through an information processing lens (Hofstadter 1985a, 1985b, Sternberg 1986), in terms of persistent lifelong struggles (Gruber 1981), or in terms of psychometric approaches (Torrance 1988, Barron 1988) and computational models of scientific insight (Langley & Jones 1988). Yet, it is important to recognize that every now and then powerful insights of a more holistic and new reality do in fact occur.

Reference has already been made to the reverie or dreamlike state of Kekulé and Poincaré. The visual nature of dreams and the origin of the word insight, emphasising its parallels with vision, indicate that dreams may well be a very common and significant dimension of insight.

In February 1976 Feldman had an experience that seems to be a classic example of such an insight. He was not in the bath like Archimedes but in the shower; he did not run into the streets naked, but rushed almost naked to tell his insight to a colleague across the hall in the hotel. He writes “Based on my own experience, I am certain that moments of real insight are properly included within the realm of creativity research, even if they are not creativity itself” (Feldman 1989, p. 271).

So we shall examine Feldman’s experience of insight from the perspective of creativity within this particular approach. Feldman (1989, p. 272) recounts:

For at least three years before my morning shower in February, I had been having a recurring dream – not every night, but perhaps as often as once a week. The dream consisted simply of an amusement park ride in action. I was aware after several repetitions of the dream that this image was somehow related to my work, specifically to my efforts to understand development and creativity ... it was clear to me that this image was central and intimate and important, and I was embarrassed that I had no idea what it was. (See Figure 10 below.)



**Figure 10.** The amusement park ride dream image. (Feldman 1989, p. 273)

According to Feldman, from time to time the image would change in subtle ways, but the basic parts were always there: central power source, rotating and rising peripheral containers with places for riders in them. Initially he thought it was a neuro-physiological image – something about how the neurons in the brain fire or interconnect, which he found dispiriting for he was aware that if the image was indeed neuro-psychological he would be unlikely ever to make sense of it. However he was clear that the image was central to his work and was not about his emotional life. On a flight to a meeting, Gruber referred to a Darwin’s “branching tree” diagram, the only illustration in *The Origin of Species* (Gruber 1981), and asked Feldman if he was aware of any such images in his own work. Feldman recalls that despite

the irony in the fact that Gruber had spent much of his career trying to show the relative unimportance of moments of insight in major works of originality ... I felt comfortable enough to tell Gruber that I had been dreaming about the amusement park ride for better than two years ... For the first time I tried to draw a picture of what the image looked like ... It was the following morning that I went rushing into his hotel room across the hall

and tried to explain what I had just learned in the shower. I remember the flash of insight distinctly: What I actually said (out loud I believe) was, “The ride is not inside, it’s outside”. (Feldman 1989, pp. 274-275)

This was because he had assumed it was a neuro-physical metaphor. In the shower he realised it was not a micro model, but a macro model of the forces that contribute to developmental change, representing an overarching organising principle. He later came to label the image and what it represented as the processes of “co-incidence” (Feldman 1979, 1980, 1986a, 1986b, 1989). An image “capturing the multiplicity of dynamic forces that influence development and that do not at the same time compromise the integrity or importance of the individual’s own contribution to the process” (Feldman 1989, p. 276).

This is not the place to explicate the theory further, or examine its application in explaining the amazing phenomena that is called the “child prodigy” in his later research and writing which flowed from this image, nor is it the place to evaluate the significance of this insight in the broader body of research; this will be done in the evaluation at the end of this section. Yet Feldman himself is clear: “My insight in the shower transformed a dream image into a tool to work with ... it has remained an important part of my mental landscape ever since” (Feldman 1989, pp. 281-282). However it is appropriate to add that Feldman is also clear that “I have not had a dream that included a carnival ride of any description since my rush from the shower. Not once. I take this as evidence that ... what I was dreaming was well resolved in the concept of co-incidence that emerged into awareness so suddenly” (Feldman 1989, p. 277).

### **2.6.5 Insight and Creativity in Design**

Finke (1995 , p. 256) makes a distinction between convergent and divergent insight, reflecting: the classic distinction between divergent and convergent thinking (Guilford 1956, Mednick 1962): “in *convergent insight*, one discovers a creative structure or solution that makes sense of apparently disconnected facts”. It is particularly valuable in classic insight problems where conventional approaches will not work (Gardner 1988, Metcalfe & Wiebe 1987, Weisberg & Alba 1981b). So “convergent insight is particularly useful in solving mysteries where one must collect relevant clues and then discover a coherent explanation for them” (Finke 1995, p. 256).

“*Divergent insight* in contrast, occurs when one begins with a structure and seeks to find novel uses for it or novel implications of it ... artists often generate interesting structures without specific goals in mind, simply to explore the possibilities those structures afford” (Finke 1995, p. 256). This is a function-follows-form approach rather than a form-follows-function approach. “Divergent insight can be likened to the explorer who follows a path to see what might be discovered rather than to confirm what is already known or suspected. In divergent insight, one tries to find the meaning in the structure rather than to structure that which is meaningful” (Finke 1995, p. 256).

Finke explores divergent insight within the framework of creative cognition by using the technique of generating and interpreting pre-inventive forms. His findings imply that:

divergent insight is enhanced when one is forced to explore a structure in unusual or unexpected ways. In addition the subjects were more likely to make a creative discovery when they were using pre-inventive forms that they themselves had generated, rather than forms that other subjects had provided. (Finke 1995, p. 260)

Finke concludes:

in convergent insight, one seeks a particular structure that solves a problem or mystery, whereas in divergent insight, one begins with an interesting structure and seeks novel interpretations of it in order to explore new, creative possibilities. Both are important in creativity; one is diagnostic and explanatory, the other playful and exploratory. (Finke 1995, p. 267)

Given the important complementary role of both convergent and divergent insights in creativity and problem-solving, the issue of constraints arises.

### **2.6.6 Constraints on Thinking in Insight and Invention**

Isaak and Just (1995) construe insight and invention as problem-solving phenomena. They argued two main proposals. The first is that “insight problems often contain information that leads subjects incorrectly to accept additional operator constraints not mandated by the problem” (Isaak & Just 1995, p. 283). The second is that invention comprises three phases: “(1) design space limitation, in which the inventor narrows the space of potential novel solutions to a

problem; (2) design generation, in which the inventor develops candidate novel solutions; and (3) design analysis, in which the inventor evaluates and revises candidate solutions” (Isaak & Just 1995, p. 285). The argument is that design generation taps generative processes similar to those involved in insight, and that invention and insight may be distinguished primarily by the presence of an analytical component in invention.

In discussing generative versus analytical phases in problem-solving they drew on the distinction made by Osborn (1963), the originator of brain storming, between *idea finding* requiring the rapid production of many different ideas, with little immediate regard for their plausibility, and *idea evaluation* of the merits and disadvantages of each idea. In a similar way Wallach (1967) suggested that creativity in both scientific and artistic domains involves two phases: the *generation* of conceptual possibilities and the *analysis* of their implications. The same distinction was made by Anderson (1990) and in Finke, Ward and Smith’s (1992) model. Isaak and Just (1995) also draw attention to Klahr and Dunbar (1988) and Dunbar and Klahr (1989) who argue that scientists explore in two alternate spaces in pursuit of discovery: the generation of *hypothesis*, and the testing of them in *experiment*. Clearly successful creativity depends on increasing both the playful and unrestrained facility with which solutions are *generated* (Viesner 1967, Wallach 1967) and the acuity and perspicacity with which they are *analysed* (Isaak & Just 1995).

However, Jansson and Smith (1991) found that engineers who designed products after viewing examples of other products with similar functions, included in their own designs unnecessary features of the sample products, even when specifically warned not to borrow such features.

Isaak and Just (1995, p. 305) give an example:

The bird-airplane analogy contains the constraints that the airplane functions of lift and thrust be realized in wing forms, just as they are in birds ... in the flapping of wings ...

The form-function constraints contained within initial invention analogies generally must be unpacked, released, and reformulated as invention proceeds ... Airplane designs in which wings provided both lift and thrust proved unworkable.

A recent study of fixation effects of pictorial examples in a design problem-solving task by Chrysikau and Weisberg (2005) showed:

(1) That although participants consulted the problem instructions they tended to follow the pictorial examples even when they included inappropriate elements. This conclusion broadens the potential negative implications of fixation. It is also a noteworthy finding that negative transfer is a general phenomenon that affects individuals irrespective of expertise.

(2) That fixation can be diminished or even eliminated with appropriate “defixation instructions”. Since in so many fields, such as physics, chemistry and engineering, use is made of pictorial examples, it would be of considerable importance to understand more about the origins of fixation, in order to develop instructional techniques to eliminate its negative effects.

So Isaak and Just (1995, pp. 310-311) conclude that:

many writers (e.g. Hademard 1945) often use *insight* to mean *invention* ... we clarified the similarities and differences between insight and invention by analysing each in terms of constraint operations ... Whereas insight depends on releasing constraints, invention requires reiterative cycles of constraint release and imposition ... Constraint release in both insight and invention can be facilitated by combinatorial and analogical play ... what might distinguish the best problem-solvers and inventors is their conscious and strategic use of operations on constraints.

Important as this conscious and strategic use of operations is, it is not the whole picture; sometimes there is an undeniable element of chance.

### **2.6.7 Serendipity, Profusion and Profligacy in Creativity and Invention**

Simonton points out that what appears logically irrelevant may actually provide the missing piece of the puzzle. “When Gutenberg was trying to devise a method to mass produce the Bible, the solution came from an unexpected quarter – the presses that he saw whip in action during the Rhineland wine harvest!” (Simonton 1995, p. 473). Anecdotal evidence reveals that often a researcher is investigating one question in the laboratory when he or she unexpectedly stumbles on another, often utterly unrelated finding. Classic examples of this, in the history of science and technology, are cited by Simonton (1995): they include animal electricity, laughing-gas anaesthesia, electromagnetism, ozone, photography, synthetic coal-tar dyes, dynamite, the record player, vaccination, saccharin, x-rays, radioactivity, classical conditioning, penicillin, sulphur

drugs, Teflon, and Velcro (see also Austin 1978, Mach 1896, Shapiro 1986). Examples like these again reveal the truth of Pasteur's famous remark "[c]hance favours the prepared mind".

If chance sometimes sneaks into the process of creativity, insight and invention, it is also necessary to acknowledge that waste is also part of the process. "Creativity is a very wasteful business. It spews forth insight after insight, only a tiny fraction of which survive further scrutiny" (Simonton 1995, p. 485). Faraday lamented:

The world little knows how many thoughts and theories which have passed through the mind of a scientific investigator have been crushed in silence and secrecy by his own severe criticism and adverse examinations; that in the most successful instances not a tenth of the suggestions, the hopes, the wishes, the preliminary conclusions have been realised. (quoted in Beveridge 1957, p. 79)

Barron (1963, p. 139) expressed it well: "The biography of the inventive genius commonly records a lifetime of original thinking, though only a few ideas survive and are remembered to fame". As Simonton (1995) observes, Edison obtained 1093 patents, many for totally worthless inventions. The futile development of one failed idea alone cost Edison all the money he had earned from the electric light bulb. Picasso created nearly 20,000 pieces over the course of his career, many of which were hardly masterpieces; in fact Picasso himself admitted that many of his pieces were "fakes". Even W.H. Auden warned that because great poets are so prolific, "[t]he chances are that, in the course of his lifetime, the major poet will write more bad poems than the minor" (quoted in Bennet 1980, p. 15).

In similar vein Simonton (1995, pp. 487-488) comments:

The biographies of almost every creative genius mention personal favourites that fail to impress others, as well as highly popular pieces for which the creators had little regard. Beethoven's Fifth Symphony was not his favourite product in that form, and among his piano compositions he had a rather low opinion of both his *Moonlight* Sonata and the Bagatelle *Für Elise*. Einstein regretted his pioneering efforts in developing quantum theory, while proclaiming a unified field theory that his colleagues believed was sadly ill conceived.

Simonton's conclusion is that from a Darwinian perspective these sort of examples of profusion and profligacy should not surprise us.

## 2.6.8 An Evaluation of the Contribution of the Creative Approach

The evaluation of the creative approach to insight processes, particularly in relation to dreams, design and invention and what it adds to the understanding of insight will be assessed in terms of strengths and weaknesses.

### *The Strengths*

(1) The creative approach demonstrates more clearly than most other approaches that creativity which involves is a possibility for practically everyone; so the strength is accessibility. There is no specific process-related difference between creative and non-creative work; it is a continuum rather than a dichotomy. In Lubart's metaphor "the engine is the same but some people use better grade fuel than others" (Lubart 2000-2001, p. 301).

(2) Amabile (1996) identifies three components which influence the 'grade of fuel', resulting in the quality of creative productions of an individual and an organisation. They apply equally to insight. The *first* is the quality of motivation for the task, including intrinsic interest in, and commitment to, the task. The *second* is domain-relevant skills such as knowledge, experience and technical skills. The *third* is creativity-relevant processes which would include the ability to flow freely, break tight mental sets, think laterally and heuristically for idea-generation. So another strength of this approach is applicability.

(3) The strength of Simonton's thought lies both in its detail and its comprehensiveness. The detail includes the conceptual gestalt of insight as the specific combination of elements coalescing to form a cohesive whole, the continuum from the utterly capricious to the altogether determined, and the way core consciousness will suddenly change focus and spotlight a *bona fide* insight. The comprehensiveness, relates to the breadth of the heuristic power of this model of creative insight in terms of the range of implications flowing from this Darwinian perspective.

(4) Feldman's dreams leading to insight into "co-incidence" were not only important to him and had the effect of helping to transform and reorganize his way of thinking about and understanding of developmental processes; it is also an important part of a broader body of scholarly work demonstrating that major developmental changes not only occur but also are central features of what it means to be human (Bickhard 1980, Campbell & Bickhard 1986, Feldman & Goldsmith 1986, Gardner 1988, Pea & Kurland 1984).

(5) Feldman's dreams showed him that his:

mind was quite spontaneously *making new things*. That these new things may have been produced in part out of already existing things does not diminish the fact ... that it had the ability to produce a virtual torrent of small transformations and to produce them in coherent, organised ways. (Feldman 1989, p. 287)

In view of the Aristotelian tradition that everything must come from something else and that therefore there is fundamentally nothing new, which has seen its fullest expression in Western rationalism, this is a significant point. It is recognised that one part of the mind tries to keep things the same, which provides for a continuity of experience and stability in our sense of reality. The other part of the mind aims to continuously change and transform, which enables insight. It is possible that “conscious versus unconscious thought may have been an evolutionary adaptation for keeping these two functions – transformation and categorisation – from destroying each other. The interplay becomes productive and central in the process of making something both new and useful” (Feldman 1989, p. 289). The strength of this is best appreciated in comparison with Perkins (1981,1986,1990,1995) who sees insight as relatively mundane and undifferentiated from more typical processing and thinking. Feldman’s sustained semiconscious and perhaps even unconscious processes applied to problems in parallel with, and eventually in concert with, conscious processes, can hardly be described as “mundane” or “typical processing”. (6) Finke’s (1995) distinction between *convergent* and *divergent insight* in creativity is valuable in itself in revealing the breadth and variety of insights. It is also useful for differentiating between a playful *creative* generative space and perspicacious diagnosis and *analysis*, which is also consistent with the distinction between the generation of scientific *hypothesis* and the testing of it in *experiment*.

(7) Isaak and Just’s (1995) conclusion that *insight* depends on releasing constraints, whereas *invention* requires conscious reiterative and strategic cycles of constraint release and imposition is reasonably well known, yet in practice it is often overlooked, resulting in problems. So its strength is primarily as a reminder to close the gap between knowledge and behaviour.

### *The Weaknesses*

(1) In his preface to *The Nature of Creativity*, Sternberg (1988, p. vii) begins with the revealing sentence “Research in creativity has taken on the role of a prodigal stepbrother to research on intelligence”. He explains, “step-brother” because although it is in the same family, it has never quite seemed to measure up; “prodigal” because of his tendency to go beyond accepted bounds,

and even at times to be grandiose. This has to be regarded as a major weakness which has not been adequately addressed since he wrote. To complicate matters, a number of scholars following Guilford (1950) have tried to incorporate creativity under the rubric of intelligence. Others, like Getzels and Csikszentmihalyi (1976), have argued that creativity is psychologically distinct from intelligence.

(2) Insight is generally thought to be a significant and integral aspect of creativity. But what is hotly debated is how insight is defined and the specific role that it plays in the creative processes. In the concluding summary of *The Nature of Creativity* (Ed. Sternberg 1988b) the range of views:

spans the entire spectrum from those who imply that creativity is little more than building on an initial insight (Feldman; Taylor) to those who deny that moments of insight have any importance whatsoever for creative processes (Gruber & Davis; Simonton; Weisberg). The majority view, however, falls in between, with flashes of insight discussed as small but necessary components of creativity (Gardner; Langley & Jones; Sternberg; Torrance).

(Tardif and Sternberg 1988, p. 430)

(3) Feldman acknowledges, of course, that he is “using introspective evidence – that most treacherous source of data. But on the other hand, these are the sources of information about creative processes that I know best, or at least first hand” (Feldman 1989, p. 271). The designation of personal experiential evidence as “most treacherous”, is of course from the perspective of an objectivist natural scientific view, as opposed to a human and developmental scientific view (Pea & Kurland 1984), which with relevant safeguards would regard vital experiential evidence as a strength.

(4) The limitation of Isaak and Just’s (1995) model of constraints has already been noted; namely, that it applies to implicit, verbal and algebraic constraints, not to visual, geometrical or imaginative ways of thinking.

(5) Finally, there is very little clarity or consensus about what happens in the incubation phase of creativity. It may involve (a) automatic spreading of activation in memory, (b) passive forgetting of problem details or entrenched ideas that do not work, (c) broad attention and use of serendipitous cues from the environment, or (d) associative thinking through a random or directed combination process (Lubart 2000).

## 2.7 The Representational Approach of Models of Insight

Models in this context, more precise than metaphors (in 2.9), are nevertheless a simplified version of the complexity of insight in order to analyse and solve problems or to make predictions. Five different models of insight will be examined: firstly, intrapsychic and interpersonal models of insight (2.7.1); secondly, evolutionary ecological and interactionist models of insight (2.7.2); thirdly, an interpsychic model of insight (2.7.3); fourthly, the difference between insight in presented problem solving and discovered problem finding will be defined (2.7.4) before finally examining an evolving systems model of insight (2.7.5). This will be followed by a brief look at the strengths and weaknesses of these models.

### 2.7.1 Intrapsychic and Interpersonal Models of Insight

As Csikszentmihalyi and Sawyer (1995) observe, a number of studies of scientific creativity (Gruber & Davis 1988, Simonton 1988a) and artistic creativity (Getzels & Csikszentmihalyi 1976, Martindale 1990) have focused on mental processes, or models of the creative process from the perspective of cognitive psychology. Against this dominant trend, a few researchers have attempted to understand the social and cultural influences and environments in which creativity is manifested (Campbell 1960, Csikszentmihalyi 1988, 1990a, Harrington 1990, John-Steiner 1992, Woodman & Schoenfeldt 1989). As John-Steiner (1992) points out, these two approaches, the first *intrapsychic* and the second *interpersonal*, have not yet been successfully integrated.

Because the moment of insight is so fascinating and seductive as a peak experience in creative individuals, it is very tempting to study it in isolation. But as Csikszentmihalyi and Sawyer (1995, p. 331) recognise:

When we look at the complete ‘life-span’ of a creative insight in our subjects’ experience, the moment of insight appears as but one short flash in a complex time-consuming, fundamentally social process. It is true that the individuals we interviewed generally report their insights as occurring in solitary moments: during a walk, while taking a shower, or lying bed just after waking. However, these reports usually are embedded within a more

complex narrative ... the overall sense of these complete narratives stresses the salience of social, interactional factors.

Years of hard work frequently precede insight. Creative and insightful individuals rarely work in a vacuum, isolated from the social systems that constitute their domain of activity. This time is usually fundamentally social, deeply rooted in interaction with colleagues and entails a growing understanding of the culturally constituted domain. As Csikszentmihalyi and Sawyer (1995, pp. 331-332) observe of their research subjects, “[m]ost of these eminent people paraphrased the saying ‘creativity is 99 percent perspiration and 1 percent inspiration’ ... The social interaction within which the creative insight is nestled is coincident with this ‘99 percent perspiration’” (Csikszentmihalyi & Sawyer 1995, pp. 331-332).

Now the question arises: are mental processes and social and cultural influences sufficient to gain understanding of insight and creativity? What about evolutionary and environmental perspectives?

### **2.7.2 Evolutionary, Ecological and Inter-actionist Models of Insight**

Campbell (1960) used the evolutionary paradigm to explain the growth of knowledge in general, of which creativity and insight are special cases. Campbell’s ‘evolutionary epistemology’ may be summarised as:

changes in ‘ways of knowing’ start with (1) a blind variation stage, during which a large number of random and novel responses are generated, followed by (2) a selection stage, in which the best-adapted variations are chosen from all the options, and finally (3) a retention stage, during which the selected variants are added to the pool of responses for transmission to the next generation. (Csikszentmihalyi and Sawyer (1995, p. 333)

Perkins (1988) and Martindale (1990) based their three stage models of invention and artistic insight respectively, on Campbell’s evolutionary model. Simonton (1988a) also developed a theory of scientific creativity based on Campbell’s framework, in which the “variation stage” involved the chance permutations of mental elements. He defined these mental elements as “the fundamental units that can be manipulated in some manner” by the creative process (Simonton 1988b). Some of these chance permutations will be more stable than others, and so these

configurations will emerge into consciousness, resulting in an experience of insight. At this stage, conscious work is required to transform the chance configuration into a symbolic form of the insight, so that it can be communicated, as in a journal article, painting, or musical form.

Harrington (1990) argued for an ecological approach to creativity and compared the influence of the biological ecosystem on the organism to the influence of social environments on the creative individual. Extending this model, Harrington discussed the importance of “organism-environment fit” in the creative process and how creative individuals can be active shapers of their environments.

The interactionalist model of creativity, developed by Woodman and Schoenfeldt (1989), who explored the combination and interrelation of psychological and environmental factors in human behaviour, particularly highlighted the importance of contextual influences, social influences, cognitive style, personality traits and antecedent conditions.

Csikszentmihalyi (1988,1990a), developing a systems view of insight,

separated these influences into the *field*, the group of gatekeepers who are entitled to select a novel idea or product for inclusion in the domain, and the *domain* consisting of the symbolic system of rules and procedures that define permissible behaviour within its boundaries ... The creative process involves the generation of a novel product by the individual, the evaluation of the product by the field, and the retention of selected products by addition to the domain. Thus the creative process involves a recurring circle from person to field to domain and back to the person, paralleling the evolutionary pattern of variation (person), selection (field), and retention (domain). (Csikszentmihalyi & Sawyer 1995, pp. 335-336)

These models of insight are of considerable importance because of the danger of isolating an individual’s cognitive processes. This danger is of particular relevance in what has been called “The Great Minds Approach” to insight. So before investigating that approach, an inter-psyche model and an evolving systems model of insight will be explored.

### 2.7.3 An Interpsychic Model of Insight

The systems view of insight developed by Csikszentmihalyi (1988,1990a) proposed that creativity was not being operationalised adequately at the psychological level alone because many of the cognitive psychological processes “inadequately represent this social, interactional aspect of the process of creative insight” (Csikszentmihalyi & Sawyer 1995, p. 332). In order to link the intrapsychic and interpsychic levels, they postulate a conscious-subconscious interaction that parallels the interpsychic-intrapsychic dimension. They seek to address the question “if conscious attention is serial and limited, whereas the subconscious capacity of the mind is parallel and multiple, how can the individual coordinate them?” (Csikszentmihalyi & Sawyer 1995, p. 339).

Csikszentmihalyi and Sawyer (1995) have an ongoing interview study involving structured video interviews of approximately two hours duration, with a sample of something like one hundred people who have made significant creative contributions to the sciences, arts, humanities, business or politics. Generally they are over sixty years old and still actively involved in their fields.

They noticed that these stage-like narrative descriptions tended to group into two distinct types not formerly discussed in the literature. These types varied in terms of the length of time involved in the overall creative process:

Some individuals described working for several years on a problem before the flash of insight, whereas others spoke of working for a few hours in the morning and having the insight in the afternoon. Most creative individuals experienced both types of creative process ... This variation in time scale applies not only to the preparation phase but also to the phase of evaluation and elaboration: in some cases, the evaluation occurred in a matter of minutes, whereas in others it took months or even longer to elaborate or confirm the insight. (Csikszentmihalyi & Sawyer 1995, p. 336)

Although the creative process probably involves a continuous spectrum of time spans, they examine the two extremes, adopting the distinction developed by Getzels (1964) between

*presented problem solving* and *discovered problem finding*. The first, the short time-frame process, tends to occur when a problem is known in the domain and all that needs to be found is a solution to it. The second, the long time-frame process, tends to occur when the nature of the problem to be solved is less clear and may not be formulated until the moment of insight. Great creative breakthroughs, paradigmatic shifts, belong to this category. They claim to have identified two variants of the four stages, as indicated in the next section.

#### **2.7.4 Insight in Presented Problem Solving and Discovered Problem Finding**

The four stages of insight will be illustrated in terms of the distinction between insight in presented problem solving and discovered problem solving.

(1) *Preparation*. Darwin is an example of someone who prepared himself for his insights into evolution through a childhood interest in collecting insects, the reading of geology, and the painstaking observations he made during the voyage of the *Beagle*. As Csikszentmihalyi and Sawyer (1995, p. 340) note, “Curiosity, interest, access to information, and some impulse that sets questioning in motion are all part of the preparatory phase of the creative process”. Clearly in terms of Kuhn’s (1962) distinction between *presented problems* and *discovered problems*, Darwin was wrestling with the latter, involving a general sense of intellectual and existential unease outside a paradigmatic context.

(2) *Incubation*. The social influences of the domain and the field appear to act as the primary controlling mechanisms of the creative individual’s subconscious, who internalises the domain’s built-in assumptions and rules, much as Kuhn’s (1962) paradigm constrains the thinking of individuals in a scientific field. Csikszentmihalyi and Sawyer (1995, p. 341) make a helpful distinction:

One major difference between presented and discovered processes at the incubation stage appears to be the diversity of inputs that the latter includes ... Practically every respondent we interviewed seems to have combined information from more than one domain prior to the occurrence of a major insight ... because of the longer time frame, the model suggests that problem finding creativity will make greater use of the subconscious and will combine information derived from more different sources.

They distinguish three levels of processing:

(i) *Conscious Attention (Serial Processing)*. Genetically programmed predilections, learned motives, socialised interests and cultural values all enter into determining which stimuli or issues will be invested with attention. Only a few pieces of information can be attended to at any one time; so this level is characterised by serial, directed-attention processing.

(ii) *Semiconscious Filters*. These filters determine what information is viewed as relevant and passed to the subconscious. Personality traits, such as curiosity, interest, intrinsic motivation and flexibility are also important at this level.

(iii) *Subconscious Processing Entities, or the Society of Mind*. The distributed, parallel nature of this network of subconscious processing entities allows multiple chunks of information to be viewed simultaneously. Connections between ideas can be tested, perhaps in a subconscious generate-and-test fashion.

The three levels *function synchronously*. Whereas ideas can be addressed only one at a time in consciousness, once they have passed to the subconscious, ideas that enter awareness in a serial fashion can be considered in parallel. By contrast, in *presented problem* solving, according to Csikszentmihalyi and Sawyer (1995, p. 347) “a surprising number of individuals we interviewed, told us they carefully structure their work day to include ... a period of idle time ... without this solitary, quiet time, they would never have had their most important ideas”. This time included activities such as gardening, repetitive activities with the hands, snoozing, a bike ride, taking a shower, shaving, taking exercise, walking and driving.

(3) *Insight*. The two types of creative insight, *presented* and *discovered*, correspond to Kuhn’s (1962) distinction between normal science and revolutionary science. The former consists of working within an accepted tradition, incrementally advancing the field with experiments and discoveries. The latter, in contrast, involves a discontinuous leap to a new perspective or paradigm. The small insights, or hunches, that seem to be a frequent part of everyday life are more like problem solving, whereas the revolutionary insights that change the course of history will be problem finding insights. Within their three-level model, “insight is a type of information retrieval, the reverse of the information storage flow in the preparation stage. This reverse process begins in the subconscious” (Csikszentmihalyi & Sawyer 1995, p. 343). Their theory suggests a more active subconscious process than Simon’s (1977). They argued that as

similarities between ideas or configurations in different domains are recognised in the subconscious – such as that between geological and biological cases in the case of Darwin – a new configuration combining the two emerges and filters into consciousness. Csikszentmihalyi and Sawyer assert:

Although in the popular conception, insight results from a specific stimulus (such as the apple that fell on Newton’s head), we have not found descriptions of this sort in our interviews. The insights are always described as welling up from the subconscious, but there is never a mention of a specific external stimulus. (1995, p. 343)

While acknowledging that this may hold in the vast majority of cases, it is clearly contradicted by Feynman’s experience (2.5.3), although it may be compatible with Simonton’s (1995, p. 483) *external subliminal associative priming hypothesis*. Csikszentmihalyi and Sawyer (1995, p. 344) concede in conclusion: “Perhaps there is, nonetheless, a sort of internal stimulus, a subconscious event that causes a final, critical shift in the subconscious network, like the final shout that releases the avalanche”. Nevertheless that final shout is, according to their theory, an internal voice not an external one.

By contrast, in *presented problem* solving according to Csikszentmihalyi and Sawyer (1995, p. 348), “almost without exception our respondents told us that the daily problem solving insights came to them during this idle time ... several described how insights can be sparked by interaction ... the importance of dialogue in generating ideas”.

(4) *Evaluation and Elaboration*. In *discovered problem* solving Csikszentmihalyi and Sawyer conclude:

In our four-stage model of creative insight, the evaluation and elaboration stage represents a reverse filtering of the insight from the subconscious network into consciousness. Like the preparation stage, this process also is intricately bound up with the internalised social model of the field and domain ... In reality most creative ideas, especially of a discovered kind, are the result of multiple cycles of preparation, incubation, insight, and elaboration, with many feedback loops. (1995, p. 344)

A good example of the complexity of this process appears in Gruber’s (1981) work on Darwin which illustrates how “the development of the evolutionary paradigm was the result of a lifetime

spent elaborating the implications of an insight that was itself a result of a protracted series of partial understandings” (Csikszentmihalyi & Sawyer 1995, p. 344).

By contrast, in *presented problem* solving, often there is a very short time scale; the problem was clear and now it is clearly solved by the insight and there is no need for feedback loops or extensive evaluation or elaboration.

### **2.7.5 An Evolving Systems Model of Insight**

Gruber’s developing work, over more than fifteen years, shows how “insights, whether they are small steps or great leaps, are part of a coherent life. They express the thinker’s organisation of affect and purpose as well as his or her organisation of knowledge” (1995, p. 399). So, for example, in considering the famous story of Archimedes, he makes the important point that we do not know exactly what happened in the bath, but we do know that Archimedes wrote an important 47 page, highly deductive mathematical treatise on floating bodies. He argues that it is more plausible to think of the problem of the composition and density of Hiero’s crown as embedded in this enterprise, rather than an isolated event (see also the work of Drake 1978, Galileo 1586/1961, and Heath 1897, relating to Archimedes). So the task is not only to understand the inner structure of each episode of insight, but to relate this structure to the creative life of which it is a part.

Gruber (1989) has called this model, *The Evolving Systems Approach*. In this view of creative work there are three major subsystems: (1) an organisation of *knowledge*, (2) an organisation of *purpose*, and (3) an organisation of *affect*. This approach enables case studies of creative people at work, in a way that illuminates the developing system as a whole.

Therefore, in the study of insight, we are especially concerned with the way in which each insight is a move in the development of the creator and of his or her work. By the same token, we are particularly on the lookout for the many moments of insight occurring in a creative life, rather than supposing that the heart of the matter lies in one great creative leap. Thus, insights express and are part of the functioning of the creative system rather than its rupture. (Gruber 1995, p. 400)

So in examining some insights in the history of science, Gruber (1995) makes the point that accounts of many of the most celebrated cases of insight were written long after the event, which led to several kinds of error. He specifies three: telescoping, rationalisation and decontextualisation. (i) *Telescoping*; refers to the loss of detail due to limitations of memory, intermediate steps drop out and beginning and ends remain. As a result, many incremental and intermediate steps may be replaced by one or two points suggesting a leap. (ii) *Rationalisation*; describes changes in intuition and in affective feeling that disappear from memory and are replaced by post hoc rational and empirical accounts. This of course does not apply to interviews or the use of contemporaneous notes as in Darwin's notebooks used by Gruber (1981a) or Holmes's (1989) work with the notebooks of Lavoisier and Krebs. (iii) *Decontextualization*; occurs when the surrounding conditions, circumstances or experiences of the insight are overlooked. The coherent episode, in which a moment or moments of insight occurs, can be thought of as a figural event seen or remembered against a background of several overlapping contexts. These contexts would include "hints" in picture puzzle experiments, and the enterprise in which the problem in question is a part, as in Archimedes' prolonged work on floating bodies. It may also include the wider intellectual currents that contribute to defining the problem, the forms of acceptable solutions, and the theories that will shape the way in which the insight is recorded and interpreted.

### **2.7.6 An Evaluation of the Contribution of the Approach of Models of Insight**

This evaluation consists firstly of the strengths of these models of insight and then secondly the weaknesses.

#### *The Strengths*

(1) Instead of a narrow focus on mental processes from the perspective of cognitive psychology, there is a broader understanding of social and cultural influences as well as environmental factors in which creativity and insight are manifested. Sudden insights, when the individual concerned is alone, are usually embedded in a more complex interactional process and are often preceded by years of hard work which is not usually in complete isolation.

- (2) The element of chance, both in discoveries (as in Section 2.6.5) and in permutations and variations emerging into consciousness, resulting in serendipitous insight seem undeniable, even if infrequent and mysterious.
- (3) The ongoing structured video interview study (2.7.3) of Csikszentmihalyi and Sawyer should be of great value and when complete will be a considerable bank of experience to examine for years to come.
- (4) The distinction between the two types of creative insight, *presented* and *discovered*, corresponding to Kuhn's (1962) distinction between normal science and revolutionary science, is a valuable one, but not absolute. For example, Darwin's development of the evolutionary paradigm was, as Csikszentmihalyi and Sawyer (1995, p. 344) put it, "the result of a lifetime spent elaborating the implications of an insight that was itself a result of a protracted series of partial understandings".
- (5) Gruber demonstrates that "insights, whether they are small steps or great leaps, are part of a coherent life", expressing the thinking insightful person's "organisation of affect and purpose as well as his or her organisation of knowledge" (Gruber 1995, p. 399). This emphasis on the coherence of life is entirely compatible with the existential-phenomenological approach and is particularly important in the light of a general tendency to isolate startling creative phenomena like insight, as well as Cognitive psychology's tendency to separate processes. Gruber's (1995, p. 400) conclusion is also an important corrective: "Thus, insights express and are part of the functioning of the creative system rather than its rupture". This is particularly important in the context of mechanistic and reductionist views of the universe which regard creative actions or insights as interventionist. All this prepares the way for an effective treatment of the next approach to insight which will be considered, namely the "Great Minds Approach".

### *The Weaknesses*

- (1) Despite recent developments it has to be acknowledged that the intrapsychic and interpersonal approaches have not yet been fully successfully integrated.
- (2) It is questionable whether the postulate of Csikszentmihalyi and Sawyer (1995), of a conscious-subconscious interaction that parallels the interpsychic-intrapsychic dimension, is adequate to do justice to the rich individual experiences of those involved in their structured

video interviews. Certainly their presentation of the material so far appears to be rather generalised and constrained by natural scientific perspectives.

(3) It seems strange that Csikszentmihalyi and Sawyer (1995, p. 343) can categorically state that “the insights are always described as welling up from the subconscious, there is never a mention of a specific external stimulus”, since Feynman’s experience, and that of others in which collegial discussions trigger insight, is well known. Perhaps there is some misunderstanding at this point and greater clarification is required.

## **2.8 The Case–Study Approach of Great Minds Experiencing Insight**

In the previous sections several models of insight, notably the intrapsychic, interactional and evolving systems models, prepared the way for exploring the Great Minds Approach to insight, without the danger of artificially isolating the individual’s cognitive processes.

Several examples of Great Minds experiencing insight have already been mentioned in this Literature Review, namely Feynman (2.5.1, 2.5.3), Kekulé (2.5.3) and Crick and Watson (2.5.4.2). But to do justice to this approach it is necessary to examine the processes of a “Great Mind” experiencing insight in context and in much greater detail. To be true to the context and the greater detail, the heading for this section should really read “The Case-Study Approach of Great Minds and Dedicated Lives of People Experiencing Insight”, because most of the people in this category have dedicated their whole lives to their chosen discipline.

As examples of “Great Minds” the insightful processes and experiences of two remarkable, but very different people will be examined: first, Poincaré and then Darwin. First, Gruber’s evolving systems model (described in 2.7.5) is applied in approaching Poincaré’s experience of insight (2.8.1), then Poincaré’s own account of his experiences of insight is examined before an evaluation of the importance of purpose in his life of insight. Then, Darwin’s thought, purpose and affect in his Malthusian moment of insight is examined, drawing on his letters to Lyell (2.8.2).

### 2.8.1 The Approach to Poincaré's Experience of Insight

Gruber notes that:

There is a certain irony in the way students of creativity have used Poincaré's famous moment of insight, taking it out of context and ignoring that mathematician's excellent description of the relationship between microgenetic and macrogenetic processes making up a complex event, extended in time. (1995, pp. 412-413)

The relationship between microgenetic and macrogenetic processes has been carefully researched by Wallace (1991). What she says about the genesis and microgenesis of sudden insight in literature also applies to Poincaré's (1952) description of his eureka experience in his essay "Mathematical Discovery". Wallace (1991, pp. 41-42) emphasised the point that *insight* refers to "a *family* of phenomena occurring in creative work. The family includes problem finding ... problem resolution, synthesis, discovering similarities, analogies, increase in certainty, recognising error, the *mot juste*, and so on". Although these may all occur as relatively sudden transformations of the cognitive field, whether in the field of mathematics or literature, she points out that each has an internal microgenesis and each occurs within the context of a longer developmental sequence (see also Wallace 1989).

Poincaré's (1952) essay, "Mathematical Discovery" is in Gruber's estimation:

one of the best known, most widely cited, and often reprinted accounts of what seems to be a eureka experience. Arieti (1976), for example, gives a succinct but full enough account of the event as a whole, but then boils it down to the received, truncated version: 'at the moment he put his foot on the step, the idea came to him ... this was the creative moment' (Arieti 1976, p. 268) ... this episode provides an excellent example of the transformation in memory known as *telescoping*: a complex event, extended in time, is compressed into an instantaneous point. This entails a double loss – the disappearance of the inner temporal structure or microgenesis of the momentary event, and the neglect of its multiple relations with other processes. (1995, p. 413)

It is helpful to first note the time and context of mathematical thought of Poincaré's period, and then turn to the seven steps in Poincaré's own account of his insight.

Poincaré’s first treatise on Fuchsian functions was anticipated in its point of view and style of thought in his first published work in 1878 when he was 24 years old. It was not until thirty years later that he gave his lecture on “Mathematical Discovery” that was included in *Science and Method* (1908). Until 1900, Poincaré had been the supreme mathematical analyst. As Bell (1937) points out at the Second International Congress of Mathematics in 1900, Poincaré proclaimed that “we believe that we no longer appeal to intuition in our reasoning ... we may say today that absolute rigour has been attained”, but in the ensuing years he moved rapidly towards intuition. It was a period of considerable writing on the psychology of mathematical thought, generally stressing the role of dreamwork and intuition.

According to Gruber, *Science and Method* is one long argument in praise of both psychological and mathematical intuition: “[W]hat the true scientist alone can see is the link that unites several facts which have a deep but hidden analogy. The anecdote of Newton’s apple is probably not true, but it is symbolic, so we will treat it as if it were true” (Poincaré 1952, pp. 27-28). He concludes that “logic therefore remains barren, unless it is fertilised by intuition” (Poincaré 1952, p. 193). Gruber summarises Poincaré’s proposed relationship between step-wise calculation and penetrating intuition, as a model of mathematical discovery in terms of:

“Arduous work → Sound conclusion → Naming the result  
 → Compression of thought → Further economies  
 → Intuitive grasp”. (Gruber 1995, p. 414)

This is a summary of the seven steps in Poincaré’s own account of his experience of insight, as outlined by Gruber (1995, pp. 415-420):

(1) *Caen*. For a fortnight, Poincaré has been working on a mathematical problem, to prove the *non*-existence of the class of functions he later called *fuchsian*. A sleepless night, occasioned by too much coffee and too much obsession, leads to a first important idea. By morning, he had established the contrary of his original intention. Nothing is said of any sudden illumination. But he does speak of ideas “surging” and “jostling one another” and he does distinguish this phase from the next morning when he devoted a few hours to “verify” the result. He seems to be describing a two-phase sequence of intuitive combinatorial work of discovery followed by some more rigorous process of proof. Although he speaks of the surging ideas sometimes forming a “stable combination”, this does not seem to mean the sudden emergence of a *solution*.

(2) *Caen*. At a time unspecified, but soon after the first episode, Poincaré formed a new intention, to represent the functions he had just found in a new way. Quite consciously and deliberately, he adopted the strategy of reasoning backward: “I asked myself what must be the properties of these series, if they existed, and I succeeded without difficulty in forming the series that I have called *Theta-fuchsian*” (Poincaré 1952, p. 53).

(3) *Coutances*. Poincaré attended a geological conference 90 km from Caen, where he was living. Here, with no forewarning, he had his celebrated foot-on-the-step-of-the-bus illumination, a perception or recognition of the identity of two mathematical transformations. He waited until his return to Caen to verify this “finding”.

(4) *Caen and seaside*. Poincaré had begun a work on a seemingly unrelated mathematical project. Making no progress, he went away for a few days. “One day, as I was walking on the cliff, the idea came to me, again with the same characteristics of conciseness, suddenness, and immediate certainty ...” (Poincaré 1952, p. 54). Again he had perceived an identity, previously unnoticed, between two mathematical transformations.

(5) *Caen*. Returning to his home and teaching post, Poincaré deduced the consequences of his new finding and set about systemising and generalising it. He succeeded easily, with one notable exception. Struggling with this obstacle did not help him “better understand the difficulty, which was already something. All this work was perfectly conscious” (Poincaré 1952, p. 54).

(6) *Mont-Valerien and Caen*. Poincaré was in military service near Paris, 200 km from Caen.

[M]y mind was preoccupied with very different matters. One day, as I was crossing the street, the solution of the difficulty which had brought me to a standstill came to me all at once. I did not try to fathom it immediately, and it was only after my service was finished that I returned to the question. I had all the elements and had only to assemble and arrange them. (Poincaré 1952, p. 54)

Clearly, the solution that came to him all at once was not a finished product but something that needed further fathoming and reorganising.

(7) *Caen*: Now having all the elements of a definitive treatise, Poincaré (1952, p. 55) composed it “at a single sitting and without any difficulty”.

Gruber concludes that of these seven episodes:

three include sudden illumination – on the bus, on the cliff, and in the street. Another is described as freighted with intuitive thought. The remaining three are characterised as

conscious and deliberate work. For Poincaré one of the hallmarks of his sudden illuminations is the suspension of intentional work on the problem, although this is not necessarily the case for other individuals. Thus, Poincaré gives a detailed first-order description, not of one great insight but of a continuously working, evolving system of thought that produces important insights from time to time ... for Poincaré, mathematics was a language in which he thought. (1995, pp. 416-417)

Giving energy and direction to that thought was a powerful sense of purpose.

Poincaré, as Gruber (1995, p. 418) points out, was very careful to emphasise the ways in which the creative process is regulated by the thinker's conscious and enduring purposes:

On the one hand, he compares the elementary ideas of a mathematician's thought processes to molecules in a gas whose collisions produce new combinations. On the other hand he says of these elements 'Now our will did not select them at random but in pursuit of a perfectly definite aim. Those it has liberated are not, therefore, chance atoms; they are those from which we may reasonably expect the desired solution' (Poincaré 1952, p. 61). Finally, whatever is produced by these unconscious processes must be developed in a second period of conscious work. 'It never happens that unconscious work supplies *ready-made* the results of a lengthy calculation in which we have only to apply fixed rules ... all that we can hope from these inspirations ... is to obtain points of departure for such calculations ... [the latter] demand discipline, attention, will, and consequently consciousness'. (Poincaré 1952, p. 62-63)

A further question arises about the relation between purpose and unconscious thinking in Poincaré's experience. For he emphasises the idea that he often worked without a clear sense of purpose, or as Miller puts it, Poincaré had his initial great insight about Fuchsian functions as a sudden "illumination with no pre-determined path" (Miller 1992, p. 399).

As Gruber (1995, p. 419) argues: "Having a sense of purpose is in no way incompatible with working with no pre-determined path. It seems that Poincaré worked from first principles and had a sense of what the end product might be". At least two years before his famous insight on the step of the bus Poincaré "suspected that there ought to be certain generalisations of elliptical functions of a single complex variable ... but he did not know exactly what they were or whether

these solutions ever existed” (Miller 1992, p. 398). So it is clear that, in Gruber’s (1995, p. 419) words, “creative work can be purposeful and protracted, playful and intuitive, deeply knowing and yet partially unconscious, just as Poincaré described himself”.

The paradox for the creative individual is somehow to direct this undirectable subconscious process so that useful insights result. Csikszentmihalyi and Sawyer (1995, p. 339) state: “In fact, many of our respondents claim that they have developed the ability to do just that: to control without controlling, indirectly to direct the subconscious mind”.

There are at least three levels in Poincaré’s description: mathematics itself, his own thoughts about mathematics, and his reflections on the psychology of thinking. At this third level Poincaré is examining what Gruber (1995, p. 420) calls “a single project within a single enterprise. Such episodes are very far from constituting the whole creative process ... to display any sense and order, the intentional episodes must be embedded in a still larger framework of purpose, regulated by an overarching point of view”.

This “larger framework of purpose” is particularly clearly revealed in Darwin’s research, which will now be explored.

### **2.8.2 Thought, Purpose and Affect in Darwin’s Malthusian Moment of Insight**

Gruber (1995) treats insight as both an experience and a problem-solving act or series of acts with cognitive, motivational, and affective characteristics. In contemporary theory, emotion and cognition are frequently treated as separate but interacting systems (e.g. Izard 1984), by contrast in the evolving systems approach, Gruber

conceives of the thinking, feeling person as exhibiting a stream of thought, a stream of purpose, and a stream of affect. They are in continual interaction, yet each has its own varying contents, tempos, and rhythms ... the ‘same’ insight, arising on a platform of despair, is not really the same if instead it emerges out of a stream of pleasurable activity. This way of looking at insight as temporarily extended and situated has among its advantages the fact that it expands the data base on which we can draw to understand the subject’s affect. (1995, pp. 421-422)

A number of researchers have documented the events leading up to Darwin's great moment in which he saw how Malthus's theory of population growth could be used in a theory of evolution through natural selection. Gruber (1981a) has stressed how Darwin's notebooks reveal numerous partial insights, on several occasions almost obtaining the clarity of the Malthusian moment.

In order to trace the rising level of affect leading up to Darwin's Malthusian moment, evidence is drawn from Gruber's notes on Darwin's letters to the geologist Lyell, who was Darwin's chief scientific mentor for at least ten years, and the man who had earlier "literally danced with delight when Darwin told him about his theory of the formation of coral reefs, a theory supplanting Lyell's own version" (Gruber 1995, p. 423).

**August 9<sup>th</sup>, 1838.** Darwin wrote "I am living very quietly & therefore pleasantly & am crawling on slowly but steadily with my work" (Darwin 1986, p. 98).

**September 14<sup>th</sup>, 1838.** Darwin wants Lyell to return to London from Scotland, lest "the Scotch mists will put out some volcanic speculations". Darwin says that he is tempted to neglect geology "by the delightful number of new views, which have been coming in, thickly and steadily, on the classification & affinities & instincts of animals – bearing on the questions of species – notebook after notebook has been filled with facts, which begin to group themselves *clearly* under sub-laws" (Darwin 1986, p. 108). Here a change of pace moves towards a crescendo when, visiting his brother, he read Malthus's *Essay on Population* (1826) "for amusement".

**September 28<sup>th</sup>, 1838.** The day his insight came to a climax. His notes do not say anything *explicit* about his feelings, but both the format of the notes and the contents convey an air of excitement. Words are underlined, doubly underlined, and triply underlined. He inserted between the lines and in the margins commentaries on his commentary. There is a liberal use of metaphor and emphatic language. For example, his closing sentence: "One may say there is a force like a hundred thousand wedges trying [to] force every kind of adapted structure into the gaps in the economy of nature, or rather forming gaps, by thrusting out weaker ones" (Gruber 1995, p. 422). He may even have written this later the same day after returning home from his brother. He is quoted as recollecting one of the more momentous insights in the history of science, as "I can remember the very spot on the road, whilst in my carriage, when to my *joy* the solution occurred to me" (F. Darwin 1892/1958, p. 43, italics added).

### 2.8.3 An Evaluation of the Contribution of the Great Minds Approach

As in previous evaluations the strengths and then the weaknesses will be outlined.

#### *The Strengths*

(1) After considering hypotheses, theories, insight puzzle problems and models of insight there is something refreshing and stimulating about their application in considering verified life-world experiences of Great Minds wrestling with very substantial issues and experiencing significant insights. These are insights which have not only changed our world, but which have become part of the warp and woof of our own pattern of thinking and daily understanding. It is evidence of the existential value of this detailed first order description and approach.

(2) The value of Gruber's evolving systems approach integrating the organisation of knowledge, purpose and affect in the many moments of insight in a creative life, is seen in revealing the inner temporal structure or microgenesis of the momentary event, the connection of its multiple relations with other processes and therefore in a more coherent, holistic, contextual and developmental understanding of the experience of insight.

(3) Some light is shed on the cooperation between conscious and subconscious processes which result in useful insights. Csikszentmihalyi and Sawyer (1995, p. 339) state that "many of our respondents claim that they have developed the ability ... indirectly to direct the subconscious mind". As Gruber (1995, p. 417) says of Poincaré, for example, "mathematics was a language in which he thought". In reflecting on the lives of those who qualify for the Great Minds approach it becomes clear that there is a concentration of energy, a focused sense of purpose and a dedication not just of thought and feeling but often of life itself to the chosen issues, which is an expression of, a co-operation with, and an indirect direction of subconscious processes leading to insights.

#### *The Weaknesses*

(1) There are dangers inherent in any historical approach, such as telescoping, rationalisation and de-contextualisation, which have been noted and hopefully avoided in this thesis, but they remain potential weaknesses of this approach.

(2) It is important to recognize that there is a natural scientific suspicion, if not scepticism, about using introspective evidence – that most treacherous source of data – as Feldman puts it. Yet from a human scientific perspective it is vital ‘first order’ evidence, essential for understanding the experience of insight. It is submitted that the existential-phenomenological methodology is a very powerful process in respecting, describing, clarifying, understanding and refining the essential structure of the human experience of insight.

So it is by the Great Minds approach, considering substantial experiences of insight over real issues, that many of the other theories, models and approaches are finally tested and either find their fulfilment or are found wanting. In these terms, the holistic approach of gestalt psychology has proved foundational to the whole enterprise of researching insight (2.3); the existential approach of phenomenological psychology is essential in describing and understanding the experience of insight (2.4); the puzzle-problem approach of cognitive psychology is marginal in terms of life-world experience of insight (2.5); the creative approach of dreams, designs and inventions is useful in broadening the concept and application of insight (2.6); and the representational approach of models of insight continues to be valuable in contextualising and clarifying evolving systems of insight (2.7)

Three more approaches to insight remain to be examined. First, the Metaphors-of-Mind approach (2.9), then the Inter-Subjective approach of psychotherapy (2.10) and finally the Body-Mind-Spirit continuum approach of Spirituality to insight (2.11).

## **2.9 The Metaphors-Of-Mind Approach to Insight**

Three different metaphors-of-mind for insight will be examined:

- (1) Insight in minds and genes (2.9.1) in which insight is compared with the phenomena of biological evolution on a timescale of one minute to ten million years.
- (2) An investment perspective on creative insight (2.9.2) in which the attitude required for insight is compared to a willingness to buy low and sell high.
- (3) Finally, the vision metaphor for insight (2.9.3) emphasised by the word *insight* itself, which includes the significance of the quality of vision (2.9.4), and also involves the problem *space*

metaphor for insight (2.9.5). The issue of verbalisation and insight (2.9.6) is touched on before examining the significance of metaphor in the current research of insight (2.9.7) and concluding with an evaluation of the contribution of the metaphors-of-mind approach (2.9.8).

### 2.9.1 Insight in Minds and Genes

The exciting thing about the metaphor of evolution for insight is that in both evolution and insight a new form or structure occurs spontaneously. Perkins (1995) seeks to illuminate human insight by an analogue; by comparing it with phenomena of biological evolution on a time scale of one minute to ten million years. He enumerates the principal propositions of his arguments as follows (Perkins 1995, pp. 496-497):

- (1) Human insight presents some typical characteristics, including a long search, a precipitating, and a rapid culmination.
- (2) These characteristics can be generalised into the concept of *generative breakthrough events*, episodes of sudden innovation that might appear in any creative system, including evolution.
- (3) Evolution does offer insight-like episodes – that is, episodes with the characteristics of generative breakthrough events. The evolution of birds is one example; the creatures of the Burgess Shale near the dawn of multi-cellular life provide another.
- (4) The work of any creative system can be viewed as a process of search through a space of possibilities or a “possibility space”.
- (5) The searches of creative systems occur in possibility spaces with vast, relatively clueless regions, in the midst of which occur small pockets rich with clues, in which rapid progress can be made. Possibility spaces with this structure are called *Klondike spaces*.
- (6) Typical earmarks of insights (more generally, generative breakthrough events) such as suddenness are consequences of the Klondike topography. The basic phenomenon of insightlike episodes has little to do with intelligence or cognition.
- (7) Besides analysing insight, it is worth analysing insightfulness. The insightfulness of a creative system is its adaptation to the demands of effective search in a Klondike space. More insightful systems make more discoveries.
- (8) Human cognition not only generates insights but does so in an insightful way: that is, human processes of search often are well adapted to the topographies of Klondike spaces.

(9) In contrast, evolution, as classically conceived by Darwin, lacks this insightfulness. It is a brute-force process.

(10) However, modern conceptions of evolution suggest that evolution may be smarter than Darwin imagined. On a vastly greater time scale than human beings, genes in their passage and perturbations from generation to generation may function in an insightful way.

Perkins' (1995) argument is not always easy to follow, but we may draw three main conclusions:

(1) In order to give the mind its due, instead of focussing on insights we should rather focus on *insightfulness*, since “[a]ctual moments of human insight are the tips of a much larger iceberg of insightfulness” (Perkins 1995, p. 527). The searches human beings conduct are much better tuned to cope with the hazards of Klondike spaces than is the blind search process of Darwinian natural selection. In addition, we can learn to plan better, look for generativity, and adopt strategies of brainstorming (Perkins 1981, 1990, 1992).

(2) With the exception of incubation, which he rejects in *The Mind's Best Work* (Perkins 1981), Perkins' view of *Insight in Minds and Genes* (1995) is consistent with a number of other accounts in the literature, and simply analyses the phenomena of insight at a greater level of abstraction. So other accounts have the benefit of more detailed mechanisms but, he claims, encompass less well the general phenomena of insightfulness.

(3) Natural selection, with its long time scale and parallel processing, can achieve amazing biological designs through what Darwin conceived of as a relatively dumb process; yet recent research indicates that it may be much more intelligent than as originally thought. Wesson cites the rapid response insect species make to insecticides, sometimes within a single harvest season (Wesson 1991, pp. 236-237); the way bacteria adapt to feed on substances they normally cannot use at all (Wesson 1991, p. 234); and the way learning drives evolution (Wesson 1991, p. 241). These examples suggest that evolution may be insightful after all; it is simply not enough to speak of random variation and survival of the fittest, even if that is the core of the process. So, Perkins sums up his argument with:

The process of evolution seems to have as much claim to thinking as many programmes in artificial intelligence research (cf. Boden 1991). If so, the case of evolution would provide the *Guinness Book of Records* with the slowest ‘thinking’ process known ... But, of course ... this is the mere wink of a evolutionary eye. (1995, p. 530)

Acknowledging the significance of that wink, it is appropriate to move on to a completely different metaphor-of-mind for insight.

### 2.9.2 An Investment Metaphor for Insight

Sternberg and Lubart argue that creative insight requires a specific attitude in addition to cognitive abilities:

The creatively insightful person seeks the paths that others would avoid or even fear; he or she is willing to take risks and stray from the conventional. Drawing on concepts from the world of financial investments, we call this attitude for insight a willingness to buy low and sell high...previously we have found the investment metaphor to be useful in examining creativity in general. (1995, pp. 535-536)

*Buying low*, in this context means actively pursuing ideas that are unknown or out of favour but that have growth potential. *Selling high* involves moving on to new projects when an idea or project becomes valued and yields a significant return. People tend to buy high, pursuing ideas that are obvious or common for fear of the risks involved. Someone who buys low and sells high needs to be something of a maverick, ready to take chances and possibly fail (Dreman 1977, 1982, Malkiel 1985).

Kahneman and Tversky (1982), in Sternberg and Lubart (1995), found that most people are risk-averse when choosing between potential gains, but are risk-seeking when choosing between potential losses. Creative insights usually involve a potential gain, which means that people will tend to avoid the risks of buying low preferring to work with ideas that are already fairly well developed and accepted (Dreman 1977, Kahneman & Tversky 1982, MacCrimmon & Wehrung 1985); beating new paths is not for the faint hearted. An interesting study by Clifford (1988) shows that failure tolerance declines as children progress through school, perhaps owing to systemic rewards for good grades and a corresponding fear of failure.

If a field, speciality or problem seems to be under-represented at a particular time, one has a 'buy signal'. Expanding on the notion of *human capital*, Rubenson and Runco (1992) explain why younger people may be greater risk takers and hence more prone to major creative insights and, ultimately, discoveries and inventions (Lubart & Sternberg 1995/1998). Assuming old creators will possess more knowledge in their fields, they will be able to produce minor contributions at

less cost than younger colleagues. So Sternberg and Lubart (1995, p. 548) argue: “With too little knowledge, major insights will not occur because there are not enough raw materials. Conversely, with too much knowledge, major insights will not occur because they would devalue one’s current knowledge base”.

Market demands cannot be ignored. According to Simonton (1984c), political turmoil creates more demand for creative insights because of a greater need to find imaginative solutions to serious problems. This was certainly the case in South Africa over the negotiations for a just and peaceful transition in the 1990s. On the other hand, market demands cannot be the sole motivator. The impetus toward insightful problem solving ultimately has to come from within, not from external factors. Sternberg and Lubart quote Gary Trudeau, creator of the controversial and influential *Doonesbury* political comic strip, on his receipt of an honorary degree at Yale in 1991:

The impertinent question is the glory and engine of human inquiry. Copernicus asked it and shook the foundations of Renaissance Europe. Darwin asked it, and redefined humankind’s very sense of self. Thomas Jefferson asked it and was so invigorated by it that he declared it an inalienable right ... Whether revered or reviled in their lifetimes, history’s movers framed their questions in ways that were entirely disrespectful of conventional wisdom. (1995, p. 550)

In stark contrast to such questions and insight, Janis (1972) described a phenomenon he referred to as *groupthink*; a mindless conformity and collective misjudgement - an experience not entirely unknown to any of us.

Sternberg and Lubart (1995) argue that in a fundamental sense, evaluation of both financial and creative worth is parallel, because in both cases it is based largely on social consensus. “Previous accounts of people’s conception of creativity suggest novelty or statistical rarity, high quality, and appropriateness to problem constraints as the main criteria for judging creative performance” (Sternberg & Lubart 1995, p. 550. See also Amabile 1982,1983,1996, Jackson & Messick 1965, MacKinnon 1962, Sternberg 1985, 1988b). Sternberg & Lubart (1995, p. 550) argue that the same dimensions are used for determining whether a problem solution is insightful, and that “it is essentially an insight or series of insights that forms the basis of a creative product”.

Successful people find themselves more and more in demand as mentors, public speakers and committee members. As their reputation increases so demands on them increase, and the creatively insightful person can find herself or himself with almost no time or energy left for creative endeavours: with the result that bankruptcy of insights beckons. So as Sternberg & Lubart (1995, p. 554) express it: “what diminishes is not any insightful ability but rather the attitude and spirit of buying low and selling high”.

Sternberg and Lubart (1995, p. 555) add the reminder: “In using metaphors ... therefore it is important to recognise points of dissimilarity as well similarity; in fact examining where the metaphor is imprecise often yields more understanding of the concept”. So they clarify the limits of their metaphor by stating: “We want to show that there are major conceptual points of comparison between financial and creative investments; we are not equating creativity and money...Our theory makes only structural, not content, parallels” (Sternberg & Lubart 1995, p. 556). Clearly, it is often necessary for creatively insightful people to invest themselves, their time and energy, in their projects in order to add value to the initial idea before receiving a significant return. It is significant that Sternberg in particular, much of whose work has in the past emphasised the crucial importance of cognitive ability for insight (Sternberg 1985,1986, Sternberg & Davidson 1989), concludes: “exclusive reliance on cognitive models may rule out one of the most important factors for creative insight, which is not an *ability* so much as an *attitude* towards life” (Sternberg & Lubart 1995, pp. 556-557 italics added).

Finally, consideration must be given to the most commonly used metaphor of all, for insight; namely sight.

### **2.9.3 The Vision Metaphor for Insight**

The word *insight* itself emphasises its parallels with vision. When a person says “I see” it may indicate that she understands; yet when she says “I see!” the tone of voice may indicate that she has made a discovery or even experienced an insight. Insights are often described in terms of “seeing the light”, a “light bulb experience”, a “sudden flash”, or a “moment of illumination”. The analogy of perception guided the early gestalt theorists in characterising the processes of insight and, as Schooler et al. (1995, p. 564) point out that “[t]he Gestaltists’ perceptual characterisation of insight remains considerably influential to this day”. They cite Ellen (1982),

who suggests insight is akin to gestalt figure-ground reversals, and Gruber (1995) who hypothesises that a process comparable to perceptual gap filling may play an important role in insight. Other approaches have also emphasized the parallels between insight and vision. So, for example, Ohlsson (1984) speaks of insight as occurring in “the horizon of mental lookahead”, Ippolito and Tweney (1995, p. 444) specifically speak of insight as a special form of perception which they call “inception” and which “stands between the perceptual and the symbolic ... characterisations of insight”. Simonton (1995, p. 477) refers to consciousness as able to “suddenly change focus, and spotlight the discovery”.

Schooler et al. (1995) use, throughout their discussion, the analogy relating insight to recognising out-of-focus pictures or pattern of dots. (See Figure 11. Face in the snow.)

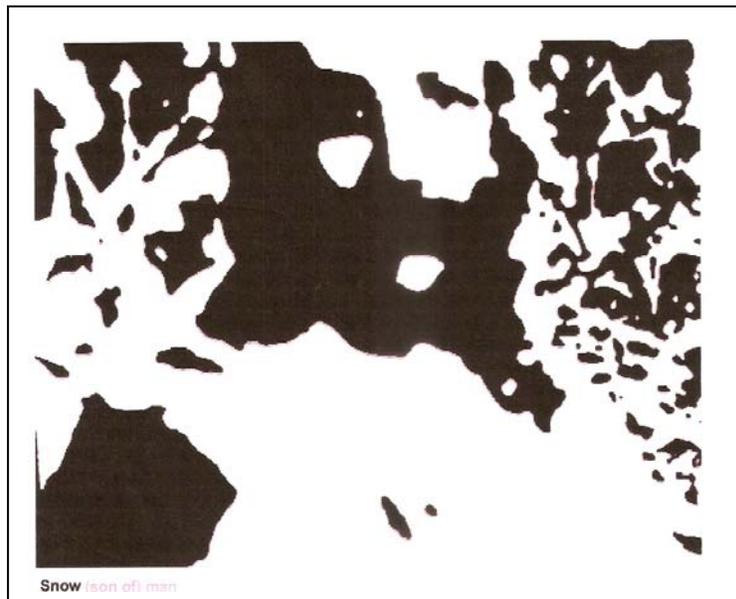


Figure 11.. The face in the snow. ([easyweb.easynet.co.uk/~philipdnoble/snow.html](http://easyweb.easynet.co.uk/~philipdnoble/snow.html))

Like insights, recognition of out-of-focus pictures can be hampered by a mental set (e.g. Brunner & Potter 1964) and facilitated by a simple cue, typically resulting in a sudden shift, from no sense of what is depicted, to clarity about what is depicted. Given these parallels, Schooler et al. tested their hypothesis that insight and recognition of out-of-focus pictures draw on some shared cognitive processes (Schooler et al. 1995) They concluded that of all the cognitive measures they employed, recognising out-of-focus pictures was the single best predictor of insight performance.

The mutual sources of suddenness in perception and insight which are identified by Schooler et al. (1995) have two essential qualities. The first is that there is “no intermediate process detectable in conscious experience” (Gruber 1995, p. 401). This is supported by other researchers’ characterisations (e.g. Gick & Lockhart 1995, Metcalfe 1986a, Metcalfe & Davidson 1995, Simon 1986), and “it seems likely that pattern recognition processes may be involved in each” (Schooler et al. 1995, p. 578). The second is coherence and certainty. “In the case of the out-of-focus picture, suddenly all the disparate shadings and features congeal to produce a single coherent image. Similarly with insight, when the solution is seen, all the parts suddenly seem to fit together” (Schooler et al. 1995, p. 579). They identified this as the gestalt, and suggest that this “coherence simply be equated with the basic constructs of pattern recognition” (Schooler et al. 1995, p. 579). They also claim that “this view is supported by the work of Anderson and Schooler (1991), which suggests that memory is remarkably attuned to patterns of information in the environment, in a manner comparable to that which perception is sensitive to the invariances in the physical world” (Schooler et al. 1995, p. 579, see also Gibson 1979, Marr 1982).

#### **2.9.4 The Significance of the Quality of Vision**

Crucial to the vision metaphor for insight is the quality of seeing. Pattison (2007, p. ix), in his Gifford Lectures, makes a strong argument “to suggest a more intimate way of perceiving them [images and artefacts] through ‘haptic’ or touching sight”. The concept of haptic vision is Pattison’s way of critiquing the prevailing Cartesian myth of a detached, disembodied and unitary way of seeing. Unlike the scientific metaphor of the eye as a camera, haptic vision is not static or unitary. It moves around an object, caressing its surface and employing a gaze that dwells on texture and colour. It is sentient and notes small alterations in its own attitude. Haptic vision enlivens and it is valuable for transformative insight and understanding, as Hampton (2008) points out. How else is it possible to wake up to the potential for destruction in viewing the world through a car windscreen? How else can the manifold seductions of virtual reality be countered? How else can the effects of global warming be experienced in such a way that people find the collective will to avoid disaster? One has only to think of the overcrowding of data in so many PowerPoint presentations. “I see what you mean” was never more true and less digestible.

Haptic vision enlivens the experience of seeing, deepens understanding and so may contribute towards transformative insight.

It is also necessary to note the limits of this metaphor of sight for insight. “The feeling of insight may be similar to gaining sight, but it is not identical. The process of insight may mimic visual pattern recognition, but they remain distinct” (Schooler et al. 1995, p. 584).

### **2.9.5 The Problem Space Metaphor for Insight**

A closely related metaphor to vision, which is frequently used in discussions of insight, according to Schooler et al. (1995, p. 564), is the notion that “thought is equivalent to moving through physical space”. Schooler et al. quote Roediger (1980, p. 232): “In thinking of consciousness, or more broadly, of mind, we usually resort to a metaphor of an actual physical space, with memories and ideas as objects in that space”. So we use such phrases as “searching my mind”, “changing the direction of thought”, “approaching the problem from a different angle”, “thoughts in the back of my mind”, “it’s on the tip of my tongue” and “finding the answer”. In problem solving, this mental space metaphor has become merged with a computer metaphor (e.g. Newell & Simon 1972) in which the problem solver moves through a problem space from sub-goal to sub-goal in order to reach the final goal.

From the point of view of the searcher, the boundaries of the problem may be defined so as to preclude finding the solution, as Isaak and Just (1995) suggest. In terms of the insight problem, by Perkins’ (1995) account, the physical space metaphor is like gold mining, in which there is little idea of progress until suddenly a gold rich vein is hit.

Schooler et al. combine the vision and physical space metaphors problem solving by proposing a two-process model:

- (1) a pattern recognition process comparable to vision that surveys the possible directions in which to move (i.e. identifying the potentially applicable operators)
- (2) a reasoning process that decides between the potential directions (selects a set of operators) and moves forward (executes the operators). (1995, pp. 565-566)

With respect to insight, Schooler et al. (1995) claim this double characterisation is particularly useful because “one may have a fine vantage point yet still fail to see the goal. In such cases, the problem is one of recognition”. On the other hand, “one may be heading in the wrong direction and need to determine a way to move to a better location that affords a better view” (Schooler et al. 1995, p. 566).

With this analogy in mind Schooler et al. (1995) consider some of the impasses to insight and how impasses are overcome. In terms of the latter, they advocate two strategies: improving solving recognition and searching for a new problem representation.

Improving recognition may occur by:

- (1) focusing on appropriate clues and problem elements (e.g. Gick & Lockhart 1995, Isaak & Just 1995)
- (2) taking a break as Poincaré did (Anderson 1981, Simon 1966, Smith 1995)
- (3) being receptive to cues from the environment as Feynman was (Seifert et al. 1995)
- (4) changing the context either physically (Smith, Glenberg & Bjork 1978) or psychologically (Bower 1981, Malpass & Devine 1981)
- (5) allowing unconscious retrieval as for example, in Simonton (1995, p. 477), “when the succession of subconscious images chance upon a bona fide insight, core consciousness will suddenly change focus and spotlight the discovery”. (See also Bowers, Regehr, Balthazard & Parker 1990, Langley & Jones 1988, Ohlsson 1992, Yaniv & Meyer 1987).

Impasses could also be overcome through searching for a new problem representation by:

- (1) recognising that one is at an impasse, for example Einstein’s difficulty in freeing himself from the assumption of absolute time (Dunbar 1995, Gick & Lockhart 1995, Gruber 1995, Kaplan & Simon 1990).
- (2) persevering, as in Edison’s saying that “creativity is 99% perspiration and 1% inspiration” (Csikszentmihalyi & Sawyer 1995, p. 331)
- (3) being willing to take risks (Dunbar 1995, Sternberg & Lubart 1995)
- (4) recognising the importance of playfulness, for example in Einstein’s insistence on “combinatory play” (Finke 1995, Ippolito & Tweney 1995, p. 449, Simonton 1995)
- (5) developing a broad knowledge base across several domains to enable connections (Dunbar 1995, Simonton 1995)

(6) recognising analogies which virtually all researchers regard as representing one of the central sources of insight (Dunbar 1995, Lee 1991).

While recognising the intrinsic value of this metaphor for insight and the theoretical value of the strategies for overcoming impasses to insight, it is difficult not to question their practical value in actually facilitating insight. It is a little like advice on analysing how to construct a joke.

### **2.9.6 Verbalisation and Insight**

A number of studies have documented the disruption that can ensue when subjects are asked to verbalize some particular tasks. For example verbally describing a previously seen face can interfere with the subject's subsequent ability to recognise that face (Schooler & Engster-Schooler 1990). Their interpretation of this result, "termed *verbal overshadowing*, is that verbalization may emphasise verbalisable processes at the expense of non-verbalizable ones" (Schooler et al. 1995, p. 583). They also claim that this holds true of colour recognition (Schooler & Engster Schooler 1990), taste judgments (Wilson & Schooler 1991), aesthetic evaluations (Wilson, Lisle, Schooler, Hodges, Klaaren & Lafleur 1993), visual imagery (Brandimonte, Hitch & Bishop 1992, Brandimonte, Schooler & Gabbimo 1993), and implicit learning (Fallshore & Schooler 1993).

Given the link traced between insight and perception, Schooler and colleagues explored their hypothesis that insight might also be vulnerable to verbalisation. So they had subjects engage in verbalisation (thinking aloud) while solving insight and non-insight problems. They concluded that "compared to the silent control subjects, subjects who verbalized were substantially less likely to solve the insight problems but exhibited no decrement on the non-insight problems" (Schooler et al. 1995, p. 583).

The notion that verbalisation may interfere with insight takes on particularly troubling dimensions in the context of a thesis on insight. Just as explaining a joke can ruin its humour so discussing theories of insight may make it more difficult to be insightful.

### 2.9.7 The Significance of Metaphors-of-Mind in the Current Research of Insight

This section will briefly consider the problems in the current research of insight before reflecting on the nature of metaphor and examining the significance in the current and ongoing research of insight. In this context it is useful to distinguish between the event of insight, the explanation of insight and the experience of insight. In the review of the literature so far it has to be acknowledged that there are a bewildering variety of possible elements that have postulated as explanations or mechanisms at work in insight.

Since there is no generally agreed upon operational definition by which insight and insight problems can be defined and identified, Weisberg (1995, p. 182) proposed that, “a moratorium should be placed on theorising about the mechanisms underlying restructuring and insight”. In reviewing *The Current State of Insight Research* Trottier (2001, p. 11) concludes: “Without an exact definition of insight and insight problems, it will likely never be a rigorous sub-domain of cognitive science”. Sadly this is still the case.

A metaphor, by definition, is an implicit comparison which is not meant to be taken literally, but involves figures of speech or symbolism, in which one thing is used to represent another. The word ‘metaphor’ comes from the Greek *metaphora*, from *metapherein* ‘to transfer’, literally ‘to carry between’ (Encarta World English Dictionary 1999). So metaphors, less precise than models, may usefully serve as a basis for elucidating the elusive nature of insight. But metaphors are not only appropriate at the current stage of research into insight because of the lack of a concise agreed explanation for insight. It is also arguable that metaphors will continue to be appropriate because, as documented particularly by Dunbar (1995,1999,2000) and Gentner (2000), analogies, comparisons and metaphors are an important source of knowledge and conceptual change in insight. This is particularly true of insight in life-world situations, where people “frequently use deeper, more structural features” when using analogies, rather than “subjects in many psychology experiments who tend to focus on superficial features” (Dunbar 2000, p. 313).

It is illuminating, as an example, to consider the metaphor of an explosion as suggested by Schooler et al. (1995), in which it is useful to distinguish between the event, the explanation and the experience. Many different and distinct processes can lead to an explosion, so there may be

many different explanations for an explosion. But these different processes all lead to a sudden and violent scattering of material that results in a transition event to a state very different from that preceding the explosion. “Similarly, although many different processes may lead to an insight, these can all be united by the insight event that results in the transition of the solver to a solution state very different from the non-solution state that preceded the insight” (Schooler et al. 1995, p. 562). This is consistent with Mayer’s (1995, p. 3) definition of insight which was identified in Section 2.2 as a particularly useful definition, as a transitional event in which “a problem solver suddenly moves from a state of not knowing how to solve a problem to a state of knowing how to solve it”. “Then it becomes more sensible to consider insight as a single construct” (Schooler et al. 1995, p. 561). It is also true that the experience of an explosion, such as the Twin Towers of 9/11, may be significantly different for different people, but it is of no less importance on that account. In fact it may make it all the more interesting and provide a fuller account of the event. Yet it is arguable that the research literature on insight hardly reflects the significance and importance of this personal *experience*. This issue will be taken up in Chapter 3 on the methodology most appropriate to include the experience of insight for this investigation.

## 2.9.8 An Evaluation of the Contribution of the Metaphors-of-Mind Approach

### *The Strengths*

- (1) Without a generally agreed or exact definition of insight and of insight problems in the current state of research, metaphors, less precise than models, may usefully serve as the basis for elucidating the elusive and allusive nature of insight.
- (2) Even as research definitions of insight become more rigorous, analogies, comparisons and metaphors will continue to be an important source of knowledge and conceptual change in the experience of insight, particularly in life-world situations. Indeed it may well be that analogy is the core of cognition, as Hofstadter (2000) has argued.
- (3) The value of the metaphor of evolution for insight, in which evolution is much smarter than originally conceived of by Darwin, is that in both a new form or structure occurs spontaneously; a ‘generative breakthrough event’, but on a vastly longer timescale.

(4) Perkins' (1995, p. 527) recognition of moments of human insight as the "tips of a much larger iceberg of insightfulness" helps to relate the distinct experience of insight to a level of understanding which may be described as 'insightful'.

(5) The strength and significance of Sternberg and Lubart's (1995) investment metaphor is that it highlights what is often missing in cognitive models of insight, mainly that what is crucial is not so much pure intellectual ability as an attitude towards life, which perhaps comes as close to the existential-phenomenological understanding of disposition as already involved in the world as is possible for a cognitive scientist from a natural scientific perspective.

(6) The word insight itself emphasises its parallels with vision and demonstrates the fundamental importance of metaphor. This also goes beyond linguistic importance since Schooler et al. (1993,1995,1996) concluded that of all the cognitive measures they employed, recognising out-of-focus pictures (as in **2.9.3**, Figure11) was the single best predictor of insight performance.

(7) The concept and practice of haptic vision is a powerful way of critiquing and counteracting the prevailing Cartesian myth of a detached, disembodied and unitary way of seeing; it enlivens the quality and experience of seeing, deepens understanding and so may contribute towards transformative insight.

(8) The problem space metaphor is particularly meaningful for those who work extensively on computer searches, and involves refining problem representation and improving recognition to overcome impasses to insight.

### *The Weaknesses*

(1) Metaphors and analogies are, by their very nature, imprecise. It is easy to be seduced by the points of similarity in a metaphor and so to overlook the points of difference. Often teasing out these differences yields more understanding of the phenomenon and experience of insight. So metaphors are useful and suggestive guides, but become dangerous when they control thinking.

(2) Analogies and metaphors are remarkably seductive (e.g. Faries & Reiser 1990, Thagard & Shelley 2000). This danger applies both to theorists who can get carried away with their own analogies and lose vital perspective about their limitations, and also to the public bombarded by advertising, or manipulated by cheap political sloganeering when metaphors and analogies are used indiscriminately. So examining these 'hidden persuaders' is vital. Of course if the flaw in the analogy is exposed, its seductive power is completely broken, and the resulting insight is

particularly effective in reversing opinion, so metaphors and analogies need to be used responsibly.

(3) As argued, insight itself invites metaphors and insightful solutions often flow from analogies, which is a strength as identified in (6) above, but the shadow side is that insight itself “requires multiple analogies to illuminate its multifaceted nature” (Schooler et al. 1995, p. 559). As Gruber comments, “a single metaphor is always imperfect, but a set of metaphors all almost converging on the same target, do illuminate and define it” (Gruber 1995, pp. 402-403). But using a set of metaphors in this way is not easy.

## **2.10 The Inter-Subjective Approach of Psychotherapy to Insight**

First, the significance of insight in psychotherapy is introduced and then three assumptions underlying this approach of psychotherapy are spelt out. The main structure of this section revolves around the insight of the therapist, the self-insight of the client and the evolving insight in the inter-subjective psychotherapeutic relationship. Obviously, these are not watertight compartments but profoundly inter-related, as in the different dimensions of an object; length, breadth and height.

### **2.10.1 The Significance of Insight in Psychotherapy**

The importance, indeed the centrality, of insight in psychoanalytic psychotherapy is widely acknowledged: “Since Freud’s time, insight has been perceived as the cornerstone of the psychoanalytic theory of structural change” (Crits-Christoph, Barber, Miller & Beebe 1993, p. 408). Insightful interpretation has been described within the clinical psychoanalytic literature as the “supreme agent in the hierarchy of therapeutic principles” (Bibring 1954, p. 763). The importance of insight is not confined to the classical psychoanalytic context. In a seminal study of encounter groups, at a time when, in reaction to barren intellectualism, visceral experience was regarded as key, Lieberman, Yalom and Miles (1973) found that having an experience was not enough. It was essential to have an understanding of the experience; an insightful and therefore meaningful experience. An experience without any insight is meaningless. An experience of an

intellectual insight without any emotional component, if that were possible, would lack transformational power.

Insight in the psychoanalytic approach involves a conscious awareness of some wishes, defences and compromises (e.g. Brenner 1982) that have interacted to produce emotional conflict or deficits in psychological development. Such insight is generally regarded as essential for therapeutic change and usually “follows a slow, gradual accretion of self-knowledge” (Moore & Fine 1990, p. 99). Clearly this involves insight on the part of the therapist, self-insight on the part of the client/patient, and the evolving process of insightfulness, in the inter-subjective relationship.

### **2.10.2 Three Assumptions Underlying this Approach**

Rea (2001, pp. 102-103) eloquently outlines three assumptions underlying the clinical application of important intuitive insight in a shift towards a less prescriptive, more discovery-oriented practice (Bohart 1998):

(1) A client is more than a symptom constellation. The Diagnostic and Statistical Manual of Mental Disorder (DSM-IV), and standardised treatment have been highly successful in reliably defining mental disorders and clarifying therapy into replicable approaches, but neither does justice to the full breadth of a client’s experience, suffering or needs (Henry, Strupp, Butler, Schacht & Binder 1993, Schneider 1998b,1999). As Erickson expresses it: “Each person is a unique individual. Hence psychotherapy should be formulated to meet the uniqueness of the individual’s needs, rather than tailoring the person to fit the procrustean bed of a hypothetical theory of human behaviour” (quoted by Zeig & Lankton 1988, p. vii).

(2) A therapist is more than a technician. Following a narrowly defined conception of therapy has the advantage of reducing ambiguity, confusion, frustration, and doubt. However, it is tolerance for precisely these experiences that enables a psychotherapist to think creatively and remain more focussed on what is happening in the room than in the literature (Karon 1998).

(3) Therapy is more than a treatment; it is a multifaceted and profoundly personal relationship between complex people. Buber (1970) framed this very distinction with eloquence and continuing relevance in differentiating between “I-It” and “I-You” human relationships.

Manualised and prescriptive therapy, especially in their more rigid forms, come precariously

close to “I-It” relationships. Henry et al. (1993, p. 438) in their examination of “standardised treatment” conclude: “[a]lthough treatment was delivered, the therapy ... did not always occur”.

### **2.10.3 Insight of the Therapist**

Three aspects of the insight of the therapist will be considered; insight as analytic intuition, insight as interpreting psychoanalytic theory and insight in terms of therapist characteristics and techniques.

#### **2.10.3.1 Insight as Analytic Intuition**

Intuition is a rapid, highly structured form of non-conscious processing (Bowers et al. 1990, Lewicki, Hill & Czyzewska 1992, Reber 1989), which in empirical studies has been shown to be faster, more accurate and more sophisticated than analytical thinking (Hammond, Hamm, Grassia & Pearson 1989). Reber (1989) deduced that knowledge acquired and held implicitly is always more complex than can be explicated, so verbalisations appear to lag well behind the actual depth of our intuitive understanding. This was confirmed by Schooler et al. (1993) in investigations of the relationship between insight and language.

Williams (2006) identifies some important areas of congruence between Jung and Bion which illuminate analytic intuition. Bion points out that psychic reality cannot be apprehended by the senses in the way that physical symptoms can be. “I propose to use the term ‘intuit’ as a parallel in the psychoanalyst’s domain to the physician’s use of ‘see’, ‘touch’, ‘smell’ and ‘hear’ (Bion 1970, p. 7). So you *see* the client’s tears, but *intuit* the emotional reality – that, for instance, they are tears of rage or shame, not grief. Jung (1971, p. 454) described intuition as the ability to see beyond the empirical evidence, so intuition was “not *contrary* to reason but beyond reason”. It was perception via the unconscious, as opposed to perception via the senses.

Bion saw intuition as coming alive in the analyst only in a state of “reverie” or relaxed attention (Bion 1962a, p. 87). Jung, in a similar way, describes intuition as operating when the analyst is in “a state of contemplation, in which ideas pass before the mind like dream images ... such a moment often works like a revelation” (Jung 1946, p. 116). But for both Bion and Jung the cost of working in this way is considerable. Jung describes it as being brought to an “unbearable standstill” – “when my conscious mind no longer sees any possible road ahead and gets stuck”

(Jung 1931, p. 42). Bion describes it as a sense of “dread” requiring “an act of faith” that accompanies the relinquishing of memory, desire and conscious understanding, in opening himself to the experience of bewilderment (Bion 1970, p. 35). He even describes it as a “blindness” that is a prerequisite for “seeing” (Bion 1970, p. 58).

As Williams (2006, p. 96) points out “both Bion and Jung were aware of the need for correlation between conscious and unconscious data in order to arrive at analytic insight. Bion termed this process of correlation ‘binocular vision’ while Jung termed it ‘transcendent function’”. Both conceived of the partition between the conscious and the unconscious in an identical analogy – a semi-permeable membrane, a “mental diaphragm” (Bion 1980, pp. 108,110). Jung thought an individual remained creative to the extent that he/she was able “to sustain permeability of the partition separating conscious and unconscious” (Jung 1958, p. 70).

### **2.10.3.2 Insight as Interpreting Psychoanalytic Theory**

In research focussing on the insightfulness of the therapist in assessment and interpretations, the task of the psychotherapist has been specified as “(a) arriving at a succinct formulation of the patient’s main maladaptive relationship pattern and (b) centering interpretations around this pattern ... interpretations that accurately bear on this central theme are a primary curative factor in psychotherapy” (Crits-Christoph, Cooper & Luborsky 1988, p. 490). This “central theme” is termed the *Core conflictual relationship theme* (CCRT) which was developed as a reliable measure of central relationship patterns having three components: “(a) the patient’s main wishes, needs or intentions towards the other person in the narrative; (b) the responses of the other person; and (c) the responses of the self” (Crits-Christoph et al. 1988, p. 491). In addition, in this study an *interpretation* is defined either as the therapist explaining “possible reasons for a patient’s thoughts, feelings or behaviour” or as the therapist alluding to “similarities between the patient’s present circumstances and other life experiences” (Crits-Christoph et al. 1988, p. 491). So accuracy of interpretations depends on the degree of congruence between the contents of the patient’s CCRT, assessed by independent judges, and the content of the therapist’s interpretations. The study concluded: “A statistically significant and moderately strong relation was found between accuracy of interpretations ... and treatment outcome” (Crits-Christoph et al. 1988, p. 493).

However, two questions arise. *First*, does psychoanalysis, in being centrally concerned with the unconscious and the historical determinants of experience and behaviour, have a diminished interest in, and understanding of, the phenomenon of self-insight as a human experience? It appears to be primarily interested in this phenomenon as it pertains to its central theory and practice. *Second*, is there an element of circularity in this particular process of insight? It appears that insight is required for diagnostic formulation and that the validity of insightful interpretations are judged by their faithfulness to this diagnosis. The argument is *not* that this circularity invalidates the research, since the diagnostic formulation is done by independent trained judges, but the question arises, whether in normal psychoanalytic practice without independent judges, this rather technical and circumscribed role for insight may lead to a limited understanding, and diminished expectations of the relational experience of insight in the therapeutic relationship?

So, for a balanced clinical approach, *both* learning the logic of psychoanalytic theory *and* the ability to intuit psychic reality is crucial. In Rea's vivid image, instead of standing in a balanced way on both feet, there is a danger of "standing on one's own foot. Our meticulous logic certainly asserts its value convincingly, but it has done so by stepping on the very element with which it was meant to work in tandem" (Rea 2001, p. 105).

### **2.10.3.3 Therapist Characteristics and Techniques**

A comprehensive and frequently quoted review of therapists' personal characteristics and in session activities and techniques that negatively and positively impact the therapeutic alliance, has been undertaken by Ackerman and Hilsenroth (2001,2003). It is noteworthy that the number of studies evaluated is considerable, the range of research participants and therapists involved is impressive, the variety of treatments considerable and the instruments and raters employed in assessing the results the best available. However, as Roth and Fonagy (2006, p. 464) point out in their critical review of psychotherapy research *What Works for Whom?*, disentangling process factors is very difficult "simply because these measures are not independent of one another". The table summarising the results of Ackerman and Hilsenroth's (2003, p. 28) research on the next page reflects their correlation of personal attributes and therapeutic techniques, that were reported

to be important in the development and maintenance of a strong therapeutic alliance. However, references of sources has been added from the text of their research.

This evidence “supports the belief that the alliance is a pan-theoretical construct, impacting psychotherapy process on multiple levels” (Ackerman & Hilsenroth 2003, p. 28).

Table 3. Summary of Therapist’s Attributes and Techniques

PERSONAL ATTRIBUTES	THERAPIST’S TECHNIQUES	REFERENCES OF SOURCES
Flexible	Exploration	Allen et al. (1996), Bachelor (1991), Gaston & Ring (1992), Joyce & Piper (1998), Kivlingham et al. (1993), Mohl et al. (1991)
Experiences	Depth	Hersaug et al. (2001), Mallinckordt & Nelson (1991)
Honest	Reflection	Ackerman et al. (2000), Hembre & Kvarme (1996) Svenson & Hansson (1999)
Respectful	Supportive	Sexton, Hembre & Kvarme (1996)
Trustworthy	Notes past success	Horvath & Greenberg (1989)
Confident	Accurate interpretation	Allen <i>et.al.</i> (1996), Crits-Christoph et al. (1993), Ogrodniczuk & Piper (1999), Saunders (1999)
Interested	Facilitates affect	Saunders (1999)
Alert	Active	Dolinsky et al. (1998), Luborsky et al. (1983), Mohl et al. (1991)
Friendly	Affirming	Bachelor (1991, 1995), Crits-Christoph et al. (1998), Diamond et al. (1999), Price & Jones (1998), Saunders et al. (1989)
Warm	Understanding	Crits-Christoph et al. (1998), Mohl et al. (1991), Saunders et al. (1989)
Open	Attends to experience	Crits-Christoph et al. (1998), Horvath & Greenberg (1989), Hersoug et al. (2001), Joyce & Piper (1998), Price & Jones (1998)

The strength of this research lies in the comprehensiveness of the review of both therapist's personal attributes, and techniques. The weakness in this research appears to be the lack of correlation between therapist's attributes, and techniques, which is not so securely found in the literature, but is displayed in the summary Table 3 above, as if they were clearly correlated.

So, in terms of whether it is possible to draw significant deductions from this research for the understanding of insight as far as this research is concerned, the crucial questions are:

- (1) Is it possible to correlate personal attributes and therapeutic techniques as clearly and distinctly as this research suggests?
- (2) Is the technique of "accurate interpretation" by the therapist an adequate description of the experience of insight in the therapeutic relationship?
- (3) Does the personal attribute of "confident" on the therapist's part necessarily lead to "accurate interpretation", let alone facilitative and empowering insights?

Clearly, it is not possible to give an unambiguous affirmative answer to any of these questions, so despite the potential value and the comprehensive scope of this research, its contribution to this study of insight is limited, for four main reasons:

- (1) Personal attributes and therapeutic techniques are not necessarily related as closely and distinctly as this research suggests. Therapists with similar personal attributes and characteristics may be trained in, and embrace, a variety of techniques.
- (2) The use of the term "insight" has changed over time, because the basic premises of the psychoanalytic frame have moved from a more intrapsychic model to the relational model which incorporates object relations thinking (Atwood & Stolorow 1984, Stolorow, Atwood & Brandchaft 1999). The present study provides a different lens on the discussion and makes a distinction between insight in terms of intuitive thinking and awareness (the art of psychotherapy, e.g. Rea 2001) as opposed to insight as interpreting and applying psychoanalytic theory (the science of psychotherapy, e.g. Malan 1979).
- (3) Free association forms a central part of the process of psychoanalytic technique and this is not clearly evident in Ackerman and Hilsenroth's (2003) personal attribute of "flexible". Yet free association is a certain way of relating to the client's world that allows for the development of 'clues' or 'links' and possible insight.

(4) The personal attribute of “confident” on the part of the therapist is surely no guarantee of “accurate interpretation” in the therapist’s technique. In fact accurate insight underlying interpretation is often most accurate, facilitative and empowering when humbly held in mind by the therapist until it emerges in the relational field that patient and therapist share – the transference-counter-transference relationship .

#### **2.10.4 Insight of the Client**

Both quantitative research and qualitative research of client self-insight will be examined in a way that reveals the strength of both approaches.

##### **2.10.4.1 Self-Insight in Quantitative Research**

In research focussing on client insight, by Kivlighan, Multon and Patton (2000), insight was rated from the Important Events Questionnaire (Cummings, Martin, Hallberg & Slemon 1992) about the counselling session just completed. Trained judges evaluated the *insightfulness* of these clients’ responses using Morgan, Luborsky, Crits-Christoph, Curtis & Solomon’s (1982) Insight Rating Scale. They also used the target complaint scale (Battle, Imber, Hoehn-Saric, Stone, Nash & Frank 1967) in which clients identified three problem areas that they wanted to address in counselling. The most important finding in the study of Kivlighan, Multon and Patton was the confirmation of the psychoanalytic assertions about client insight and symptom formation and reduction:

Sessions where clients were judged to have more insight were immediately followed by a week when the client had less target complaint distress. Conversely when clients were judged to have less insight in a session, they had more target complaint distress the following week. (2000, p. 56)

This is a very clear indication of the significance and therapeutic power of insight in psychotherapy. This finding replicates and extends the work of Grenyer and Luborsky (1996) who had shown that insight ratings were significantly higher at the end of treatment when compared to the beginning of treatment. Kivlighan, Multon and Patton (2000, p. 56) also found it “very encouraging that the different methods of operationalising insight seemed to converge on a common underlying construct”. They refer particularly to the pan-theoretical measure of Hill, Corbett, Kanitz, Rios, Lightsey and Gomez (1992), as well as to Gelso, Kivlighan, Wine, Jones

and Friedman's (1997) method of measuring client insight at multiple time periods during treatment instead of just at the end of the treatment. However they do recognise the importance of further psychometric studies of insight ratings.

In considering self-insight, it is particularly important to be aware of the danger for the client of defining him/herself, or worse still of being implicitly defined by the therapist, in reductionistic, compartmentalised and utilitarian ways which obscure the essence of the uniquely human dimensions of human identity. Living in a world of proliferating technology (Heidegger 1977, Roszak 1992) there is a risk of unconsciously colluding with a cultural trend to view humans as 'objects' in order to fit 'normatively' into the emerging world of specialised and efficient systems.

#### **2.10.4.2 Self-Insight in Qualitative Research**

So, in existential-phenomenological research focussing on the self-insight of the client that carries a greater sense of freedom, Todres (1990,2002) emphasises the fact that human living is an unfolding narrative in which meaning rather than measurement is the appropriate currency of understanding. He therefore expresses the results of his study in a way that reveals possibilities with actual variations rather than conclusions which are deterministic in nature, and are thematic rather than final. So "[t]he aim is not a conclusion, not to close the subject, but to open it further" (Sardello 1975, in Todres 1990, p. 49).

Thus Todres' (1990, pp. 140-141) findings of the kind of therapeutic self-insight that carries with it a greater sense of freedom is constituted by its ability to:

- (1) descriptively thematise the quality of a problematic and significant self-other relationship that was previously embedded in an unclarified emotional existence
- (2) progressively articulate the quality of a related central theme which links and makes sense of all kinds of previously unrelated interactions in the person's life
- (3) validate the credibility of the emerging theme by realising its power to organise further dreams, memories and behaviour
- (4) understand the restrictive quality of being bound to the profiles of the theme
- (5) thematise a level of personal agency and responsibility in perpetuating the restrictive qualities of the theme-bound existence

- (6) recognise and then question the inevitability of one's self-image and self-project
- (7) articulate and actualise a more complex self-image/project in which the freedom of greater ambiguity is experienced
- (8) achieve a sense of self-acceptance, understanding of and continuity with one's previous restrictive mode of being, by finding a positive value in its motives and desires
- (9) actively support freer engagement with the world, so the future as 'potential' becomes empowered.

In reflecting on this research, Todres (2002) identifies five points about this self-insight, which may be briefly summarised thus:

- (1) particular self-insights were important, but their credibility, meaningfulness and freeing power lay in the personal narrative that had been forged as their context
- (2) self-insight implies the work of linking parts into wholes and recognising patterns that have preceded it, and the potential directions that can come after it
- (3) the insightful quality of this pattern of discovery/creation is in its 'sense-making' which is emotionally healing because of the inner need for (a) personal truth when words fit experiences, (b) self-acceptance/forgiveness/care, and (c) hope for personal agency in which there is a transcendental quality beyond a self that is reduced to the sum total of its past experiences
- (4) therapeutic self-insight is "not the fundamental point of psychotherapy: it is more a means to an end, and points to an experience... 'of being more than' or of 'being as possibility' that is the essential power of psychotherapy" (Todres 2002, p. 10, see also Todres 1993,2000a)
- (5) the relationship with the therapist provides an important lived context for the validation and support of the emerging themes. Two images are used to describe this therapeutic relationship; it is an 'anchor' that also gives a 'foothold' to a new possibility (Todres 1990, p. 141)..

### **2.10.5 The Evolving Insight in the Inter-Subjective Psychotherapeutic Relationship**

Three aspects of insight in the inter-subjective psychotherapeutic relationship will be examined, with the explicit purpose of illustrating the richness and variety, the speed, subtlety and transliminal nature of the way insight occurs in this relationship. First, the unique interpretation of interpretations in insight. Second, the role of implicit knowledge and intuitive thought in

insight and third, associations as representatives of the “unthought known” (Bollas 1987) in insight.

#### **2.10.5.1 The Unique Interpretation of Interpretations in Insight**

In speaking to a client, a psychotherapist may have a clear idea in her mind exactly what she wishes to say, and it may make perfect analytical sense, but as Bollas puts it:

we know only too well that the analysand will be affected by virtually every interpretation in quite unique ways (and how could it be otherwise?). Each interpretation evokes associations, categories of thinking, and self-states just as it promotes a subjective movement in the analysand that will ultimately deliver more of the analysand’s idiom of thinking than the analyst’s originating contribution. (1992, p. 44)

So it is important to be aware of the way two subjects evoke one another in unique ways, inaugurating a reciprocal engagement in simple and complex self-experiencing, in which both participants engage in moments of deep experiencing and episodes of reflective objectification. This is what Bollas (1992, p. 46) terms: “*play work* to honour the two-and-fro of work and play, of reflecting and experiencing, that takes place between the two participants in psychoanalysis”.

#### **2.10.5.2 The Role of Implicit Knowledge and Intuitive Thought in Insight**

A crucial question is whether there is an openness in the inter-subjective relationship to the rich variety of forms of intuition and insight. It might come as a flash of understanding, an imaginative or creative impulse, or a choice which suddenly emerges. It could emerge through an evocative suggestion, a prediction, a nudge or an hunch; or even as an empathic sense of knowing, a clarity of ‘seeing’ a previously overlooked issue, a transcendent experience. Yet it need not be dramatic, or may not even be noticed initially, for as Lewicki, Hill and Czyzewska express it:

our nonconscious information-processing system appears to be incomparably more able to process formally complex knowledge structures, faster, and ‘smarter’ overall than our ability to think and identify meanings of stimuli in a consciously controlled manner. (1992, p. 799)

In similar vein, Reber (1989) deduced that knowledge acquired and held implicitly is always richer and more complex than can be explicated. Yet, it appears human beings are capable of using that tacit knowledge to inform action, preferences, judgements and learning, very frequently without knowing that they have done so. Is this not what is frequently experienced as intuition: the *sense* we have of where to look, what to look at, and how to look at it? Intuition is derived from the Latin *intueri* ‘to look upon’ as in the definitions of insight (2.2), “the ability to see clearly and intuitively into the nature of a complex person, situation or subject” (Guralnik 1984).

### **2.10.5.3 Associations as Representatives of the Unthought Known in Insight**

Bollas (1987, p. 4) explored the “reliving through language of that which is known but not yet thought”, which he terms “the unthought known”. It is often argued that insights are known at some unconscious level before becoming conscious, for example Siegler and Stern (1998), who set young school age children problems of the form  $A+B-B$ . The results were striking. Almost 90% of the children discovered the unconscious version of the shortcut/insight/intuition before using the conscious version. There may be a certain scientific elegance and simplicity in this, yet unfortunately it is true that what is of least significance in human terms is often what is most easily measured and quantified. A person’s experience involves meanings that may be far greater than he or she knows. Perhaps reflecting on the more complex intersubjective approach of psychoanalysis provides a more significant, profound and true to life experience even if less precise, of the ‘unthought known’ in the experience of insight.

It is evident that in the inter-subjective relationship there are binary pairs that structure the dialectic between the client and psychotherapist. There are transferences and counter-transferences, the client’s narratives and the therapist’s associations, the client’s revelations and the therapist’s questions, to mention just a few. If these can be viewed as the work of two separate yet deeply involved unconscious subjectivities, then Bollas concludes:

much of the work of psychoanalysis is a kind of dream work. Mutually agreed upon core interpretations are, then, the dreams of psychoanalysis, constructed more through the

interlocking logics of an unconscious dialectic than from the secondary-process delivery of a white-clothed surgical intervention. (1992, p. 99)

In this situation the psychotherapist may share a spontaneous thought or memory that he is having, which is not a question, clarification or interpretation, but is more of a free association in response to such “dream work”. Such an association may provide the client with a pre-conscious link to unconscious latent thoughts; such an association may be a representative of the “unthought known” (Bollas 1987,1992) and trigger insight. The irony is that the therapist’s misunderstanding of his client, as well as the client’s distortion of the therapist’s meanings, may be as essential to the “dream work” of psychotherapy as part of the process of coming to a fuller and more true understanding.

It is sobering to recognize that most of our life is lived unconsciously, in dialogue with other people’s unconscious, yet in the therapeutic relationship it is only too easy for the psychotherapist to be unduly afraid of his/her internal life, so that the very natural associations and other material from the non-conscious information processing system which might trigger insight are excluded. Bollas concludes: (1992, p. 116) “Is this ‘mental apartheid’ not conveyed to our patients, whom, after all, we otherwise credit with sensing even the slightest details of our life? Do we not convey a fear of subjectivity itself?”

Before concluding this inter-subjective approach of psychotherapy to insight with an evaluation, it may be appropriate to explore the nature and relationship of insight as interpreting psychoanalytic theory and insight as analytic intuition. This will be reflected upon, initially in a slightly whimsical fashion, evoked by poetic imagery in the film version of Ondaartje’s *The English Patient*.

#### **2.10.6 A Reflection on the Difference between Insight as Interpreting Psychoanalytic Theory and Insight as Analytic Intuition**

Hana, who has been tenderly nursing the English patient, steps out into the night. To her surprise she finds a candle, then another at some distance, and another - following them in rising expectation, she comes to where Kip, the Sikh sapper, awaits. Then she rides pillion on his motorbike to the church, where in the dark shadows of the cavernous space he hoists her on a

sling attached to a rope coming from the high dark ceiling. As she is swung from wall to wall, torch in hand, the torchlight illuminates details of fascinating medieval murals. Both scenes are hauntingly beautiful in the way they are choreographed and lit.

Perhaps in these two scenes there are illuminating, and complementary, images of insight as interpreting psychoanalytic theory and insight as analytic intuition. In the first, Hana walks, following the candles with increasing excitement in her step; in the second, she swings wildly on the end of the rope. The candles lit by another guide her; the torch is held in her own hand. The fixed points of light are at intervals on a path; the swaying beams of torchlight move from wall to wall, mural to mural. The candles are an invitation to explore; the sling in which she sits at the end of the rope reveals a commitment already made. The candlelit path has been trodden by others; swinging on the end of the rope is a unique personal experience. There is a sense of order about following the candles; a sense of poetry in motion as she swings from wall to wall. Both have dark spaces and shadows, but the lights are regular on the path; the torchlight is kaleidoscopic as she swings. Such is the difference between insight as interpreting psychoanalytic theory and insight as analytic intuition.

In a therapeutic relationship, both forms of insight are very valuable, both are complementary and both are an invitation to intercourse. Such intercourse is a constant 'back and forth' in the reciprocity of giver and receiver. There is a freedom of coming together and moving apart. Now from reflection to evaluation.

### **2.10.7 An Evaluation of the Contribution of the Inter-Subjective Approach of Psychotherapy**

As in previous evaluations, the particular strengths and weaknesses of this approach will be enumerated.

#### *The Strengths*

In order to do justice to this approach it is necessary to include *firstly*, the insight of the therapist, *secondly*, the self-insight of the client and *thirdly*, the evolving inter-subjective insight.

*Firstly*, the insight of the therapist.

(1) Insight as applying and interpreting highly developed psychoanalytic theory, which is increasingly supported by recent findings of neurological science (e.g. Damasio 2000,2006, Kaplan-Solms & Solms 2002, Solms & Turnbull 2002), leads Christoph et al. (1988, p. 493) to conclude that “[a] statistically significant and moderately strong relation was found between accuracy of interpretations and treatment outcome”.

(2) The insightfulness of analytic intuition is reflected upon profoundly in the literature (e.g. Bollas 1987,1992), not only its nature and its relation to conscious and unconscious processes, but its development in the psychotherapist and its use in the psychotherapeutic relationship.

*Secondly*, the self-insight of the client.

(1) This self-insight is related to finding meaning and making sense of, as well as understanding, a person’s own life. This usually involves an increased awareness of wishes, defences, compromises, developments and conflict. The non-judgmental nature of such insight is important.

(2) Not only is a *client* more than a symptom constellation, a *therapist* more than a technician, and *therapy* more than a treatment, as Rea (2001) reminds us, but *self-insight* is more than an end of psychotherapy; it is a means to an end which points to an experience of being ‘more than’, or of ‘being as possibility’ as Todres (2002, pp. 8-9) expresses it.

(3) An important finding and clear indication of the significance and therapeutic power of self-insight in psychotherapy is that of Kivlighan et al. (2000, p. 56): “Sessions where clients were judged to have more insight were immediately followed by a week when a client had less target complaint distress”.

(4) The qualitative approach of Todres’ (1990) emphasis on human living as an unfolding narrative, in which meaning rather than measurement is the appropriate currency of understanding, values not just individual and particular self-insights but the way self-insight implies the work of linking parts into wholes and recognising patterns that have preceded it as well as potential directions that come after it.

*Thirdly*, insight in the inter-subjective relationship.

(1) It is important and sobering to recognise that much of life is lived unconsciously in dialogue with other people’s unconscious. So despite the unpredictability and unique complexity of the

way in which two subjects evoke one another, and the problems that this raises for research, it is important in the therapeutic relationship to trust intuitive insight – the non-conscious information processing system and implicitly acquired knowledge – rather than just the ability to think in a consciously controlled manner (e.g. Rea 2001).

(2) It is part of the special nature of the therapeutic alliance and of inter-subjective insight, that it can facilitate the repair and understanding of the client’s relationships (e.g. Roth & Fonagy 2005). A particularly valuable therapeutic feature of such evolving insight is frequently its non-judgmental nature.

### *The Weaknesses*

*Firstly*, insight of the therapist.

(1) Rea (2001, p. 98) reminds us:

As clinical psychology closes in on its near-perfect emulation of the “medical model”, it would seem we have swallowed both bait and hook (Albee 2000); that is, although we have gained the empirical (and professional) validation afforded a hard science, we have also limited our understanding of people to what can be readily quantified, and narrowed our concept of intervention to what we can operationalize (Goldfried & Wolfe 1998).

In this situation, it is not surprising that the subject of intuitive insight has been regarded with suspicion and often relegated to a “fringe curiosity, to be used often but discussed very little” (Rea 2001, p. 98).

(2) Psychoanalysis does appear to be primarily interested in the phenomenon of insight as it pertains to its central theory, diagnostic practice and method of interpretations (e.g. Roth & Fonegy 2005), which is a rather limited view of a much broader human experience which frequently occurs outside of the therapeutic setting.

(3) One of the consequences of limiting the therapeutic use of insight almost entirely to interpretations is that it implies there is virtually no place for insight with clients who have a low quality of object relations, (but are not necessarily “borderline”) since Connolly, Crits-Christoph, Shappell, Barber, Luborsky and Shaffer (1999) suggest that interpretations are toxic to such clients. That interpretations may be toxic to some clients is not disputed; that intuitive insight expressed in supportive and empathic terms in therapy with such clients can be very valuable, reveals that such insight needs to be distinguished from interpretation of psychoanalytic theory.

(4) The attempt to link the personal attributes of therapists with particular therapeutic techniques impacting the therapeutic alliance must be acknowledged as having largely failed, at least as far as insight is concerned (e.g. Ackerman & Hilsenroth 2003). The phenomenon of insight is far too rich and varied, as well as depending on a number of personal attributes and skills of therapists, to be convincingly portrayed in this way.

*Secondly*, self-insight of the client.

(1) Clients frequently desire a diagnostic label as a way of being understood and ‘normalising’ their problems, instead of the much harder work of gaining self-insight. Nevertheless it is of vital importance that ‘patients’ are not subtly defined in reductionistic terms which may give a false sense of being understood, and may diminish a sense of personal agency as well as obscure the essence of the uniquely human dimensions of identity.

(2) A significant limitation of the study by Kivlighan et al. (2000), acknowledged by the authors, is that insight is measured at a general, abstract level, and the three specific client target complaints were combined into a composite score; yet, psychoanalytic theory suggests that there is a specific relationship between a particular unconscious conflict and the resulting expression of a particular symptom. It is only realistic to recognise that these measurements, particularly where a client’s problem is multi-determined, are problematic. Unfortunately it is generally true that the accuracy of the measurement is directly proportional to the triviality of the variable.

*Thirdly*, insight in the inter-subjective relationship.

(1) While it is true that “insight has been perceived as the cornerstone of the psychoanalytic theory of structural change” (Crits-Christoph et al. 1993, p. 408), it is revealing that none of the recent major reviews of psychotherapy research list “insight” as an entry in their subject index; it is only treated as a minor part of the therapeutic alliance (e.g. Ackerman & Hilsenroth 2001, 2003, Norcross 2002, Roth & Fonegy 2005). This is probably largely due to the complexity of two separate, yet deeply involved, unconscious subjectivities in which the processes are difficult to identify and almost impossible to research in a quantitative way. Further qualitative research is needed “not to close the subject, but to open it further” (Sardello 1975).

## 2.11 The Body-Mind-Spirit Continuum Approach of Spirituality to Insight

In order to explore the body-mind-spirit continuum approach of spirituality to insight, it will be necessary to first sketch the origins and consummation of spirituality, then trace the origins of spirituality in Africa and then draw a distinction between spirituality and religion, before clarifying what is meant by the body-mind-spirit continuum. It will then be possible, in the main body of this approach, to define trans-cultural and ecumenical spirituality, before exploring and reflecting on four specific, but very different, experiences of insight. Finally an evaluation will be undertaken of the contribution of the approach of spirituality to the understanding of insight.

### 2.11.1 The Phenomenon of Man: The Origins and Consummation of Spirituality

“*To see or to perish* is the very condition laid upon everything that makes up the universe, by reason of the mysterious gift of existence. And this, in superior measure, is man’s condition”. So writes de Chardin in his foreword to *The Phenomenon of Man* (1959, p. 31). This *seeing* in human beings is quite specifically the ability for awareness, self-reflection and conscious insight.

De Chardin conceives of evolution, not simply as a crude or brute force of survival of the fittest, not as chaotic or random, but as an evolving ascent towards consciousness – drawn and directed by spirit. He traces the progress of cosmogenesis from *geosphere* (the solid material of the earth) to *biosphere* (the whole area of the earth’s surface, atmosphere and sea inhabited by living things) leading to *noosphere* (a term coined by de Chardin, denoting the sphere of mind and defined in terms of an increase in consciousness). This remarkable synthesis of the material and physical world with the world of mind and spirit acts as a transforming agency promoting what de Chardin describes as ‘hominisation’, or body-mind-spirit evolution, in which man discovers that he is “evolution becoming conscious of itself” in Huxley’s striking expression (de Chardin 1959, p. 221).

This synthesis of the material and physical world with the world of mind and spirit is very significant in terms of understanding the origins and consummation of spirituality. Through his combination of wide scientific knowledge with deep religious feeling and a rigorous sense of values he has in the words of Huxley’s preface “freed theologians to view their ideas in the new

perspective of evolution, and scientists to see the spiritual implications of their knowledge. He has both clarified and unified our vision of reality” (de Chardin 1959, p. 26).

De Chardin uses a vivid simile:

Like the meridians as they approach the poles, science, philosophy and religion are bound to converge as they draw nearer to the whole. I say ‘converge’ advisedly, but without merging, and without ceasing, to the very end, to assail the real from different angles and on different planes. (1959, p. 30)

There are three inter-related themes under which de Chardin sums up his argument:

- (1) A world in involution, or the cosmic law of complexity-consciousness
- (2) The first appearance of man, or the individual threshold of reflection
- (3) The social phenomenon or the ascent towards a collective threshold of reflection.

During evolution, awareness becomes increasingly important to organisms until in humankind it becomes the most important characteristic of life and gives humankind its dominant position.

“When for the first time in a living creature, instinct perceived itself in its own mirror, the whole world took a pace forward” (de Chardin 1959, p. 181). This particular “pace forward”, this self-awareness, this capacity for self-reflection, is the origin of spirituality.

So de Chardin (1959, pp. 183-184) argues that “[t]he greatest revelation open to science today is to perceive that everything precious, active and progressive originally contained in that cosmic fragment from which our world emerged is now concentrated in a ‘crowning’ noosphere”. In the course of this argument he recognises that “[t]here is no concept more familiar to us than spiritual energy yet there is none that is more opaque scientifically” (de Chardin 1959, p. 62). He also acknowledges that we are caught up in the logic of a system where the *within* of things has just as much, or even more value, than their *without*, and illustrates his meaning in terms of “the magic of a sound which goes in our ears as a vibration and reaches our brains in the form of inspiration” (de Chardin 1959, p. 63). This understanding of the *within* and *without* is similar to the famous definition of spirituality, in a very different and political context, as an “excess of being over appearance” in the work of Lefort (2006). De Chardin assumes that “essentially, all energy is psychic in nature”, but adds that:

in each particular element this fundamental energy is divided into two distinct components: a *tangential energy* which links the element with all others of the same order...as itself in the universe; and a *radial energy* which draws it towards ever greater complexity and centrality – in other words, forwards. (1959, pp. 64-65)

In this view, *tangential energy* is understood by science and *radial energy* by self-reflection and spirituality. He sees religion and science as

the two conjugated faces or phases of one and the same complete act of knowledge...in the conjugation of reason and mysticism the human spirit is destined, by the very nature of its development, to find the uttermost of its penetration with the maximum of its vital force. (1959, p. 285)

There are three striking points of originality in de Chardin's argument as far as the origins and consummation of spirituality is concerned:

(1) He sees the universe not only in a process of *spatial expansion* (from the infinitesimal to the immense) and in a process of *organic involution* upon itself (from the extremely simple to the extremely complex), but he also sees this involution of complexity as experientially bound up with the psyche or consciousness.

(2) He sees the power of reflection in human beings in terms of “the value of a ‘threshold’ or a change of state ... nothing less than a new form of biological existence” (1959, p. 303) which is characterised by such things as emerging from instinct into thought, invention, sympathy as well as antipathy, and consciousness of the future.

(3) He sees the human group as turning towards a “second critical pole of reflection of a collective and higher order...that transcendent focus we call Omega, the principle which at one and same time makes this involution irreversible and moves and gathers it in” (1959, p. 303).

These are three remarkable insights.

De Chardin's vision is that the phenomenon of man should culminate forwards in some sort of “supreme consciousness” (de Chardin 1959, p. 258). He argues that “in every organised whole, the parts perfect themselves and fulfil themselves” (de Chardin 1959, p. 262), and that there is a “Resonance to the All” (de Chardin 1959, p. 266) which he denotes as “Omega”.

In this way he comes to a striking conclusion that “the only universe capable of containing the human person is an irreversibly ‘personalising’ universe” (1959, p. 290). He clarifies ‘personalising’ as “the palpable influence on our world of *an other* and supreme Someone” (1959, p. 298). This reaches the climax in which a person is able to say “literally to God that one loves him, not only with all one’s body, all one’s heart and all one’s soul, but with every fibre of the unifying universe” (1959, p. 297).

This climax is not just a breathtaking description of spirituality. The whole process is dependent upon insight. De Chardin argues that insight is increasing and irreversible because “internal vision is essentially the germ of a further vision which includes all the others and carries still farther on” (de Chardin 1959, p. 231). This is the crux of the dynamic relationship between insight, spirituality and love.

### **2.11.2 The Origins of Spirituality in Africa**

Spirituality emerged as human beings began to be self-reflectively conscious and ask questions about the meaning and purpose of life and ‘what will become of me after I am dead?’ Evidence from Upper Paleolithic rock paintings in South Africa and Botswana examined by Clottes and Lewis-Williams (1998) and by Lewis-Williams (1986) reveals this self-reflective consciousness ... These rituals and symbolic images seen in altered states of consciousness are best interpreted from the perspective of San spirituality as Lewis-Williams (2002, pp. 121-130) argues. The notion of powerful natural animal and human/animal spirits is nearly universal in traditional shamanistic religions (Hayden 2003, pp. 57-60). In examining the evolution of religion, Rossano (2006, p. 359) concludes: “ecstatic states and social emotions ... are hypothesized to form the foundational basis for the emergence of religion”. Spirituality is central to all philosophical-religious traditions that have informed conceptions of the good life since ancient times in the East and West (Ng, Ho, Wong & Smith 2003).

### **2.11.3 A Distinction between Spirituality and Religion**

Spirituality is derived from the Latin word *spiritus* which refers to a non-material vital life force within the person. Spirituality typically encompasses the search for existential meaning, whether or not in the context of a particular religious tradition. This search may, or may not, implicate a

supernatural or sacred component. So spirituality has been defined as the different ways in which people understand and seek transcendent or existential meaning and value (Sulmasy 2002). The personal element is emphasised by Hill, Pargament, Hood, McCullough, Swyers and Larson et al. (2000), and relatedness by Zimbauer, Pargament and Scott (1999).

Religion, on the other hand, is derived from the Latin word *religare* which means to bind together, and so tends to be associated with rigid social structures and institutions (Pargament 1997). This viewpoint emphasises dogma, doctrine, tradition and organisation (Zimbauer et al. 1999) rather than the development of human potential. So it is sometimes said, tongue in cheek, that religion is for those who fear going to hell, whereas spirituality is for those who have been through hell and want to live more fully. However, to be fair, according to most definitions, orthodox religion refers to both the public practices, rituals and observances, as well as the inward attitudes, values and disciplines specific to that particular expression of faith.

Sulmasy (2002) has pointed out that although not everyone has a religion, anyone who is seeking for ultimate or existential meaning has a spirituality. Ho and Ho (2007) view religiosity and spirituality as two overlapping constructs; neither is necessary or sufficient for the other, so it is “possible to be religious without being spiritual, or spiritual without being religious, be both or be neither” (Ho & Ho 2007, p. 65). Religiosity has the potential for hypocrisy, dogmatism and even fanaticism (Stern 2004), whereas “spirituality has inherent immunity to guard itself against these perils because of its propensity towards humility, contemplativeness, and self-reflection” (Ho & Ho 2007, p. 65). It is, of course, important to acknowledge that spirituality and religion are multifaceted and multidimensional constructs (Gartner 1996). Religion “may lead to growth and transformation for some people and to distress and despair for others” (Fitchett, Murphy, Kim, Gibbons, Cameron and David 2004, p. 180). Much depends on the person’s image of God (Linn, Linn & Linn 1994), the interaction of brain, body and world (Clark 1997), coping mechanisms (Pargament 1997), self-competency and whether religion is being used merely as a defence (Pargament & Park 1995), as well as whether their religious orientation is intrinsic or extrinsic (Park & Cohen 1993).

#### 2.11.4 The Body-Mind-Spirit Continuum

The body-mind-spirit continuum of spirituality resolutely denies the dualistic model of the universe. The traditional western divisions between body *and* soul, earth *and* heaven, secular *and* sacred, human *and* divine, natural *and* supernatural, polarise the world as though they existed alongside each other in unresolved juxtaposition. “Like Descartes’ principal of thought and extension, neither can be reduced to the other” (Robinson 1977, p. 139). Yet neither has the power to unify the other with itself, or to break through to a *coincidence* of opposites, to a higher all-embracing unity. As Robinson (1977, pp, 140-141) argues “God is not *one* of the poles of traditional theism, but transcends these inevitable finite distinctions”. The ‘beyond’ is to be found always and only in the ‘midst’ as a function and dimension of it. As Robinson (1977, p. 79) lyrically expresses it: “This is a shot-silk universe, spirit and matter, inside and outside, divine and human, shimmering like aspects of one reality which cannot be separated or divided”; or as de Chardin (1965, p. 56) more prosaically puts it: “*co-extensive with their Without, there is a Within to things*”. It is submitted that this overcomes the duality without denying the diversity. In the vivid poetic words of Gerard Manley Hopkins (Oxford Dictionary of Quotations 1999, p. 384):

The world is charged with the grandeur of God,  
It will flame out, like shining from shook foil;  
It gathers to a greatness, like the ooze of oil  
Crushed ...

This approach of spirituality reveals an intensely personalistic and relational world in which everything depends on the response of love. It is the ability to take up *evil* into God and transform it that is the most striking, and the most shocking feature of this approach; meaning can be wrested from it even at the cost of crucifixion. But as Dag Hammarskjöld (1964, p. 65) reminds us:

The longest journey  
Is the journey inwards.

Many psychologists operate within the ‘biopsychosocial’ perspective recognising that patients’ problems are multifaceted and have biological, psychological and social aspects (Bakal 1999).

Williams (2006, p. 85) reminds us that Jung and Bion, amongst many others of course, “both thought of religious/mystical experiences, not just as instinctual sublimations or defences, but also as illustrating something central about the nature of psychic reality”. Such psychic reality includes the spiritual and the numinous (see Casement & Tacy 2006). So Sulmasy (2002) has expanded the perspective into the ‘biopsychosocial-spiritual’, which, according to Moss and Dobson (2006, p. 285), “does not take a dualistic approach to mind and body, but proposes that the biological, the psychological, the social and spiritual cannot be disaggregated from the whole. Each factor interacts and affects other aspects of the person”.

So, in this perspective, spirituality has been construed as a person’s sense of meaning, values and life purpose (Daaleman & VandeCreek 2000). Frankl’s experience in the Nazi concentration camps at Auschwitz and Dachau convinced him of the crucial importance of an existential sense of meaning in life, for survival. In 1946 he wrote that “a psychotherapy which not only recognises man’s spirit, but actually starts from it, may be termed *logotherapy*. In this connection *logos* is intended to signify ‘the spiritual’ and, beyond that, ‘the meaning’” (Frankl 1946, 1973, p. xi). In a footnote at this point he makes it clear that ‘spiritual’ does not have a religious connotation but refers to the specifically human dimension.

Brady, Peterman, Fitchett, Mo and Cello (1999) investigated the quality of life of people with a life-threatening diagnosis of HIV or cancer, and found that people with higher levels of spirituality were better able to tolerate increased pain and fatigue. A particularly important finding was that spiritual well-being continued to be a significant predictor of overall quality of life, even when other domains of physical, emotional, social and family well-being were controlled. Another study by Yates, Chalmer, St James, Follansbee and McKegney (1981) with terminally ill cancer patients, also led to the conclusion that individuals who reported belief in a higher power, an afterlife and the value of prayer, indicated lower pain intensity than those who did not hold these spiritual beliefs. The difference occurred despite the fact that both groups were experiencing similar levels of pain, assessed as objectively as possible. So it is reasonable to argue *both* the significance of the body, mind, spirit continuum, *and* that spirituality may give meaning and help to support a person’s sense of self, in such a way that “symptom distress and pain are not the defining features of a person’s overall sense of well-being” (Moss & Dobson 2006, p. 287).

### 2.11.5 Trans-cultural and Ecumenical Spirituality

Ho and Ho (2007) identified two major traditions of spirituality in the west. One is essentially hedonistic, in which the key construct is *well-being*, defined in terms of pleasant emotions and high life satisfaction (Diener, Lucas & Oishi 2002, Kahneman, Diener & Schwartz 1999). The other is essentially a call for living in accordance with one's *true self* or *spirit*, as when actions are congruent with deeply held values, with the resulting experience of being intensely alive and authentic (Ryff & Keyes 1995). This involves valuing suffering, prayer or meditation, altruism and the importance of transformation. It is at this point that correspondences arise with spirituality in the East in terms of freedom from attachment, mindfulness, living in the present moment and enlightenment.

Defining spirituality in terms of ecumenicity and trans-cultural applicability is the main theme of Ho and Ho's article:

By ecumenicity, we mean universality, more than merely transcending denominational or religious boundaries. We mean to identify core values and beliefs common to the world's main philosophical-religious traditions that promise to inform research on spirituality. These values and beliefs include the capacity to forbear, even accept, suffering or misfortune; to forgive; to construct and reconstruct meaning; to maintain peace of mind, spirit and sense of direction, even in the face of misfortune or harsh external circumstances; love of humanity; and so forth. (2007, p. 65)

This is a much broader definition of ecumenical than Richards and Bergin (1997) whose conception of ecumenicity essentially embraces a theistic or even a monotheistic world view as in Islam, Judaism and Christianity. Van Ness (1996) argues the case for including secular spirituality, without which any claim to universality would be incomplete. Kier and Davenport (2004) deplore the lack of understanding research of atheists and agnostics. Professed atheists such as Marx do not reject humanistic, action-orientated spirituality. Are there not many accounts of people of *all* persuasions having spiritual experiences as well as conversions?

In their quest to “measure” spirituality having trans-cultural applicability, Ho and Ho (2007) develop six main strategies:

(1) They include the concept of spiritual emptiness. So, for example, Marx’s (1932/1964) classic statement of alienation is a diagnosis of spiritual emptiness and highlights the universal ideal of justice for all as inseparable from the individual’s quest for meaning. Unfortunately Ho and Ho (2007) do not clearly distinguish this concept of spiritual emptiness from the spiritual virtue of emptiness, defined in Buddhist tradition as *sunyata* denoting a divine stillness, and in the Christian tradition in terms of *kenosis*, as when Christ emptied himself (Philippians 2:5-8).

(2) They extract commonalities of core values and precepts at a high level of abstraction across philosophical/religious traditions. The problem is that with the differences between the Buddhist belief that suffering ceases through selflessness, and the Christian understanding of the reality and redemptive power of the suffering of Christ on the cross, it is only possible to affirm the spiritual value of suffering in both traditions at such a high level of abstraction that it is hardly functional or meaningful in the lives of ordinary people.

(3) They maximise inclusiveness of core values or beliefs from one of the world’s main philosophical-religious traditions provided it is not negated or denied in any other. So, for example, they affirm the important insight that “[u]niversal love is the lodestone of ecumenicity” (Ho & Ho 2007, p. 67). Unfortunately it is very difficult to apply love as the lodestone to Islam, for in the Qur’ân love is described by *mowadda* or *mahabba* and their derivatives. It is used in about 42 instances of God’s love for human beings. But in “about 22 instances, it is used to describe those whom God does not love (transgressors, impious, guilty, disbelievers ... etc.). Quite clearly the text aims at the sinner, and not merely the sin. God’s lack of love is directed at people, and not just what they do” (Clohessy 2008, p. 3).

(4) They clarify constructs and formulate metatheoretical propositions. They enumerate three: (a) Spirituality addresses existential or transcendent questions, such as those concerning the meaning and purpose of life, so may be characterised by doubt and struggle. Transcendence defines one’s relationships and means understanding oneself in a larger context (Ho, Peng, Lai & Chan 2001).

(b) Spirituality belongs to the domain of cardinal values underlying all aspects of life, so is the wellspring from which selfhood and identity grow into maturity. (c) Spirituality is self-reflective, and hence metacognitive, in nature. A self so empowered is what Ho, Chang, Peng and Ng

(2001) term a dialogical self, enabling the spiritual self to be engaged in internal dialogue and thus to participate in its own re-creation.

(5) They recognise transcendent consciousness, achieved through negating the dichotomy between self-as-subject and self-as-object in different ways (Ho 1995, Ho et al. 2001, Paranjpe 1988). Something of this is illustrated in Merton's experience. "In the depths of contemplative prayer there seems to be no division between subject and object and there is no reason to make any statement about God or about oneself. He IS and this reality absorbs everything else" (Merton 1962, p. 266). So Ho and Ho (2007) differentiate levels of transcendent consciousness and their correlates, physiological, psychological and behavioural, which are to some extent measurable.

(6) They acknowledge the significance in spiritual experience of heightened aesthetic sensibilities that are deeply felt but defy verbal description - especially if they are experienced in non-linguistic modalities, visual, kinaesthetic or musical (Begbie 2000 a & b, Lewis 2002, Lipe 2002).

While recognising the value of these strategies for emphasising the importance of spirituality, and by implication the crucial factor of insight in spirituality, it is obvious that there are formidable challenges that they present to "measurement". So Ho and Ho conclude:

We argue for relying more on (a) qualitative, open-ended, experience-near techniques ... personal diaries, phenomenological accounts; (b) nonverbal, expressive measures (e.g. music appreciation, drawings, movement analysis); (c) life histories, clinical or observational data, peer reports by significant others; and (d) videotaped information, narrative analysis, thematic characterisation and coding for content analysis. (2007, pp. 71-72)

In the light of this call for "qualitative, open-ended, experience-near" material, it is important and appropriate to move to the next section, and proceed from meta-theoretical considerations to actual experiences of insight in spirituality.

#### **2.11.6 Four Different Experiences of Insight in Spirituality**

There are a number of problems and inadequacies that have been identified in Ho and Ho's (2007) theoretical approach above, so rather than pursuing that approach to insight in spirituality, it is appropriate to examine four very different but profound experiences of insight in spirituality.

#### **2.11.6.1 An Individual's Experience**

The *first* example is Andrei's experience. His family fled Russia, leaving behind all their possessions, during the Revolution. His father had been part of the Russian Imperial Diplomatic Mission. They were constantly on the move and experienced severe poverty, eventually settling in France. Andrei recollects:

I had no contact with the Church or with the Gospels til I was fifteen years old ... nothing drew me to God. I discovered a wonderful method to prevent myself ever being in Church. I was taken there once a year, on Good Friday, and I discovered at once that if I inhaled the incense and then held my breath, I fainted, and was immediately taken outside. I used this method for several years, and then they got tired of taking me ... There was a time when émigré children were offered places in Catholic schools on condition that they became Catholic, and this put me off not only from Catholicism but from God Himself. (Bloom 2005, p. 115)

Andrei became a member of a Russian national youth organisation, which was on one occasion to be addressed by a priest. Andrei tried to "get away as far as possible from the all-seeing eye" but was told that despite his hostility he had to show loyalty, rather than bring disgrace on the organisation. Privately, Andrei's teacher told him "you don't need to listen, just go in and sit down". He thought he could do that, but records:

It was difficult not to listen because ... the priest spoke too loudly, interfering with one's thoughts ... what he said to us made me so deeply angry, and brought on such indignation, that when he had finished I did not even contemplate staying with my friends, and decided immediately to try and find out if Christ was indeed what he [the priest] said he was, and whether Christianity was indeed that disgusting, loathsome, horrible thing, which he had described to us. I went home with a deep feeling of hatred towards everything. At home I asked my mother whether we had a copy of the Gospels, and she gave one to me. I went to my corner and, not expecting anything good to come from the Gospels, I decided to choose the shortest – so I began to read the Gospel according to Mark. I cannot explain to you

what happened at this point. Anyone who knows will understand, and anyone who does not know will not understand anyway. It happened that, between the first and the third chapter of the Gospel according to Mark, it became absolutely and concretely clear to me, that at the other side of the table at which I sat reading, stood the living Christ (Bloom 2005, pp. 116-117).

As he read on Andrei was distressed by the way the religious authorities plotted against Jesus and gasped at the way His own disciples betrayed and denied Him. Andrei wept as he read about Jesus being flogged and crucified, yet all the time he knew this was not the end, because although he didn't know about the *doctrine* of the resurrection, he was *experiencing* the reality of the presence of the living Christ with him in the room.

After training as a doctor at the Sorbonne, Andrei was ordained priest in 1948 and was made Archbishop and Metropolitan Anthony of Sourozh in 1962. Because he felt "it is always awkward and even absurd to talk about oneself. I never spoke of it until two years ago", that is 1964 (in Bloom 2005, pp. 114-115). "It is simply a fact of my life, and what happened then has stayed with me to this day: an absolutely clear awareness that Christ is here, more real than this platform or anything else" (Bloom 2005, p. 117).

Metropolitan Anthony became one of the most sought after spiritual guides in the Western world as well as in Russian Orthodox circles, and wrote extremely influential books on prayer (Bloom 1966, 1973). His life and inspiration to others provide strong evidence that the importance and significance of a sudden and enduring spiritual insight does not depend on the ability to *explain* it, but on its *effect*.

#### **2.11.6.2 Dialoguing for Spiritual Insight**

A *second* example is from a Buddhist-Christian dialogue on the spiritual life held in July 1996, in which one of the major themes treated was that of suffering and compassion. One of the Cistercian monks told the story of the seven Cistercian monks who had been killed, just two months before, by a militant group of Muslim fundamentalists in Algeria. The tragedy, highlighted by the media, had touched people around the world and was still very fresh in the

hearts and minds of the participants in the dialogue, but raised very different reactions among Buddhists and Christians (Pierce 2005).

A highly respected Buddhist participant said:

When I heard about your Algerian martyrs, I had a question about certain themes in Christianity – martyrdom, sacrifice, tragedy and transformation ... I can understand the personal transformation that the Algerian monks went through in deciding to stay [in Algeria, despite previous threats of death], but my question is how did their staying express compassion for the aggressors who, from a Buddhist point of view, will reap the karma for lifetimes for murdering them? I find it very disturbing and troubling from a Buddhist point of view because compassion seems to be missing. (Mitchell & Wiseman 1997, p. 231)

A journalist who was present and remembers this particular exchange caught the response: “[f]or a shocked moment the Catholics looked blankly at one another, uncertain how to address this questioning of martyrdom, the supreme Christian gesture” (Johnson 2003, p. 19). To Christian ears familiar with the words of Jesus, “Love one another as I have loved you. No one has greater love than this, to lay down one’s life for one’s friends” (John 15:12-13), to hear “compassion seems to be missing” sounds baffling ... but almost always being baffled is a prerequisite for deeper insight.

After an agonising moment one of the Christian monks responded: “[The monks] did not desire to be killed. They desired to live and loved life”, and later added “Christ saved us by His life, not by His death. But His death is part of His life” (Mitchell & Wiseman 1997, p. 232).

Christianity’s emphasis on love prompted the community of monks to stay in a war torn country as a gesture of loving solidarity with all their neighbours who were suffering, rather than abandon them in their time of need. What perhaps was not a sufficient part of their discernment, was that Buddhism’s emphasis on the struggle to be free from suffering implies that any action that might allow suffering to happen, as in this case of the karmic effects of a murderer’s actions, will be avoided at all costs. This is not easy to understand and appreciate from a Christian perspective; it requires profoundly empathic insight. It is not a question of *judging* and labelling one “right” and the other “wrong”. What is vitally important for true *insight*, “is that we listen

deeply to one another and attempt to understand one another's spiritual motivations for, and consequences of, acting in one way or the other. Growing in mutual understanding is already a step towards healing and peace for our world" (Pierce 2005, p. 139).

Both Buddhism and Christianity break through the antagonism and demonisation of the *other* that separates us from our enemies. "Love your enemies, do good to those who hate you, bless those that curse you, pray for those who abuse you" (Luke 6:27-28). It is a call to a total transformation of body-mind-spirit in terms of spiritual insight and compassion. The Dalai Lama shrewdly comments:

We have an attitude of distance from people we consider as unfriendly or enemies and a disproportionate sense of closeness or attachment towards those whom we consider to be our friends ... until we overcome these prejudices we have no possibility of generating genuine compassion. (1996, p. 67)

Eckhart, the fourteenth century mystic, echoes a similar sentiment: "You must love all equally, respect and regard them equally...in the love that one gives there is no duality" (Walshe 1979, p. 110). Nhat Hanh (1995, p. 78) shows how the practice of *mindful seeing* leads to compassion: "When you look deeply into your anger, you will see that the person you call your enemy is also suffering". There are few insights that are more important than this for the conflict and violence that grips our world and indeed this country, South Africa.

Fr. Christian, the prior of the Algerian community and one of the seven monks killed, addressed his would-be assassin with these remarkable words:

And also you, the friend of my final moment, who would not be aware of what you are doing, yes I also say this *thank you* and this *A-Dieu* to you *in whom I see the face of God*. (Mitchell & Wiseman 1997, p. 133)

Insight never gives 20:20 vision of the total situation; humility, *mindful seeing* leading to compassion, and honest dialogue are required for inter-faith understanding, but to see the face of God in your murderer is surely a profound spiritual insight, involving body-mind-spirit.

### 2.11.6.3 A Theologian's Experience of Insight through Music

The *third* example is taken from the experience of an academic theologian and musician, the director of a project entitled 'Theology Through the Arts', at Cambridge University (Begbie 2000a).

One of the classic and most famous statements of the early Church came from the Council of Chalcedon (AD 451), referring to the relationship between the divine and human in Jesus Christ. The intention was to affirm that He was fully human and fully divine without either being compromised. The key phrases are "made known in two *natures* without *confusion*, without *change*, without *division*, without *separation*" (italics added). It sounds a bit like a theological teaser or riddle. Begbie (2000b, p. 140) comments that "the overall impression given is somewhat static: two 'natures' – divine and human - sitting rather uneasily alongside each other, awkwardly juxtaposed in a single individual".

It is easy to fall into a form of dualism, assuming that God and humanity are essentially incompatible with one another. On a popular and personal level it is sometimes expressed in the fear that the *more* God is active among us, the *less* room we will have to be ourselves.

As a musician Begbie has acute insight into the difference between the spatial and visual world on the one hand, and the acoustic world, revealed particularly by music, on the other:

If I play a note on the piano – say middle C – the note fills the whole of my heard 'space'. I cannot identify some zone where the note is and somewhere it is not ... if I play a second note – say, the E above middle C – along with middle C, that second note also fills the whole of my heard space. Yet I hear it as distinct. The notes 'interpenetrate', occupy the same 'space' but I hear them as two notes ... Suppose I play middle C and open up the string an octave above by silently depressing the appropriate key. The upper string will start vibrating even though it has not been struck. The lower string 'sets off' the upper. And the *more* the lower string sounds, the more the upper string sounds in its distinctiveness ... the lower string enhances, brings to life the upper string, frees it to be itself, neither compromising its own integrity not that of the upper string. Moreover, when

certain other strings are opened up alongside both these strings, they too will vibrate in sympathy. (2000b, pp. 144-146)

For Begbie this gives us valuable insight into the way God may interact with the world intimately, without violating it or merging with it, but liberating it to be more fully itself. Similarly, God's involvement with our lives neither pushes us out nor swallows us up, nor leads to some kind of fusion. God is active in a much more creative way; God's intimate interaction with us as human beings, is to free us to 'sound' as we were created to sound, enabling us to be more fully ourselves; "not de-humanised but re-humanised" (Begbie 2000b, p. 147). So in the person of Jesus Christ, "we witness the closest interaction of divine space and human space ('without division, without separation') without either being compromised ('without confusion, without change')" (Begbie 2000b, p. 147).

The purpose of including this example of insight is not to indulge in Christian apologetics, nor to 'explain away' mystery. The purpose is six-fold:

- (1) It illustrates the importance of 'restructuring', in this case from visual to acoustic space, the *sine qua non* of insight in gestalt psychology.
- (2) It exemplifies the way in which the experience of insight is so often an interdisciplinary one, in which analogical thinking is particularly valuable.
- (3) It demonstrates both how easily a false dualism is set up, here in terms of the apparent incompatibility of the human and divine and how insight can enable us to see, or rather in this case to hear, how that limited understanding may be transcended or resolved.
- (4) It makes plain the difference between cognitive understanding and musical appreciation; four voices speaking words at the same time can sound rather confusing, whereas four voices singing together can be completely clear and enhance one another with harmony and beauty.
- (5) It is important to acknowledge the place of music in spiritual experience, and of heightened aesthetic sensibilities that are deeply felt, but often defy adequate verbal expression.
- (6) Finally, it throws some light upon the way that insight in spirituality is not intended to 'explain away' the mystery or dilute the sense of awe, but is rather to preserve, and often to clarify, deepen and so enhance the beauty and wonder of the mystery as credible and worthy of reverence.

#### 2.11.6.4 *Ubuntu*: A Crucial Insight in African Spirituality

The *fourth*, and final example, is taken from the Truth and Reconciliation Commission's (TRC) work in South Africa. It is one story out of hundreds that could be cited. It involves an apartheid sponsored covert murder operation.

Seven young black activists, who had been trained by Vlakplaas *askaris* (guerrillas who secretly changed loyalties and spied for the South African Police Force) in the use of fire-arms and explosives, were lured into a trap in Gugulethu in the Western Cape where they were all killed by the Security Police on 3<sup>rd</sup> March 1986. Some were shot in the head while surrendering with their hands up. Russian hand grenades and guns were placed on their dead bodies before a TV news crew of the state broadcaster, (SABC), was called to document the killing of the "terrorists". At the TRC hearing a video was shown of the scene of the killing. In reaction to seeing her dead brother's mutilated body, a sister of one of victims threw a shoe in the direction of the thirteen policemen who had been subpoenaed for questioning. They all walked out in protest, threatening not to return to the hearings as their lives were "in danger" (Gobodo-Madikizela 2003, p. 172).

In contrast one of the black perpetrators, the *askari* Mbele, requested a private meeting with the mothers of the Gugulethu Seven, with a view to asking for forgiveness. One of the mothers responded: "We still have this big lump in our throats. If ... they can be put here in front of us, maybe that lump can go away" (Mrs Ngewu). So the emotionally charged meeting between one of the killers and the mothers of those who died was arranged and facilitated by the Human Rights Committee Member, heading up the hearing process in the Western Cape, Pumla Gobodo-Madikizela. Initially it was very tense; several mothers expressed their pain, anger and refusal to entertain the perpetrator's request. Then one of the mothers, Mrs Cynthia Ngewu, haltingly said:

This thing called reconciliation ... if I am understanding it correctly ... if it means this perpetrator, this man who has killed Christopher Piet, if it means he becomes human again, this man, so that I, so that all of us, get our humanity back ... then I agree, then I support it all. (Krog 1998, p. 109, translated from the Xhosa)

As Krog (2008a, p. 4) comments: “It affirms how somebody, who would be regarded by many as not effectively literate, let alone schooled in African philosophy, intimately understood her interconnectedness and could formulate it succinctly”. She adds “it was only years later that I realised what a perfect formulation these halting words provide for the term interconnectedness-towards-wholeness or ubuntu” (Krog 2008b, p. 213). What Cynthia Ngewu says is astonishing:

First, she makes it clear that she understands that the killer of her child could kill, because he has lost his humanity, he is no longer human. Second, she understands that to forgive him would open up the possibility for him to regain his humanity. Third, she understands that the loss of her son affected her own humanity; she herself has now an affected humanity. Fourth and most importantly, she understands that if indeed the perpetrator feels himself driven by her forgiveness to regain his humanity, then it would open up for her the possibility to become fully human again.

This is a statement of remarkable insight. (Krog 2008b, p. 213)

All this is also in sharp contrast to the distorted Christian understanding of forgiveness, so common under ‘privatised’ apartheid expressions of faith denying human implications and consequences. It is succinctly expressed by General Tienie Groenewald who refused to appear before the TRC, saying in a radio interview: “This is between God and myself. I have nothing to say to Tutu” (Krog 1998, p. 17). Tutu responded, expressing both true Christian and *ubuntu* understanding of interconnectedness: “If you beat your wife, you can’t simply say this is between me and God. You also have to go to your wife and say: I’m sorry” (Krog 2008c, p. 357).

*Ubuntu* forgiveness says: I forgive you so that you can start to change/heal/recover humanity, then we can walk our interconnected paths towards healing and wholeness. It is, of course, difficult for those of us who are ‘white’ Africans, whose early formation has been primarily influenced by a western world view, to have more than a theoretical *understanding* of the interconnectedness-towards-wholeness of *ubuntu*. But two significant insights flow from this.

The first insight, as Krog points out (2008a, p. 25), is that “an alternative way of dealing with a crime against humanity has been put forward. It is not necessarily a *better* way than the post-holocaust way, but it is a *different* way”. The Nürnberg Trials essentially embodied retributive

rather than restorative justice. The essence of *ubuntu* spirituality is restorative. It is an authentic African way of becoming and being human. In the TRC process Christian vocabulary and a human rights culture are in danger of obscuring the fact that “a radically new way of dealing with gross injustice and cycles of violence had been put on the table by the indigenous inhabitants of South Africa” (Krog 2008a, p. 25).

The second important insight, mentioned by Krog (2008a, p. 26) would be evident in “the way we read the current anger and frustration of victims that seemed to have forgiven during the TRC process itself. Their anger is used as proof that the TRC pressurised them ... to forgive and in so doing suppressed their anger”. Krog argues:

The anger that people display today about the TRC process, is not purely and simply a sign that they had been intimidated by Tutu or the Christian redemptive ethos. It is, again, a sign that in terms of *ubuntu*, they feel that the perpetrators had simply washed their hands at the forgiveness and now continue as unperturbed as before. In other words: they DID forgive, but NOW that no sign of change is expressed, they are angry. The current swell of TRC resentment has more to do with thwarted *ubuntu* beliefs NOW, than with the use of Christianity to suppress anger THEN. (2008a, p. 26)

Perhaps that last line should read “*abuse* of Christianity to suppress anger THEN”. From my own experience of *giving* evidence to the TRC and *receiving* confessions relating to the burning and murders in Crossroads and KTC in May and June 1986, I regard Krog’s insight as very important. It is also significant that Anjtie Krog is a poet of great sensitivity, spirituality and feeling, who has a close working relationship with African linguists at the University of the Western Cape; empathy is a very frequent, perhaps essential, component of insight.

This African spirituality, known as *ubuntu*, is expressed in the condensed insight of the Xhosa proverb “*ubuntu* ungammntu ngabanye abantu” which translates roughly as “a person is (or becomes) a person through other persons”. Therefore this interconnectedness-towards-wholeness opens the potential for insight into a rich indigenous African *authentic way of becoming and being human*.

It is generally accepted that this spirituality, under-girding solidarity in resistance, proved fundamental to the success of the struggle for justice against apartheid. Krog (2008d, p. 2) goes

further and argues that “this world view played THE major role in making the TRC possible and guiding the execution of its mandate”. In addition this interconnectedness-towards-wholeness “not only enabled the TRC to do its work without incidences of revenge, but also imbued politically trapped concepts with new possibilities” (Krog 2008c, p. 1).

The South African TRC is credited for being “the first such Commission to: hold victim hearings in public; individualise amnesty [so that people could admit that they had done wrong] and allow victims fighting against and for apartheid to testify on the same forum” (Krog 2008d, p. 12).

There is a single crucial insight underlying all three of these innovations. That insight “can be traced back to attempts to restore the interconnectedness of a community” (Krog 2008d, p. 12). So it is clear, as Krog (2008a, p. 6) argues, that “*ubuntu* was not simply a wrapping of the TRC process, but in fact the *foundation* of it”.

### **2.11.7 An Evaluation of the Contribution of the Mind-Body-Spirit Approach of Spirituality**

As in previous evaluations, the strengths of the approach of spirituality for the understanding will first be considered and then the weaknesses will be enumerated.

#### *The Strengths*

Eight aspects of the strengths of the approach of spirituality to insight are worthy of consideration:

(1) The fact that this body-mind-spirit continuum of spirituality is a non-dualistic approach is of fundamental importance for at least three reasons. *Firstly*, because the ‘Aha!’ experience of insight itself is non-dualistic. Merton (1962,1985) describes it as an experience of ‘oneness’ and Nhat Hanh (1995) as ‘interbeing’. *Secondly*, because a number of other approaches, such as cognitive psychology, representational models, and the approach of great minds experiencing insight, have a tendency to emphasise the intellectual component, at the expense of body and spirit, in the experience of insight. *Thirdly*, because this approach of spirituality involves the call and invitation to live in accordance with the person’s true self, or spirit, it promotes a holistic

sense of aliveness, authenticity and awareness which is arguably, (see also point 5), conducive to experiencing insight.

(2) This approach of spirituality, defined as a person's sense of meaning, values and purpose in life, is more accessible, more experience-near and therefore more inclusive of the ordinary person's experience of insight than several other approaches. This is evident in the remarkable expression of Cynthia Ngewu's insight in the TRC process (**2.11.6.4**) and the opportunity it provides for broadening and deepening the understanding of insight. It is very different from the Western tendency to individualise and intellectualise conceptions of insight. It is also noteworthy that spirituality is universal in the sense that it is central to all philosophical-religious traditions that have informed conceptions of the good life, since ancient times, the world over.

(3) This approach of spirituality extends the depth and breadth of human experience beyond the biological, psychological and sociological framework, into transpersonal and transcendent consciousness. Spirituality is acutely aware of different levels of transcendent consciousness. Without this dimension it is not possible to begin to appreciate, let alone understand, the sudden and sustained experience of insight of Andrei, to whom "it became absolutely and concretely clear...that at the other side of the table at which I sat reading, stood the living Christ" (**2.11.6.1**).

(4) This mind-body-spirit continuum approach of spirituality at its best emphasises the cardinal value of respect or reverence for the *other*; whether it be physical status, intellectual ability, religious traditions, human values, different interpretations, and even in the face of an inability to understand or empathise. This respect and reverence of the *other* is expressed in the Buddhist-Christian dialogue in **2.11.6.2**. It is supremely illustrated in the astonishing spiritual insight involving mind-body-spirit, expressed in the words of the Prior of the Algerian community of monks, who addressed his would-be assassin as "the friend of my final moment, who would not be aware of what you are doing, yes I also say this *thank you* and this *A-Dieu* to you *in whom I see the face of God*" (Mitchell & Wiseman 1997, p. 133). As in section **2.11.6.2**.

(5) This approach of spirituality to insight is under-girded *firstly* by regular individual disciplines, such as mindfulness meditation (e.g. Cane 2000, Kabat-Zinn 1991,1994, Nairn 1998, Thynn 1995), prayer and contemplation (e.g. Arico 2002, Gibbard 1976, Green 1982, Johnson 1974, Merton 1985), breathing as an aid to living in the present moment (e.g. Kabat-Zinn 1994, Nairn 1998), recognising the connection between darkness and spiritual growth (e.g. May 2004) and visualisation (e.g. Cane 2000). *Secondly* by occasional shared activities such as inter-faith

dialogue (e.g. Nhat Hanh 1995, Pierce 2005), groups for centring prayer (e.g. Bloom 1966, Bryant 1978, Gibbard 1976, Green 1979, Keating 1994), spiritual direction (e.g. Dyckman & Carroll 1981), contextualised spirituality (e.g. Ackermann 2003, Elliott 1985, Merton 1985, Nolan 2006), imagery in movement and dance (e.g. Schneier 1989) and storytelling stimulating imagination and faith (e.g. Bausch 1984). *Thirdly* spirituality is under-girded by cherishing values such as seeking enlightenment and compassion (e.g. Goldstein 1976), a sense of mystery, awe and wonder (e.g. Matthews 2000, Otto 1923/1958, Suggit 2007), intuition and imagination (Myss 1997). These disciplines enable documented medical evidence (e.g. Kabat-Zinn 1991) of physical alertness, mental awareness, reduced anxiety and empathic acceptance which support a healthy sense of self-worth in empowering spiritual insight.

(6) The methodological implication of including the concept of spiritual emptiness (Ho & Ho 2007) involves using construct pairs (e.g. Existential quest versus Alienation, Transcendence versus Self-encapsulation). This is valuable for ensuring that spirituality is contextualised and applied to such vital issues as justice, poverty, violence and so forth, which are in fact inseparable from the individual's quest for meaning. Including the concept of spiritual emptiness and ensuring that spirituality is contextualised and applied in this way, may also serve to enable Westerners to discover an appreciation and fuller acceptance of the spirituality of African *ubuntu* (Section 2.11.6.4).

(7) The approach of spirituality to insight enables a better appreciation of heightened aesthetic experience of goodness, truth and beauty than any of the other eight approaches to insight that have been explored. This aesthetic appreciation is not limited solely to the arts, but is often part of the experience of scientists *both* in the elegance, simplicity or beauty of a theory *and* in the sense of wonder of what is revealed in a discovery. For example President Clinton, in announcing and paying tribute to the extraordinary scientific feat of the completion of the first draft of the Human Genome project of over three billion letters in length, in the year 2000, adds “[t]oday we are learning the language in which God created life. We are gaining evermore awe for the complexity, the beauty, and the wonder of God’s most divine and sacred gift” (Collins 2006, p. 2). The scientist who headed up the project comments that it is “awe inspiring to realise that we have caught the first glimpse of our own instruction book, previously known only to God” (Collins 2006, p. 3).

(8) The approach of spirituality to the appreciation of music itself, as in Begbie's insight in section 2.11.6.3 for example, can have a particular fascination for mathematicians in its structuring of time as argued convincingly by Begbie (2000a). At the same time it is equally clear that music appeals to, and sometimes inspires insight in a huge variety of people precisely because of the way it communicates to the mind-body-spirit continuum, which is the defining characteristic of this approach to insight.

(9) The significance of faith in true spirituality is described by Tillich (1979, p. 167) as "the state of being grasped by the power of being itself". This is a non-dualistic understanding of faith since "Non-being belongs to being, it cannot be separated from it" (Tillich 1979, p. 171), in which: "the Yes includes itself and the No which it takes into itself" (Tillich 1979, p. 175). Tillich's (1979, p. 183) striking conclusion in defining God as "being itself" is "*the courage to be is rooted in the God who appears when God has disappeared in the anxiety of doubt*".

#### *The Weaknesses*

Three potential weaknesses of spirituality for insight will be noted:

(1) One tradition of spirituality in the West, according to the analysis of Ho and Ho (2007), is essentially hedonistic, in which the key construct is *well-being*, defined in terms of pleasant emotions and high life satisfaction. This often involves a process of minimising the value of doubt, struggle and suffering. It is perhaps the shadow side of the New Age Movement. This type of spirituality is usually bankrupt in terms of genuine insight because it does not support the acceptance of doubt, the struggle to stay with unresolved issues, and the willingness to suffer for true understanding; all of which may be necessary for insight.

(2) Another related weakness of spirituality is when it becomes a privatised, pietistic, self-absorbed exercise, unrelated to and de-contextualised from social, political or economic issues and a fundamental concern about justice for all. In South Africa this was a major challenge for churches, synagogues and mosques under apartheid, and continues to be a key issue under the African National Congress government today. A constructive and critical conscience arising from a high level of engaged consciousness, insightful comment and courageous non-violent direct action, appears to be in short supply, apart from lone figures like Archbishop Emeritus Desmond Tutu. In his case it comes from a lifetime of many hours of both 'centred' and 'contextualised' prayer every day.

(3) Sadly, a final weakness has to be mentioned. It is the tendency by an element in most religions towards fundamentalism and even fanaticism, which may involve violence in words and deeds, extinguishing all insight except that governed by their ideology. In terms of spirituality as distinguished from religion, in section 2.11.3, this tendency is limited because of the propensity towards humility, contemplation, non-violence and self-reflection.

## **2.12 A Summary of the Significance of Each Approach for this Study**

At this point of the literature review, in terms of this study of the *experience of insight*, it is both appropriate and necessary to focus more specifically on a summary of the positive contributions of each approach for the understanding of the experience of insight.

### **2.12.1 The Significance of the Holistic Approach of Gestalt Psychology**

It will be essential that the methodology adopted for exploring the instantly recognisable gestalt of insight, illustrated in terms of *Frère Jacques* and *Three Blind Mice*, is able to do justice to this characteristic feature of the *structure* of the experience of insight. This will be addressed in Chapter 3 on the methodology.

### **2.12.2 The Significance of the Existential Approach of Phenomenology**

Despite the omission of this approach from Sternberg and Davidson's distinguished collection of scholars investigating *The Nature of Insight* (1995), it is arguable that this approach specifically has the capacity to do justice to the *structure* of the gestalt experience of insight, and also values the importance of philosophical underpinnings and understanding of *being*, as well as *experience*. The experience of insight cannot be understood just as a mechanism, but only on the deeper level of the insightful self, sponsoring meaning as partner to the formation of meaning in an existential space of possibility. So this approach particularly values psychological descriptions that are near and faithful to the experience of insight.

The criteria for exploring such descriptions has been examined and enriched by a number of details in the representational approach of models of insight (2.7) and also in the case-study

approach of great minds experiencing insight (2.8). Chapter 3, on the methodology, provides further evidence for the approach of existential phenomenology as the most appropriate methodology for this particular study.

So the main body of the original research in this thesis will focus on the richly detailed descriptions, by the four research participants, of their experiences of insight in Chapters 4 and 5, with particular reference to the *holistic structure* of their experience (4.7, 5.3.2, 5.4.2, 5.5.2).

### **2.12.3 The Significance of the Puzzle-Problem Approach of Cognitive Psychology**

The breadth and detail of research work on specific areas and components of cognitive functioning in insight has contributed a number of significant theories, models and metaphors for insight. There is also increasing recognition of affective and behavioural aspects and the possibility exists for fruitful cooperation with neurobiological research; yet three factors severely limit the value of this approach for this particular study in terms of appreciating the holistic and human experience of insight. *Firstly*, focus on the mechanism rather than the person and the meaning of the insight. *Secondly*, laboratory studies divorced from life-world experiences frequently resulting in comparatively trivial experiences of insight. *Thirdly*, lack of clarity and agreement about what constitutes an insight problem.

### **2.12.4 The Significance of the Creative Approach of Genius, Dreams, Design and Invention**

This approach to the experience of insight has the advantage of being open to, and inclusive of, the experience of most people even when they would hesitate to describe themselves as ‘creative’. It is also of significance for this study, that the ‘impact’ and ‘interpretation’ of a dream, or dreamlike experience, may include not only visual images, but also auditory experiences as well as involving powerful affective responses requiring empathic interpretation. So it is essential that the methodology employed is capable of encompassing all these different modalities. Hence the significance as seen of the existential-phenomenological approach and the inclusion of the inter-subjective approach of psychotherapy and the body-mind-spirit approach of spirituality to the experience of insight which is clearly *not* a purely cognitive phenomenon.

### **2.12.5 The Significance of the Representational Approach of Models**

This approach includes not just the isolated individual's mental processes, but also the social, cultural and environmental influences as well as the element of chance in the experience of insight. It is recognised that socio-political and cultural factors are going to be particularly significant for all three of the South African research participants. Gruber's (1995) evolving systems approach demonstrates that insights, whether small steps or great leaps, are part of a coherent life expressing organised affect and purpose as well as organisation of knowledge. This is also highly relevant for this study, as is Gruber's (1995, p. 400) significant conclusion that: "insights express and are part of the functioning of the creative system rather than its rupture". This corresponds at a deep level with the existential-phenomenological approach and the methodology developed by Giorgi (1975 and further developed in 1983, 1985, 1989a, 1989b, 1994, 2003, 2004), for the investigation of experience from a psychological perspective (see Chapter 3), and is particularly important in the light of the tendency to isolate startling phenomena like insight, as well as cognitive psychology's tendency to separate processes.

### **2.12.6 The Significance of the Approach of Great Minds and Dedicated Lives**

This approach reveals the value of detailed descriptions of actual experiences of insight which is the *sine qua non* of the existential-phenomenological approach. It also underlines the significance of Gruber's (1995) evolving systems approach, integrating the organisation of knowledge, purpose and affect in the many moments of insight in a creative life. In this way, the inner temporal structure of the experience of insight may be revealed, and the connection of its multiple relations with other processes clarified, resulting in a more coherent, holistic, contextual and structural understanding of the experience of insight.

In the lives of these 'great minds', there is a concentration of energy, a focused sense of purpose and a dedication not just of thought, feeling and behaviour, but often of life itself to the chosen issues. The result is not just a great mind but a dedicated life which is an expression of, a cooperation with, and an *indirect direction* of semi-conscious and even unconscious processes applied to problems in parallel with, and eventually in concert with, conscious processes, resulting in substantial and significant insights, as well as many small insights along the way.

This approach of great minds and dedicated lives also influenced the choice of research participants chosen for this study (see 5.2), as it seemed worthwhile to include significant experiences of insight which have had substantial results in scientific and socio-political fields, as well as more everyday experiences of insight in personal and professional life, in order to explicate their essential situated structures and examine whether there are essential structural differences between significant insights and the smaller insights along the way.

### **2.12.7 The Significance of the Approach of Metaphors-of-Mind**

Metaphors and analogies may usefully serve as a guide for elucidating the elusive nature of insight. Indeed it may well be that analogy is the core of cognition as Hofstadter (2000) has argued. Certainly at the current stage of insight research, which lacks natural scientific rigour, analogies focussing on deeper and more structural features of insight are particularly valuable, and may contribute towards a fuller human scientific understanding of insight.

In life-world situations these more profound structural features are also more common, compared with psychology experiments, in which subjects tend to focus on more superficial features (Dunbar 2000). This finding is both significant and encouraging for the use that will be made in this research of the detailed descriptions of the research participant's life-world experiences of insight. It is also highly relevant with respect to the question of what methodology is employed. It is significant that the existential-phenomenological approach developed by Giorgi (see Chapter 3) seeks to elucidate and explicate precisely these *structural* features of the gestalt of the experience; in this case, of insight.

The metaphor of haptic or 'touching' sight for insight, suggests a more intimate way of seeing things, and is a valuable way of critiquing the prevailing Cartesian myth of a detached, disembodied and unitary way of seeing things. This may prove particularly important in sensitively and empathically exploring the research participants' personal experiences of insight.

The evolutionary model, currently conceived as much smarter than Darwin imagined, is particularly fruitful as a metaphor for insight in which "[a]ctual moments of human insight are conceived as the tips of a much larger iceberg of insightfulness" (Perkins 1995, p. 527); a

metaphor delightfully suggestive of the connection between the *experience* of insight, and the underlying conscious and unconscious *processes* of insightfulness. So this study needs to be approached with appropriate humility. It is important to explore and expand consciousness as far as possible; but we see tips of the iceberg, not the whole.

### **2.12.8 The Significance of the Inter-subjective Approach of Psychotherapy**

There is a substantial body of literature in this approach to insight which is potentially very valuable. But it is important to recognise that the use of the term “insight” has changed because the basic premises of the psychoanalytic frame has moved from a more intrapsychic model to a relational model incorporating object relations thinking and the analytic third (e.g. Ogden 1994). It is in this context that it is possible to consider *insight* in terms of intuitive thinking and awareness (the art of psychotherapy) as opposed to purely interpreting and applying psychoanalytic theory (the science of psychotherapy), because inter-subjective space creates ‘clues’, ‘links’ and opportunities for insight which could not have occurred in isolation.

Although only one of the research participants was in a therapeutic relationship, the significance of this approach is not limited to helping to understand the experience of that one person, since free association, relaxed reflection and implicit knowledge, which help to ‘soften’ fixed links, patterns and organisation of conscious mental activity, may occur outside of the therapeutic relationship and open up opportunities for fresh and intuitive thinking, awareness and insight. So for example Feldman’s recurring dream remained opaque to him because he was fixed in the idea that it was an internal neurophysical metaphor. In the shower, in a flash of insight, he exclaimed: “The ride is not inside, it’s outside” (section 2.6.2). Although he was alone in the shower at the time there are clear inter-subjective influences in terms of his relationship with Gruber the previous day, and it was to Gruber that he rushed straight from the shower to share his insight.

Self-insight is usually related to finding meaning and making sense of the person’s own life and frequently involves an increased awareness of hidden feeling, wishes, defences, comprises and conflicts, but, again as Feldman’s dream and insight reveal, this is not invariably so; it points to “being as possibility”, as Todres (2002, p. 9) expresses it, and links parts into wholes.

In terms of sensitively obtaining and faithfully interrogating the first-person description of an experience of insight, this inter-subjective approach of psychotherapy is of particular value for explicating all forms and experiences of insight; not just self-insight with which psychotherapy is usually associated. The lack of this approach together with the oversight of the contribution of the existential approach of phenomenology, is in this researcher's view, a significant and serious omission in the otherwise remarkably comprehensive work of *The Nature of Insight* (Sternberg & Davidson 1995).

### **2.12.9 The Significance of the Body-Mind-Spirit Continuum Approach of Spirituality**

It is not so surprising that the body-mind-spirit continuum approach of spirituality to the experience of insight is also lacking amongst the distinguished contributions of many of the most significant researchers in the field of insight, for example those represented in the influential volume of Sternberg and Davidson (1995). In the foreword, Metcalfe (1995, p. x) writes, "the persistent lack of a mechanism for insight, linked with the charge that the notion of insight is somehow supernatural, has shackled researchers who would explore this most important of cognitive processes".

Introducing the body-mind-spirit continuum approach of spirituality to insight is *not* a direct claim that "insight is somehow supernatural" as a *deus ex machina* substitute for the mechanism of insight. It *is* a plea for openness to experience; it *is* an appeal to the body-mind-spirit continuum rather than a purely cognitive process; it *is* an invitation to recognise the place of spirituality, defined as a person's sense of meaning, values and purpose in life, enabling or inhibiting the experience of insight.

The famous Afrikaans poet, NP van Wyk Louw (1962, p. 12), expressed this pertinently and poetically:

My brein die kry die waan,  
Dat ek, omdat ek altyd sirkels sien,  
Die sfeer-self kan verstaan.

This is translated by CN van der Merwe (2008, p. 173) as:

My brain is deluded –  
Finding circles everywhere,

I believe I comprehend the sphere itself.

It is very natural to discover “circles”; that is meaningful patterns. Such patterns are essential guides through the complexities of life. The analogy of Schooler et al. (1995) relating insight to recognising patterns or out-of-focus pictures is highly relevant here (2.9.5). The problem arises when, in arrogance, the “circle” is mistaken for the “sphere” and the conclusion is drawn that the *whole* meaning of human experience has been grasped. It is easy to overlook the fact that the “sphere” has an extra dimension to it, beyond the proof of natural science. This confusion between “circles” and “spheres” is particularly problematic when relative truth is either not recognised as such or is credited with an absolute value, as van der Merwe (2008, p. 174) comments: “The pattern created by the intellect so easily destroys the charity of the heart”.

The fact that this body-mind-spirit continuum of spirituality is a non-dualistic approach to insight is of fundamental importance; firstly, because the ‘Aha!’ experience of insight is itself non-dualistic; secondly, because a number of the other approaches have a tendency to emphasise one component at the expense of the others, so this continuum, with an emphasis on spirit, acts as a corrective balance; thirdly, because this approach involves the call and invitation to live in accordance with the person’s true self or spirit, such authenticity and awareness is arguably conducive to experiencing insight.

The approach of spirituality, defined as a person’s sense of meaning, values and purpose in life, makes it more universally accessible than a particular religion, and more experience-near than several other approaches. So this approach will be essential for an adequate understanding of all the research participants and arguably a *sine qua non* for two of the four, precisely because it extends the depth and breadth of human experience beyond the biological, psychological and sociological framework, into transpersonal and transcendent consciousness, illustrated by the difference between visual and acoustic *space* (2.11.5.2). Without this transpersonal and transcendent *space* from which, Valle argues, our “felt sense emerges, ... a noumenal, unitive *space* within which the phenomenal world and intentional consciousness manifest” (Valle & Halling 1989, pp. 258-9), it is not possible to appreciate or begin to understand the sudden and sustained experience of insight of Andrei, of the presence of the living Christ (2.11.6.1). For the same reason it would not be possible to begin to understand the Prior of the Algerian Community

of monks addressing his would-be assassin as “the friend of my final moment ... in whom I see the face of God”. This is perhaps the ultimate reverence for the *other* (2.11.6.2). These extraordinary experiences and expressions of insight illustrate both the totally unexpected initiative of God and the human ‘response-ability’ and disciplines under-girding the practice of spirituality.

The methodological implication of including the concept of spiritual emptiness (provided it is clearly defined and distinguished from ‘emptiness’ as humility or stillness, as in 2.11.5) involves using construct pairs, for example, existential quest versus alienation, transcendence versus Self-encapsulation. This implication is valuable for ensuring spirituality is contextualised and applied to vital issues such as justice, poverty, violence and so forth, which requires considerable insight and are crucial existential and systemic issues for any research conducted in South Africa. These macro issues are also, of course, inseparable from the individual’s quest for meaning and *ubuntu* (2.11.6.4). This approach of spirituality to insight enables a better appreciation of heightened aesthetic experience of goodness, truth and beauty than any of the other eight approaches explored. That is why President Clinton, announcing the completion of the Human Genome project, did not express himself solely in the language of science, but included the language of spirituality and insight: “Today we are learning the language in which God created life. We are gaining evermore awe for the complexity, the beauty, and the wonder of God’s most divine and sacred gift” (Collins 2006, p. 2). It was a true Eureka moment. This is why the philosopher Lonergan (1983, p. 668) concludes in his monumental study of *Insight: A Study of Human Understanding*, that: “God is the unrestricted act of understanding, the eternal rapture glimpsed in every Archimedian cry of Eureka”.

## 2.13 Conclusion

The Literature Review has provided *both* a ‘wide lens’ perspective in terms of an overview of the approaches of scholarship, *and* an opportunity to ‘focus’ the study through successive steps of clearer definition and clarification in terms of understanding the nature and experience of insight.

In terms of this qualitative study of the experience of insight, three issues emerge with particular clarity:

*First*, it is not possible to explore qualitative experience using quantitative methods. The underlying philosophical approach is crucial; a human scientific approach, rather than a natural scientific approach, is required for studying the experience of insight. “No one puts new wine into old wine skins; if it is, the skins burst and the wine is spilled, and the skins are destroyed; but new wine is put into fresh wineskins and so both are preserved” (Matthew 9:17).

*Second*, qualitative research is needed “not to close the subject, but to open it further” (Sardello 1975). So this study attempts to expand the field, seeking not definitive numerical certainty, but integrated, holistic and comprehensive understanding of the experience. This does not, of course, imply the exclusion of findings from quantitative studies that help to illuminate the experience of insight.

*Third*, it is helpful to clarify the distinction between “research design” and “research methodology” following Mouton (2001, p. 55). The research design focuses on the end product, the research question and the evidence required to address the question of the experience of insight adequately. The research methodology focuses on the research process, the specific tasks and steps in the process, and the best procedures to be employed.

It is to this task that the next chapter is devoted.

## CHAPTER 3

### THE METHODOLOGY

#### 3.1 Introduction and Orientation

The previous chapter reviewing the research literature and identifying nine different approaches to the phenomenon of insight clearly reveals how significant methodological issues are in determining the outcome of the research.

It is recognised that there is a fundamental difference in the desire to understand, between the qualitative and quantitative approaches to the experience and phenomenon of insight. Yet these two approaches are equally valuable and need not be in competition with one another, but may be complementary to one another.

In this chapter predisposing factors as well as inter-related reasons for the choice of the existential-phenomenological approach will be enumerated. This will be followed by a brief philosophical background of existential phenomenology and its adaptation for psychology. The details of the methodology employed in the research process will then be examined.

#### 3.2 Predisposing Factors in Choosing the Existential-phenomenological Approach

It has to be acknowledged that there were three predisposing and interlocking factors in choosing the existential-phenomenological approach: the researcher's own training and preference, the variety and complexity of the subject matter and the very diverse manner and fields in which the research participants experienced insight.

*First*, the existential-phenomenological approach formed a significant part of the course work preceding this thesis, with particularly valuable input in seminars from van Vuuren (1989,1991), Kunz (1998) and Alapack (1990,1999,2001,2007,2010). Despite living in Cape Town, the decision was taken to register at Pretoria University precisely because of the practical and

philosophical values inherent in this approach, which coincided with the researcher's own intuitions, values and appreciation of inclusivity. However it has to be admitted that at this stage the researcher's intuitions were relatively uninformed of the distinct disciplines and methodology of existential phenomenology.

*Secondly*, the desire to research the experience of insight was consciously reached as a result of the researcher's life and work experience well before registering at Pretoria. The fact that interdisciplinary experience was encouraged in accepting my application confirmed my own sense that rich, varied and detailed descriptions were essential for an investigation of the complexity of the subject matter: the experience of insight. Hence the variety in selecting the nine approaches in the literature review and the choice of the existential-phenomenological approach as the most relevant and inclusive of the nine, in order to gain understanding of the meaning and significance of these experiences of insight.

*Thirdly*, it was always the researcher's intention to choose research participants experiencing a variety of insight in different contexts, traditions, cultures and disciplines. It gradually became clearer that the existential approach of psychology with the increasingly rigorous steps delineated by Giorgi was the most appropriate. For more detailed reasons which follow on from these predisposing factors see section 3.4.

### **3.3 The Choice of the Existential-phenomenological Approach**

There are a number of well-developed qualitative methodologies based on case studies (such as hermeneutics, heuristics and grounded theory), which are not necessarily mutually exclusive. However, the foundational approach selected for this study of the experience of insight is the existential-phenomenological method developed by Giorgi (1970, 1975a, 1975b, 1979, 1983, 1985b, 1995, 2003, 2004, 2009). What follows is not intended as a review of existential phenomenology but as an articulation of the main reasons why this approach was selected for this study:

- (1) The stress in existentialism on the existence of the individual person as a free agent who is burdened with personal responsibility ‘rings true’ for many of my own experiences of insight, as its meaning and significance unfolds.
- (2) The concentration in phenomenology on the detailed description of conscious experience while suspending or bracketing all preconceptions, interpretations and explanations, seems particularly important for researching the phenomenon of insight about which there are so many preconceptions and assumptions. The word *phenomenon* comes from the Greek *phaenesthai*, to ‘flare up’, to ‘show itself’, to ‘appear’, so it seems particularly suited to the experience of *insight* as well as accounting for the maxim of phenomenology, namely “to the things themselves”. The crucial importance of this maxim in investigating insight is revealed by the puzzling question in the approach of cognitive psychology to agree on the definition of an *insight problem*.
- (3) The use of this human scientific approach of phenomenology has been chosen *both* for its appropriate philosophical underpinnings, especially its rejection of dualism which bedevils any understanding of an experience such as insight, *and* because “it is the one most tailored to psychological phenomena” (Woodrow 2006, p. 94). As Giorgi and Giorgi (2003, p. 244) express it: “The philosophers concentrated on assumptions and concepts and psychologists looked for methodical help”.
- (4) The notion of intentionality has helped Valle: “to understand the nature of my everyday experience. It has provided a context in which to understand the essence of my transpersonal experiences ...” (Valle & Halling 1989, p. 258). This conceptual ‘bridging’ is of particular value for understanding both ‘everyday’ and ‘transcendent’ experiences of insight. Intentionality implies the deep implicit inter-relatedness between the perceiver and the perceived. This pre-reflective inseparability enables us, through reflection, to become aware of the meaning that was implicit in the situation as it was lived, which is especially helpful for a meaningful experience of insight, precisely because it often initially has an “other-than-me” quality about it.
- (5) Finally, there is considerable heuristic value in the increasing rigour of the existential-phenomenological step-by-step process. This process helps to facilitate the challenge of discerning the essential data and structure in the research participant’s description of his/her experience. So it is submitted that this is the most appropriate methodology for studying the “what” rather than the “why” of the lived experience of insight.

### 3.4 A Brief Philosophical Background to Existential Phenomenology

This will be considered, concisely, under three headings: existentialism, phenomenology and existential phenomenology.

#### 3.4.1 Existentialism

Existentialism owes its origin to the remarkable Danish scholar, Søren Kierkegaard (1813-1855). His religious philosophy is concerned with individual existence, choice and commitment. He ruthlessly explored his own considerable struggles in life and found in them examples of universal struggles of being human. He had a brilliant mind and vivid way of expressing truth, seen for example in “Lying is a science, truth is a paradox” (Kierkegaard 1961, p. 158). He also with searing honesty described his own experience of mental pain, dread, fear of commitment and his relationship with God, shown in his description of faith as “the anticipation of the eternal which holds together the cleavages of existence” (Kierkegaard 1938 extract 605). He died at the age of 42 but his work remains incomparably the most perceptive diagnosis of the tortuous paradoxes of schizoid experience in *Fear and Trembling* (1941), *The Concept of Dread* (1946) and *The Sickness Unto Death* (1941).

The existential attitude is one of involvement and existential knowledge is based on an encounter in which a new meaning is created and recognised. The courage to face things as they are and to express the anxiety of meaninglessness has been potently exemplified by Nietzsche, depicted by Sartre in his play *No Exit*, evoked by T.S Eliot in his poem *The Wasteland* and characterised by Kafka in his novels, *The Castle* and *The Trial*. Tillich (1979, p. 147) describes Heidegger’s proposition that “the essence of man is his existence” as “the most despairing and the most courageous in all Existentialist literature”.

#### 3.4.2 Phenomenology

Phenomenology, as a distinct philosophy, may be traced back to the publication of *Logical Investigations* (1970, Vol. 1 originally published in 1900, and Vol. 2 in 1901) by Edmund Husserl. His thinking continued to develop, although not always in a linear way, with his *Ideas* (1983 & 1987, Vol. 1 originally published in 1931 and Vol. 2 in 1952). For Husserl, what

appears in consciousness is the “phenomenon”. There is an intertwining of subjective and objective knowledge in Husserl’s thinking; perception of the reality of an object is dependent on a subject. The transformation of experience into essential insights occurs through a process of “ideation” through which a meaning is created, a knowledge is extended. “Intentionality” refers to consciousness, such that the act of consciousness and the object of consciousness are intentionally related. So self and the world are inseparable components of meaning. Every intentionality includes both *noema* (the phenomenon) and *noesis* (the meaning/s). “Intuition” is another key concept (see also section 7.16), for as Moustakas (1994, p. 32) boldly declares: “my intuitive knowing of myself and what presents itself of its own accord does not betray me”. This is also recognised by Levinas in his *Intuition of Essences* (1967).

Husserl’s (1900) main concern was with opening up the phenomena of everyday lived experience. To achieve this, he developed the idea of suspending what is believed to be true about the world. So everyday understandings are set aside and the phenomena are revisited, freshly and naïvely, in order that we may learn to “see”, distinguish and describe. This suspension of beliefs is referred to as *epoché*, a Greek word meaning to pause (in time), to hold back, to refrain. In this present context, it refers to holding back from judgments, preconceptions and presuppositions. This is also referred to as “bracketing”. The next essential step in the process is “Transcendental-Phenomenological Reduction”. ‘Transcendental’ because it moves beyond the everyday to the pure ego in which everything is perceived freshly, as if for the first time; ‘phenomenological’ because it transforms the world into mere phenomena; ‘reduction’, (from the Latin *reducere*, literally ‘to bring back’) because it brings us back to the source of the meaning and existence of the experienced world. So the phenomenon is perceived in its totality in a completely fresh and open way.

Giorgi and Giorgi point out that the transcendental perspective is a totally philosophical one and should not be a guide for psychological analysis in these terms: “It is psychological subjectivity that interests psychology, not the transcendental one” (Giorgi & Giorgi 2003, p. 245). This is followed by “Imaginative Variation”, in which the aim is to grasp the structural essence of experience. So that, if the specific dimension varied in imagination causes the object to ‘collapse’, it is regarded as essential for the object to appear as a whole. If the object is modified but still recognisable, despite the imaginative variation, then it is regarded as accidental rather

than essential. The final step is to describe the invariant aspect of the object, in other words its essence.

Husserl was the first German scholar to be recognised by the British after World War 1. He lectured in London in 1922. His exclusion from the university as a result of Nazi repression in 1933 led him, in the opinion of his research assistant “to concentrate on the function of phenomenology as support for the freedom of the mind” (Stein 1986). Husserl influenced many of the leading philosophers of the twentieth century who worked in the continental tradition, notably Heidegger (1962 & 1972), Merleau-Ponty (1962) and Sartre (1956). Spiegelberg (1982) gives the classical history of philosophical phenomenology, in much more detail than is relevant here.

### **3.4.3 Existential Phenomenology**

Existential phenomenology, the confluence of these two streams of thought, came together in the work of Heidegger, *Being and Time* (1962). Heidegger expanded Husserl’s philosophy by shifting the concern from knowledge to emphasising what it means to be a person being-in-the-world (cited in Macquarrie 1968). Merleau-Ponty (in Madison 1999) combined Husserl’s approach to epistemology with an existential orientation derived from Heidegger. His central premise, in his seminal work, *Phenomenology of Perception* (1962), is that objective thought distorts lived experience with the result that estranges “us from our own selves, the world in which we live and other people with whom we interact” (Langer 1989, p. 149).

## **3.5 The Adaptation of Existential Phenomenology for Psychology**

Husserl believed that psychologists would be able to use his philosophical concepts and Merleau-Ponty (1962 & 1964) wrote about the relationship between phenomenology and psychology with conceptual clarity in ways that were sympathetic to the psychologist’s perspective. However neither Husserl nor Merleau-Ponty applied philosophical concepts to psychological research methodology. Sartre believed that phenomenological philosophical assumptions enable the interrogation of the experiential world but, as Giorgi and Giorgi (2003, p. 244) point out,

“although Satre’s insights are unmistakably helpful, just how he achieved what he did is not spoken to – that is, he presented results, not processes”.

So while the philosophers concentrated on assumptions and concepts, the psychologists looked for methodological assistance. It was Giorgi who pioneered a rigorous interpretation of how the phenomenological method, as developed within the continental philosophical tradition, could be adapted and made useful for the practice of psychology and concrete research with an articulated method that generated data that others could replicate. See Cloonan (1995) for a detailed history. The exact steps of the process that Giorgi pioneered will be outlined in the forthcoming sections of **3.6**.

## **3.6 The Research Process**

It seems important to recognise from the start that an existential-phenomenological method is not simply a technique; it is an approach that uses steps, procedures and methods that will facilitate the central aim of discovering, understanding and communicating *meanings*. So, a description of existential-phenomenological methods needs to explicate its attitude, understandings and approach as well as the specific sequence of steps taken in carrying out the research.

In structuring the research process, the following steps and considerations were taken to explore the experience of insight in an ethical, methodical and human scientific way.

### **3.6.1 The Literature Review**

Unlike most investigations, this study did not begin with a literature review. This was a conscious and deliberate decision in order to guard against the tempting tendency to examine the experiences of the research participants primarily for evidence confirming the theories that had emerged in the review of recent scholarship. The intention was to seek to be more naïve, vulnerable, sensitive and open to listening to the actual experiences of my research participants. So, although the literature review in chapter 2 precedes this chapter, it was in fact only

undertaken after the work on the investigation of the transcribed interview of the research participants and some preliminary findings were established.

### **3.6.2 A Self-reflective Search**

A significant part of my interest in the phenomenon of insight stems from my own experience of a number of insights: one while becoming unconscious buried in a snow avalanche, several while reflective or prayerful and a number during conversation or in a therapeutic setting. So I decided to do a self-reflective search of my own experiences of insight, particularly focusing on their meaning and significance in the unfolding process of my own life, work and development. This series of reflections was undertaken, with three purposes in mind, in order to:

- (1) sensitise me to the nature of the research that I was embarking on and to become as empathic as possible to the experiences of my research participants
- (2) clarify my central research question for each research participant
- (3) attempt to identify my own preconceived notions or biases, with a view to ‘bracket’ them and so minimise their effects in explicating the meaning of the research participants’ descriptions.

I found this self-reflective search a valuable exercise in terms of all three purposes outlined above. What I had not anticipated was the significance of reviewing these experiences of insight, in terms of my understanding of my career changes, my most deeply held values, my move from the UK to live in South Africa and the way these experiences continued to illuminate the sense of meaning in my life. It was a profoundly moving and revealing experience and it remains like a quivering, freshly adjusted compass needle, pointing towards my true self.

### **3.6.3 The Central Research Question for the Interview**

Having decided to start with interviewing research participants, rather than with a literature review, some thought was given to the kind of research question that would elicit thoughtful responses about a revealing personal experience of insight, whether sudden or gradual, which had occurred in each research participant’s life. The purpose of this central research question is to

generate a text of the interview that is meaningful for the research participant which is faithful to the existential-phenomenological experience of that person.

I identified six crucial elements for the central research question. I felt that, to be most useful for this study, the question would need to:

- (1) emphasise the importance of the participant's *personal* and *lived experience* of insight, rather than an objectified event or concept of insight.
- (2) ask the participant to describe the *concrete situation*, the historical context of the experience of insight.
- (3) evoke *specific details* of a particular experience of insight in the participant's life or work, rather than a generalised or summary response.
- (4) invite the participant to share what happened in all three dimensions, or 'ecstasies of time' present in the experience, *before*, *during* and *after* the experience.
- (5) elicit a response to the difference that this experience of insight may have made to the research participant's *way-of-being-in-the-world*.
- (6) express the *unity of perception, cognition and feeling* in the experience of insight rather than elevating one aspect at the expense of the others.

With these considerations in mind, and in the light of my self-reflective search, I formulated a central research question for the participants as:

Would you please describe an experience of insight, whether gradual or sudden, in which you saw or understood something that changed the way you viewed or lived your life, or which you were able to express in your work. Please describe in detail a particular lived experience; the context and what happened before, during and after; what you thought, felt and did.

In retrospect I recognise that this interview question was subtly formulated and clarified from the experience gathered from my self-reflective search (see section 3.6.2) rather than simply obtained from them methodological literature in three particular ways: an addition, an exclusion and a liminal space.

- (1) In asking the research participants to describe an experience of insight, I included the phrase "whether gradual or sudden" because, although it is always said that insight is a sudden

and unexpected experience, I was aware that I had sometimes been ‘struck’ by something which heightened my level of consciousness before the actual insight occurred. So to include this possibility I added the word “gradual”. Being ‘struck’ in this way also enabled me to recognise the significance of the word ‘impact’ when I came to review the existential-phenomenological approach to insight (see section **2.4.3**).

(2) In my own experiences of insight, ranging from the comparative trivial to what was almost certainly life-saving in the snow avalanche, there were a considerable variety of modalities in which the insight came, including pictorial images, auditory experiences and on one occasion an image of a text laid out in a striking way with certain words in red, while the main text was in black. I had originally wanted to find some phrase to include the possibility of a variety of modalities, but recognised that this was something to be deliberately bracketed (see section **2.4.6**) because it might be suggestive in an unhelpful way.

(3) When I was completely trapped and helpless, deeply buried in a snow avalanche, I was absolutely certain I was going to die. I was terrified. Despite the experience of insight, which may have occurred as I was going unconscious, I had no conscious experience of peace. I remained petrified. I was rescued after forty-two minutes and according to the medical specialist’s report I “must have been very much at peace with a considerably slowed heartrate, because the analysis of the impacted snow in the avalanche revealed that there was only enough oxygen to sustain life for approximately twenty minutes”. This experience helped to open up a liminal space for me to recognise the significance of the theatre of the body in the body-mind-spirit continuum, even when partially unconscious in the experience of insight. This was of particular value in appreciating Roger Penrose’s subliminal experience of insight (section **5.7**).

### **3.6.4 The Ethical Protocol and Informed Consent Form**

Clearly, research with human subjects must serve both scientific and human interests. As a priest and psychotherapist, I feel honour bound by the ethical and moral requirements of both professions. As a researcher, I am responsible to the Research Proposal and Ethics Committee of the Faculty of Humanities at the University of Pretoria, under whose authority this research is conducted.

So I first developed an ethical protocol and an informed consent form for consideration by that committee, which formally approved this study. This submission not only gave basic information about the nature of the research, process of interviewing, handling of information and safeguards around confidentiality, but also became essentially a written contract with each participant. Each consent form was therefore signed by the participant, me as researcher and Dr Assie Gildenhuis as my supervisor.

I am aware that the informed consent form I developed may differ from many others in at least three respects:

(1) I am committed to Lincoln's (1990, p. 286) proposal of "the negotiation of research processes and products with one's respondents, so that there is a mutual shaping of the final research results". I do not anticipate problems with the ideals of egalitarianism and mutuality of interests presupposed in this approach; in fact, I have a strong sense that it enhances openness and enables better results.

(2) provision was made for different degrees of confidentiality. The reason for this is not only due to the different nature of the insights that may be shared, but also due to the different lives of my research participants. Some are public figures, others very private; some have published accounts of their experience, others remain puzzled by their experience; some experiences are more meaningful if owned by name and fully contextualised, others are best left completely anonymous.

(3) it may be idealistic but I shall aim at some real reciprocity in what the subjects give and what they receive from participation in the research. This is based both on the value of exploring experiences and story-telling in psychotherapeutic practice, and on my own positive experience of being profoundly listened to in a research interview after giving evidence involving very painful experiences and insights to the Truth and Reconciliation Commission.

So these three considerations are specifically included in the informed consent form reproduced in Appendix C.

### **3.6.5 Selection of Research Participants**

In qualitative research it is not necessary to obtain a carefully chosen random sample of research participants conforming to what can be measured in the way that is required of a control group in quantitative research. Nevertheless, for my own interest and with the intention of getting a good cross-section of people with experiences of insight, I attempted to seek out a reasonable variety:

- *of people* (in terms of sex, race, culture, educational background etc.) with an experience of insight, willing to be research participants
- *of contexts* (in terms of lifestyle, work, academic discipline, social and political contexts etc.) within which the research participants have experienced insight
- *of physical condition* (in terms of alone or with others, walking, relaxing, meditating, bathing etc.) under which the research participants have experienced insight
- *of forms* (in terms of words, associations, images, colours or sounds, whether sudden or gradual etc.) of insight experienced by each research participant.

Giorgi (1985, p. 19) suggests that the more research participants there are, the greater the variations, and hence the better the ability to see what is essential. Since I was going to be working with a fairly small number of research participants, I argued that the greater the varieties of experiences of insight the richer, more nuanced, more interesting the material would be, as well as increasing my ability to see what is essential, and therefore, hopefully, the more persuasive the research results would be.

With these considerations in mind, I selected seven people and wrote to them outlining the nature of my research and inviting their participation. See **Appendix B** for an example of this initial letter of invitation. Three people proved very willing to participate and a further one was open to gentle persuasion making four research participants in all. More details about the participants will be given in chapter 4 on the preliminary study and in chapter 5 on the investigation and findings.

### **3.6.6 A Preliminary and Exploratory Study**

There was no intention, as is the case with some quantitative research methodology, of excluding the research participant selected for the preliminary and exploratory study from the main study. The preliminary study was seen as part of my learning curve, an opportunity to hone qualitative interview skills using an audio tape recorder, to test the viability of the research question, and to

get some practice at managing the protocols and the various steps in the existential-phenomenological research procedure. Whether the preliminary and exploratory study would be regarded as suitable for inclusion in the main body of research was left open for a decision in the light of the viability of the process and quality of the results.

I therefore selected a subject who was well known to me, lived relatively close by geographically, so that if necessary I could return to clarify points with him, and who would be reasonably understanding and forgiving of me. Significantly I chose a cartoonist who could be counted on to see the funny side of this strange activity.

I found that the qualitative research interview and the central research question seemed to generate sufficiently rich material. A detailed account of this preliminary and exploratory study forms the basis of the next chapter.

### **3.7 The Interview**

Moving from the preliminary study back to the methodology as a whole, there are four aspects of the interview that are worthy of consideration at this point: theoretical clarification, qualitative characteristics, methodological implications and, finally, practical matters relating to recording, transcription and verification of the interview.

#### **3.7.1 Theoretical Clarification of the Interview**

According to the existential-phenomenological approach, interviews should be conducted in an open-ended, collaborative dialogue with the goal of obtaining “as faithful and complete a description of what was lived through by the interviewee as possible” (Wertz 1985, p. 161). A qualitative research interview, as collaborative dialogue, already creates a world of shared meanings and involves both the generation and interpretation of a text. The dialogue, as Todres (1990, p. 77) points out, “is already a hermeneutic endeavour in that there is an implicit or explicit task to achieve a sufficient degree of shared understanding as to the integrity of the experience”.

The level of understanding appropriate in the interview phase of the research may be called the ‘story level’, where a description of the details and the integrity of the whole experience is facilitated in such a way that both researcher and research participant are satisfied with the sense of ‘that is *how* it happened’. This means that the researcher is not asking the participant about his or her experience at a general level, or within a psychological attitude. These levels of explication are properly left to later procedures carried out by the existential-phenomenological psychological researcher.

Some natural scientific researchers might object at this point and assert that an interview may be a great source of confusion, distortion and contamination (cf. Giorgi 1986). Qualitative research interviewing has to address that objection seriously in terms of specific skills, as Kvale (1983,1996) does in detail. However, at a more fundamental level, existential-phenomenological researchers would contend, with Todres (1990, pp. 77-78), that understanding “the *meaning* of an experience is more likely to be enhanced through dialogue rather than be reduced by it. The crucial distinction is between *facilitative* and *non-facilitative* dialogue, rather than between ‘raw’ and ‘contaminated’ data”. So the vital difference is not between ‘leading questions’ and some hypothetical notion of a ‘neutral stimulus’, but between questions that help *ground the dialogue in a particular lived experience* and questions that tend to lead to generalisations, abstractions and theorising.

A further question, and possible objection to the interview as a method for eliciting data, could be conceived and argued in terms of what is sometimes referred to as the ‘power differential’ (Cieurzo & Keitel 1999, p. 70) between the researcher and the interviewee. In this research four factors contributed to minimising this power differential in each interview:

- (1) The research participants were all volunteers who had carefully read and signed the informed consent form.
- (2) In the interview situation, the research participants were given the freedom to express only those aspects of their experience of insight with which they felt comfortable.
- (3) Three of the four research participants were experienced and mature individuals who had already published some material related to their experience of insight.
- (4) All four research participants were reminded that the purpose of the interview was to gain an *understanding of the experience* of insight rather than *analysing the individual*. This was of

particular importance for one research participant who had been in therapy with me three years before. This presented a particular challenge, which I addressed by doing a personal reflection seeking to explicate the differences between the roles of researcher and therapist. This was done in order to raise my conscious level of awareness, so as to enable appropriate functioning in the research situation.

It is submitted that the combination of all four factors above affectively limited the ‘power differential’ in the interview situation and facilitated dialogue revealing valuable data about the research participants’ experiences of insight.

### 3.7.2 Characteristics of a Qualitative Interview

Kvale (1983) lists nine important characteristics of a qualitative research interview which have informed and guided my approach, so I include a brief summary provided by Todres:

1. One is theme-centred rather than person-centred; that is, interested in common structures revealed by the interviewee’s life-world.
2. One seeks to understand the *meaning* of phenomena in the interviewee’s life-world; that is, the interviewer covers the factual as well as the meaningful level ...
3. One is interested in the *quality* of the phenomenon; that is, the interviewer aims to obtain as many nuanced descriptions from the qualitative aspects of the interviewee’s life-world as possible.
4. One is *descriptive* in emphasis; that is, although interpretations and reflections may become part of the dialogue, the interviewer actively represents the importance of returning to the description of the experience as lived.
5. One is *specific* in emphasis; that is, the interviewer encourages descriptions of concrete situations and action sequences more than general opinions and reflective conclusions.
6. One attempts to be open to new and unexpected phenomena; that is, the interviewer is critically self-conscious of his/her own ongoing presuppositions.
7. One is focussed on certain themes; that is, the interviewer represents what the focus of interest is, but within this, allows as much non-directive freedom as possible.

8. One is open for *ambiguities of meaning*; that is, when ambiguities of meaning arise the interviewer helps to clarify the nature of the ambiguity and reflect it as such, or else clears up the ambiguity when it merely involves a misunderstanding.
9. One is sensitive to the ethics of the situation; that is, the interviewer should ensure that the experience is a positive one for the interviewee and that adequate ethical protection, such as confidentiality, is ensured. (Todres 1990, pp. 79-80)

### **3.7.3 Methodological Implications of the Interview**

I interviewed each research participant at some length (usually between one and a half and two hours). While acknowledging that the interview needs to be essentially theme-centred, I did not start the interview with the central research question as detailed in section 3.6.3. I began by trying to establish a relationship of trust in which the participant, his or her background, as well as the context of the experience, could be understood as fully as possible. For this reason, I thought my research participants would be more at ease in their own homes and offices and therefore interviewed each one in his or her own place. Hagan (1986, p. 352) articulates my core belief in this respect when he says “significant knowledge of human life is obtainable by a genuine human relationship, not by a technical one”. It did not seem necessary to include all of this preliminary conversation in the transcriptions of the interviews.

Therapeutic experience is clear: the quality of listening and of mutual rapport greatly enhances the quality of the lived experience recalled and shared, in this case, by the research participant. Wertz and van Zuuren (1987) refer to the following “clinical skills” that are required to facilitate a qualitative research interview: being able to listen in depth, to summarize and to take the whole context into consideration, to be sensitive to implicit aspects of human expression, and to create a research situation of mutual trust and understanding.

The point at which I posed the central research question marked a turning point in each interview, from the general to the particular experience of insight and from the person-centred to the theme-centred focus of the interview.

### **3.7.4 Practical Matters Relating to the Interview**

With the permission of the research participant, each interview was audio-tape recorded and then transcribed in order to obtain a written text of the interview (subsequently referred to as a protocol) which formed the basis for the step-by-step process for the analysis, described in section 3.6.8. A part of the agreement before the recording took place was that the researcher would submit the transcription to the research participant, for verification. The understanding was that at this point the research participant had the freedom to change, enlarge upon or delete anything so that he or she felt entirely happy with the final product. Interestingly, all of the research participants accepted the transcribed texts as they were, with the exception of a single word change by one participant. It had also been agreed previously that no attempt would be made to change the text from a verbal account to a more polished or sophisticated written account since it was regarded as valuable to conserve the immediacy of the interview.

## **3.8 The Procedure for the Analysis of the Protocols**

The primary objective of the procedure is to arrive at a general structure of the experience of insight. This requires a disciplined series of steps which help to ensure that the interpretations of the researcher are rigorously informed by the protocols.

The meanings that are articulated in the general description are never considered “totalised” as Levinas (1969) expresses it, nor are they regarded as “universal” in Giorgi’s (1985, p. 50) terminology. The reason for this is that “fresh perspectives will undoubtedly further our understanding as different contexts of understanding take historical root. This is as it should be, as understanding always occurs within particular cultural and historical situations” (Todres 1990, p. 83).

The protocols were subjected to defined steps of procedural discipline primarily pioneered by Giorgi (1975,1983,1985a&b,1986,1989a&b,1994,2000,2004). Slight variations of this method have been described by, inter alia, Collaizzi (1978), Hoek (1988), Polkinghorne (1989), Stones (in Kruger 1988) and Wertz (1983,1985).

Each step of the procedure helps the primary task of analysing, understanding and explicating the structure of the experience of insight. It is something akin to the process of focussing a pair of binoculars; first, one eye clarifying the specific, explicit, and situated event, then shifting the focus for the other eye, clarifying the implicit and referential meanings, until both are magnified and in sharp focus.

The following steps are essentially based on Giorgi (1975) and additionally described by Polkinghorne (1989) and Todres (1990).

### **3.8.1 Obtaining a Sense of Each Protocol as a Whole Experience (Step 1)**

Each protocol is re-read as many times as is necessary in order to get a feeling and understanding of it as a whole experience. Such a reading is, as Todres (1990, p. 84) points out, already active in two ways:

- (1) The researcher seeks to be immersed in the *world* of the research participant's description by becoming disciplined and attuned to being open to such a world. This requires the suspension or bracketing of preconceptions as much as possible. According to Todres (1990, p. 84): "[t]his constitutes a broadly phenomenological attitude".
- (2) The researcher focuses on a particular *lived experience* within that world, in this case an experience of insight. This requires an experiential focus and an ability and method of understanding such experience. As Todres (1990, p. 84) puts it: "[t]his constitutes a broadly psychological attitude".

This sense of the experience-as-a-whole is essential before going on to attempt to analyse the individual parts of the experience in the subsequent steps of the procedure. It also may, hopefully, serve at an intuitive level to prevent distortions in the interpretation of the *parts*, creating sufficient awareness of the *whole*, and enabling one to be aware of the inter-relationships of the parts, while attempting to articulate what those relationships are.

### 3.8.2 Discerning and Numbering Meaning Units (Step 2)

This step involves discerning and numbering meaning units (MU) that seem to express a self-contained meaning or constituent part of the experience of insight from a psychological perspective. This second step refines the contextual understanding achieved in the previous step by focusing on discreet changes of meaning within the larger context of each individual protocol.

So each protocol is re-read with the following question in mind: “At what stage in the protocol is there a change of meaning of the situation for the research participant in terms of his/her experience of insight?” This question reflects the adoption of a psychological attitude in which the researcher is interested in how the protocol says different things about the psychological nature of the phenomenon in question, that is, about qualitative changes in the experience for the participant.

At this stage the protocol is left intact: both the order of the units as well as the language of the research participant remains as transcribed from the interview. Changes in meaning are simply numbered and referred to as MUs. The purpose of numbering each change in meaning is to indicate that each part is to be considered a relevant constituent of the *experience as a whole*.

The discernment of MUs is significantly different from a “content analysis” where “elements” can be listed separately from their inter-relationship. MUs are, rather, *constituents* of the whole lived experience, in that they retain their identity as contextual parts of the research participant’s specific experience (Polkinghorne 1989).

The objective of this second step of discerning MUs is to provide a standard of discipline by which as many nuances of meaning as possible can be taken into account when articulating the general structure.

### 3.8.3 Stating the Meaning That Dominates Each Meaning Unit (Step 3)

This third step is the first transformation of the data from the research participant’s words to the researcher’s words. It involves stating the meaning that dominates each meaning unit as simply and concisely as possible in the researcher’s own words, while retaining the situated context in

which the experience of insight occurred to the participant. This is an attempt to express in an explicit way the implicit psychological aspects of the MU which is referred to as a transformed meaning unit (TMU).

So each MU is re-read with the following questions in mind: “[w]ithin the total context of this protocol what does this change of meaning tell me about [the participant’s] experience of insight?” and “[h]ow can I express this constituent of the whole in such a way that it does justice to the concrete situation, yet emphasises its more general psychological properties?” (Todres 1990, p. 87).

#### **3.8.4 Interrogating Each Transformed Meaning Unit (Step 4)**

In this fourth step the researcher works with the MUs (Step 2) and their first transformations, TMUs (Step 3), with the following questions in mind: “*What* is the experience of insight?”, “*How* does the experience of insight come about?” and “*Where* does this constituent of the whole lived experience fit into the process or structure of gaining insight?”

This is the second transformation by the researcher and reveals the structure of the experience of insight (the *what?*), reveals the style (the *how?*) and also reveals the constituent part of the whole (the *where?*) for this particular participant in this particular context. This is referred to as an “interrogated transformed meaning unit” (ITMU) and is expressed in psychological and phenomenological terms.

Polkinghorne, (in Valle & Halling 1989, p. 55), acknowledges that the transformation of an MU from the subject’s everyday language into a statement using psychological terms to describe the phenomenon being investigated as “one of the most difficult aspects of the data analysis process”. The transformations are necessary because the original descriptions given by the participants are usually naïve regarding psychological structures and often contain multiple and blended references. Yet it has to be acknowledged that in a few cases where the research participant has used particularly vivid, pertinent and psychologically revealing language, the original word or phrase is more powerful than any psychological terminology.

The transformation is not accomplished through abstraction or formalisation, nor does it remain at the level of the linguistic expressions as in content analysis, but focuses on the *experience* to which the language refers. The transformation “goes through” the everyday language to the reality it describes. This “going through”, according to Polkinghorne (in Valle & Halling 1989, p. 55), is accomplished by two thought processes: *reflection* and *imaginative variation*.

The process of *reflection* involves a careful and sensitive reading of an expression to answer the questions: “What is truly being described in the MU?” and “What is absolutely essential to understand the psychological dynamic operating here?”

The process of *imaginative variation* is a way of testing the answers initially suggested by the process of reflection. It is a type of mental experimentation in which the researcher intentionally alters, through imagination, various aspects of the experience, either subtracting from, or adding to, the *proposed transformation*, in order to stretch it until it no longer describes the experience underlying the participant’s naïve description.

A test of the correctness of an ITMU is that one can work backwards from the transformed expression to the original naïve expression. A further test is that such ITMUs must be *verifiable* by other researchers who agree independently that the transformed meaning does describe a psychological process that is, in fact, contained in the original expression. Giorgi (1989b, p. 73) reports that this degree of “inter-subjective agreement is surprisingly high”.

### **3.8.5 Synthesising These Interrogated Transformed Meaning Units into a Descriptive Situated Structural Statement (Step 5)**

This fifth step involves an activity of synthesis and integration whereby the themes are highlighted in such a way as to reveal the unity of the experience as well as the specific contextual factors which go to make up the experience of insight.

So, according to Polkinghorne (1989, p. 54), this situated structural statement (SSS) of essential non-redundant psychological meanings for the whole protocol “continues to include the concreteness and specifics of the situation”, in which the research participant’s experience of

insight took place. This description answers the question “[w]hat is the psychological structure of [insight] as it presented itself to this participant in this particular situation?” (Polkinghorne 1989, p. 54).

In this fifth step the ITMUs are related to each other and to the sense of the whole protocol, while the researcher works with the following questions in mind: “How can I express the relationship between this ITMU and the experience as a whole?” and “Have the themes that I am synthesising sufficiently included this particular meaning?” and finally “What is the psychological structure of insight as it present itself to this participant in this particular situation?”

This step in the process involves a “back and forth” movement in which the generalities of the “emerging situated structure” are checked against the specifics of the ITMUs. It also includes a balance between a level of generality that is not repetitive, and a description that retains enough specific details of the context of the experience. It also incorporates the ordering of relevant meanings as well as the exclusion of irrelevant or repetitive meanings.

In this process, the researcher attempts in Todres (1990, p. 88) words to: “penetrate the meaning of the experience for each participant by reflecting not only on the explicit dimensions of what had been described, but on implicit dimensions as well”. This involves a degree of insightful interpretation that is aided by a phenomenological and psychological perspective.

The validity of the SSS can be judged inter-subjectively by other readers who may evaluate whether the description is insightful and retains a good degree of specificity and internal coherence.

### **3.8.6 Developing a General Structural Statement (Step 6)**

In this sixth step the movement is from individuality to generality and the focus is on those aspects of the experience included in the protocol that are trans-situational or descriptive of the phenomena in general. So the researcher works with the following questions in mind: “What aspects of this experience transcend this particular context of the participant?” and “What is typical of the phenomenon?” as well as “What meanings persist through these factual variations?” as suggested by Todres (1990, p. 89).

In developing a description at the level of a “general structural statement” (GSS) it is important to recognise that “the description does not claim to be of a universal structure of consciousness, but it is claimed as having a general validity beyond the specific situation of the [participant]” (Polkinghorne 1989, p. 55).

The phenomenological process of *synthesis* is different from a process that adds up, or lists together, a series of elements; it requires an eidetic seeing of the whole. *In the grasp of the whole, the constituents are understood*. So this is an attempt to “grasp the relation of the essential meanings through their coherence” (Aanstoos 1986, p. 92). It is this process that distinguishes phenomenological synthesis from an inductive process or simple generalisation procedure. The researcher may move through these six steps with each participant’s protocol, developing a separate general description of the situated structure for each one. However, if the researcher begins with multiple protocols, Giorgi (1985, p. 19) concedes that producing a general description for each protocol *may* not be necessary, since “[t]he more subjects there are the greater the variations and hence the better the ability to see what is essential”. In the light of this it is clear that, when working with a number of research participants, this step of a GSS may anticipate and merge into the next and final step.

### **3.8.7 Elucidating a Comprehensive Structural Statement (Step 7)**

In this final step the researcher directly elucidates and synthesises the findings into a single, consistent, systematic, essential and comprehensive structural description of the whole experience of insight from all the protocols. This is a “Comprehensive Structural Statement” (CSS), so features that are essentially invariant across individual experiences are thus retained.

This involves the reflective penetration into individual psychological structures in the light of other participant’s structures of experience of insight in order to find common features that are sometimes implicit. In this regard, Wertz’s (1983) suggestions for engaging in a general psychological analysis provided useful guidelines.

In this step, time and energy were devoted to allowing for the emergence of *themes* that recurred and were common to all of the research participants’ experiences. Their direct quotes explicitly

expressing, or implicitly revealing, these themes were then selected. This was not only to validate the themes but also to allow each one's own words describing his or her experience to draw us more deeply and more directly into that particular research participant's experience of that particular theme of insight.

So this final step involves movement from individuality to comprehensiveness. All the diverse individual experiences of insight are understood to contribute towards a comprehensive understanding of its psychological structure and nature. The aim is to establish what is typical of the phenomena, namely the experience of insight, and to express such typicality in a comprehensive, insightful and integrated manner.

It is recognised that Steps **6** and **7** may be conflated into a single step if the general structural statement (Step **6**) does not need to be done for each research participant individually, but can be done for all the research participants together (Step **7**), as proved to be the case in this study.

The next chapter focuses on the preliminary study and my initial attempt to apply the methodology described in this chapter.

## CHAPTER 4

### THE PRELIMINARY STUDY

#### 4.1 Introduction

This chapter begins with the purpose of this preliminary study, and the introduction of the research participant chosen for this learning experience. Following this there is an explanation of why it was necessary to focus on just one part of the interview selected for study, before presenting the *verbal text* (interview transcription) relating to Cartoon 5 with meaning units (MUs). Then the focus shifts to seven lessons learned from this verbal text and the way that it helped me to develop an understanding of, and to explore ways to slightly modify, the application of the methodology. The situated structural statement (SSS) is then expressed. Finally the extension of the study is explained and the focus turns to the application of the methodology to the *visual text* (Cartoon 5 itself), and why it is necessary to give consideration to the *context* (of the historical and socio-political *sitz in leben*) of the cartoon.

#### 4.2 The Purpose of the Preliminary Study

There was no intention, as is the case with some quantitative research methodology, of excluding the data from the preliminary study from the main study. There were four main aims for the preliminary study:

- (1) establishing a working model of how the research might be conducted.
- (2) defining the researcher's learning curve and honing qualitative research interviewing skills using an audio tape recorder.
- (3) testing the viability of the research question and this particular approach to the specific phenomenon of insight.
- (4) gaining practice at handling the protocols with the various steps in the existential-phenomenological research methodology selected and described in the previous chapter.

### 4.3 The Research Participant

Tony Grogan, my research participant for the preliminary study, who has already been introduced in section 3.6.6, is an established and highly respected artist, as well as the cartoonist for the newspaper the *Cape Times*. He has also illustrated many publications and produced numerous books of his own paintings of various scenes and characters throughout Southern Africa. He was clear that, as his work was already in the public domain, he did not require or desire anonymity and, as the following interview will reveal, spoke freely and fully about his work. We also have a good personal relationship which extends over a number of years and which made the interview easier, but may have also complicated my analysis. I shall comment on that as one of the lessons learnt after the interview, which follows. His friendship and forgiving nature was put to the test early on because after a few minutes of the interview I decided on an impulse to check that the recording was working, and discovered to my horror that the tape was blank. He took it in his stride and we began again. As a result, I learnt to do a test *before* starting interviews.

### 4.4 The Selection of one Part of the Interview for Study

The additional interview material in Appendix A, reveals that I was not sufficiently focused in the interview on the material directly relevant for this particular study of insight. I was not wanting to exclude anything that might reveal something about the nature of **Tony's** experience of insight. In the initial stages of talking about the interview we looked briefly at nine different cartoons, to see what might be appropriate, covering a period of approximately ten years of his work, particularly during the height of the struggle for justice in South Africa. As researcher, I gradually became aware of feeling overwhelmed and of the need to focus in more detail on one particular cartoon. It was also at this stage that I introduced my central research question. This is the point at which the interview below begins, in which ... signifies a pause in the conversation and numbers in brackets e.g. (1) refer to contextual notes which follow in section 4.5.

## MU1

John: I wonder whether at this stage it would be appropriate to look in more detail at a specific example. Would you be happy to do that?

Tony: All right.

John: It would be really helpful, Tony, if you could describe a lived experience of insight – whether it’s gradual or sudden – in which you saw or understood something which you were then able to express in your work as a cartoonist. If you could describe it in detail, in particular the lived experience, the context of what happened before, during and up to how you executed it, and if possible focussing on what you thought, what you felt, what you did at the time.

Tony: Can we stop at this point while we just choose one? (pause of about 5 minutes)

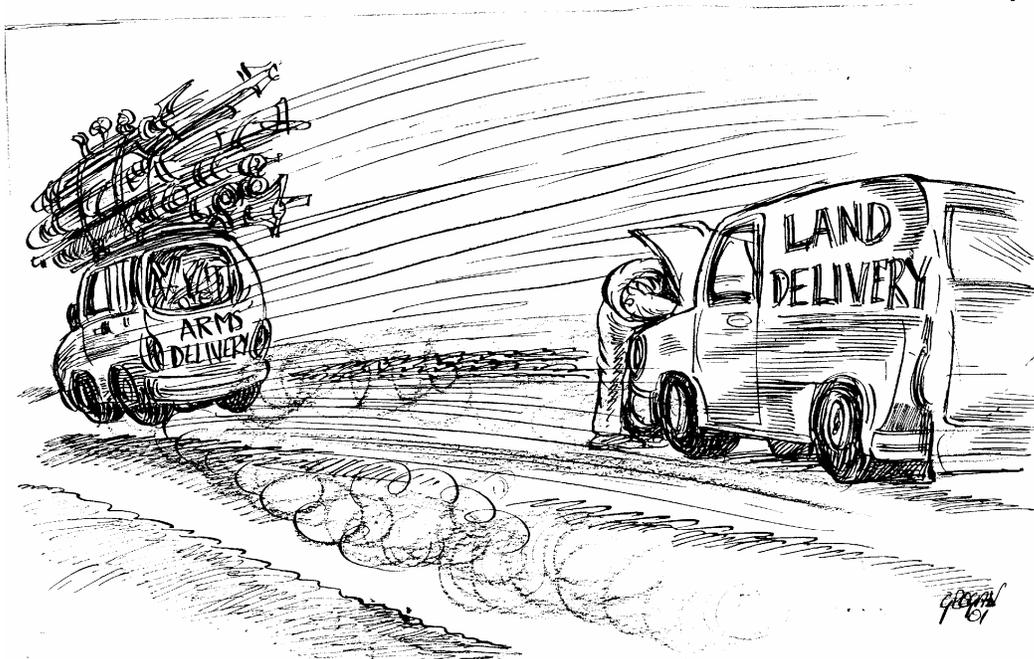


Figure 12. Tony’s Cartoon 5

John: So Tony can you describe this cartoon and how it came to you?

## MU2

Tony: This cartoon (Cartoon 5) came in the wake of the removal (1) of the squatters (2) from Bredell (3), from underneath the power lines. There was a rich irony here, because it

was so reminiscent of what used to take place under the old apartheid regime (4). So it obviously fixated my attention immediately.

### MU3

Tony: Of course, the new government, the ANC, having to do the same thing, which is a very cruel process, so I felt I needed to say something ... demolishing shacks (5) in the middle of winter again ... the poorest of the poor ... the defenceless, and applying the letter of the law (6) once again. Obviously in a different context.

### MU4

Tony: But I thought, what do I say about this? I had in fact commented on what I saw as the injustice of it, the cruelty of it, (see Cartoons 7 & 8 in Appendix A) but here I was involved with another issue, I just thought now, while the government is quite prepared to remove these people from the land, they have been particularly tardy over the years in resolving this whole land question (7), and there is no housing problem here, it is just a question of getting people a bit of land on which they can erect their own houses.

### MU5

Tony: So really what was preoccupying me here was thinking about how much land was available, how effective the government has been in releasing this land for occupation, to all these marginalised people who have been flooding to the urban areas (8).

### MU6

Tony: And in the process I thought they will probably say they haven't got the money, which is the usual excuse ... explanation. And then I thought, well, money is a problem, money is always a problem.

### MU7

Tony: But if you look at another issue on which they have been very speedy to make decisions, that is the whole arms deal (9) which is highly questionable. Then I was sort of thinking about priorities, you know what are the priorities here? I thought of ... if you need all these arms, there must be a massive enemy just over the horizon (10), and then I thought of course that a bigger enemy to me, and one that could cause far greater

**destabilisation to the present government, is poverty (11) rather than some vague enemy which might arise in the future (see Cartoon 6 in Appendix A).**

#### **MU8**

**Tony: So it made me think of the two issues – the one where the government was definitely failing to perform, and the other one where they were very quick.**

#### **MU9**

**Tony: I was thinking of the kind of images I wanted to use here. I always try to think of a symbol or a metaphor which is appropriate to the subject, like for example if I am thinking about the health services I like to use images or symbols which are associated with health like a hospital building or a figure of a person who is in a state of ill-health, or x-rays. If I want to say the health system is going to pot, I don't want to have a sinking ship, for example, because the image is inappropriate.**

#### **MU10**

**Tony: So here it is a question of delivery, and the obvious thing really in delivery ... I don't know whether this is entirely appropriate ... but delivering land ... it's a delivery van.**

**John: Now how did the thought of a delivery van come to you?**

**Tony: Well I think in the back of my mind there is this whole question of the government's tardiness in delivery in a whole lot of areas. And I know my colleague and fellow cartoonist, Jonathan Shapiro on the *Weekly Mail* and the *Sowetan*, he's got a little scooter, but I've always thought of it as a van being something which can pack more things so I mean that's a vehicle – a vehicle of ideas too – for delivery. I think that's something that I've used in several cartoons, this delivery van idea, which people might hopefully associate with.**

#### **MU11**

**John: And was that a sort of word association, or did you see it as a metaphor?**

**Tony: I think the word was connected ... *delivery*. Something that people can associate with. I mean you've got to set up some concrete image in people's minds, that's what you're doing. You try to devise the particular for the general, the concrete for the abstract. So that's my concrete symbol for that abstract idea of delivery.**

#### MU12

Tony: **In devising a cartoon, I am trying to think of something funny as well, because my particular style of cartooning leans towards the lampoon rather than the sombrely satirical. So I always try to think of something amusing, which isn't to be flippant about the whole issue, but just simply entertains and makes it more readable.**

#### MU13

Tony: **So I thought of the arms deal, and that to equate the two you'd have to have two delivery vehicles. And what more appropriate delivery vehicle could you have than a Mercedes Benz (12), particularly a 4x4 which people immediately associate with this whole issue of the arms deal. So the Mercedes Benz also reflects on the corruption. So it raises the question of why has the government been so speedy in delivering arms. Is it because there are people standing to benefit from it? Because I think that's the issue of that vehicle there, carrying a whole load of rockets, guns, armaments on the roof rack.**

#### MU14

John: **So was that (pointing to the broken down Land Delivery vehicle) the first part of the cartoon that came to you, as it were?**

Tony: **No, I think this was (pointing to the Arms Delivery vehicle). They're delivering that. Now I've got to have a vehicle for that, and I think I thought an appropriate military vehicle would be a Casspir or a Tank, something like that. And then I thought, no, wait a bit, the 4x4 is far more appropriate, because it brings another allusion into the whole thing.**

#### MU15

Tony: **And also it occurs to me that this 4x4 can move at great speed as well, that's why it's overtaken that land delivery truck (13), which has actually broken down. I didn't have any particular figure, I just had an anonymous figure which represents the government, sort of fiddling round with the innards (engine) of that thing ... the land delivery truck. But it's all systems go for arms delivery, and I took quite a lot of delight in using those comic devices of speed ... lines ... and dust and what have you. The car suspended ... flying over the surface of the road like that gives it the added impression of speed.**

## MU16

John: **It sounds as if this came to you gradually ... you had to work at it.**

Tony: **Yes, things do come like that. Sometimes you're lucky and something just comes to you, in a flash like that. You know that's a moment of happy inspiration. But most of these cartoons come as a result of quite a long process ... of associations.**

## MU17

John: **And was that one working away here at your desk, or did *part* of that occur to you more spontaneously one evening?**

Tony: **No, that was a process of sitting at that desk there and just thinking it out. People say "Do you draw the ideas, or do they develop ... ?" Not really, I think up the idea first, and I make a few scribbles ... but it's a process of conceptualising. Other people say to me, if I'm introduced as a cartoonist, "Is that all you do?" (laughter). They look at the cartoon and say that it must be great, to sit down and draw something.**

John: **They have no idea of all the thought and work you do. (Laughter).**

## MU18

Tony: **The process is the thing. You've got to feed in quite a lot of information, because I think that informs the cartoon as well. You should have a pretty good background idea of the facts pertaining to that particular issue, having cogitated about it and having thought it through. You know, and then go on to the conceptualisation of the cartoon itself. So all those things inform the cartoon. And I think your general attitude to things is pretty important.**

John: **That's a lovely cartoon.**

Tony: **I don't think there's much more I can say about that.**

John: **I don't think you need to. That's great. Thank you.**

I now turn to the broader *context* of Tony's experience, especially for those not familiar with these events in South Africa, around the remarkable transition to democracy. It might also be a useful *aide memoire* for some South Africans. I will seek to explicate the social, political and historical embedded quality of key terms and events referred to in this interview, by numbers in brackets.

## 4.5 The Context

Tony commented in the interview that “the first thing in the morning is to comb through the news in the *Cape Times*, because I focus more on the *Cape Times* because that’s what the readers are familiar with”. So the *Cape Times* is used as a source to explicate the socio-political-cultural context of key terms, as it relates directly to the cartoon used and gives clear contextual information and commentary about the events at the time at which the cartoon was produced. I am aware that this would not necessarily be part of the application of the existential-phenomenological methodology that has been selected, and yet it seems appropriate and hopefully helpful, as an *aide memoire*, as well as part of my own learning process in this preliminary study.

(1) **Removals.** These were not voluntary but were forced removals. It is estimated that between 1960 and 1982, 3.5 million people were victims of forced removals in South Africa. The *Cape Times* reported on 10<sup>th</sup> July 2001, the day that Tony’s Cartoon 5 appeared, that “Pretoria High Court Justice Carel Rabie heard final arguments on the government’s application for an interim order to have thousands of land invaders at Bredell, near Kempton Park, evicted from the land”.

(2) **Squatters.** They are defined in Encarta World English Dictionary as “illegal occupants of land or property”, but in the first world we think immediately of a squatter as somebody who takes over and lives in somebody else’s empty house. This situation in South Africa at the time was very different. It was estimated that 14 million people in South Africa are landless. The Congress of South African Trades Unions (COSATU) was reported in the *Cape Times* of 10<sup>th</sup> July 2001 as saying of the Bredell squatters that “their hunger for land and houses is a symptom of a crisis affecting thousands of poor landless people”. The counsel representing the squatters at the Pretoria High Court, according to the same report, argued that “returning the squatters to the ‘slums’ from which they had come, posed more of a health hazard than keeping them in the area of Bredell”. The *Cape Times* of 5<sup>th</sup> July 2001 reported that before being evicted from the site, 37 year-old chemist Mazibuko said he had come from the poverty-stricken Thembisa Settlement nearby, after learning that land was available for R25 per plot. “I am tired of sharing a house with eight people in my family. I have never had privacy and I think it is time to get my own place”. Mother of seven, Martha Mduli, 44, said it was unclear if the sale was legal, but she felt

that there was little to lose because the home shared in Thembisa had no electricity, running water or sanitation, and was cramped and cold.

(3) **Bredell.** The *Cape Times* of 10<sup>th</sup> July 2001 reported that “the saga started when Pan African Congress (PAC) members allocated people land in Bredell in exchange for a R25 fee”. The editorial of the *Cape Times* of 6<sup>th</sup> July 2001 stated that “the hundreds of acres of land being occupied by thousands of squatters belonged partly to parastatals, Transnet and Eskom, and partly to two farmers”. Tony, in conceiving Cartoon 5, was very aware that to some extent this was “public” land, and under the control of the Minister of Public Enterprises, which sharpened his sense of irony about the government having to remove the Bredell squatters from this land. See also cartoon 8 in Appendix A.

(4) **Apartheid Regime.** This was the way that the apartheid government and oppressive legislation were referred to by those involved in the struggle for justice in South Africa. The Defence Force during the apartheid years was always first and foremost an instrument of domestic policy, and the Police Force was very widely used to enforce unjust legislation.

(5) **Demolishing Shacks.** This activity was characteristic of the apartheid regime in order to enforce the unjust Group Areas Act. It was usually done in a ruthless and heartless manner, frequently during the rainy season and often starting in the very early hours of the morning before people were awake. Housing lies at the core of the new government’s Reconstruction and Development Programme (RDP). The urban housing backlog was estimated in 2001 at 1,4 million units.

(6) **Letter of the Law.** This refers not to the letter of the apartheid legislation, but by contrast to just laws to protect land and property. The *Cape Times* of 9<sup>th</sup> July 2001 reported that the ANC spokesperson, Smuts Ngonyana, appealed to South Africans to see the PAC as “an organization of agents provocateurs, masquerading as a caring liberation movement when they are hypocrites...who jump at the...opportunity to exploit the plight of our people with the sole purpose of lining their own pockets”. The sensitivity of the issue and the importance of the “letter of the law” was emphasized by President Thabo Mbeki’s spokesperson, Bheki Khumalo, who underlined that “the government would not tolerate illegal land invasions. This is not a

banana republic” with an obvious allusion to the situation in neighbouring Zimbabwe. See also cartoon 7 in Appendix A.

(7) **Land Question.** In the *Cape Times* of 9<sup>th</sup> July 2001 it was reported that the PAC announced it would convene a Land Summit, as it had given up hope that the government would prioritise the land issue. The crucial importance of this issue was clearly illustrated by the fact that the Pretoria High Court trial hearing final arguments on the government’s application for an interim order to have squatters evicted from the land on 10<sup>th</sup> July 2001, was marked, according to the *Cape Times* of the same date, by the attendance of senior government representatives, namely Safety and Security Minister, Steve Tshewete, and Agriculture and Land Affair Minister, Thoko Didiza. PAC Chief Whip, Patricia de Lille, said “the ANC is so used to blaming apartheid, capitalism and the PAC, that it forgets it is in power. It has failed to put in place a proper land policy. There is no comparison between us and Zimbabwe, but we should take note of (events) there. The government must make land reform a priority and not buying arms and building an elite”.

(8) **Urbanisation.** The worldwide process of urbanisation has been distorted in South Africa as a result of the Group Areas Act, reserving historic and developed urban areas for Whites, so the natural process of urbanisation was criminalised for the majority of the South African population. With the abolishment of apartheid legislation there had naturally been a tidal wave of previously historically disadvantaged people flooding to better-resourced urban areas.

(9) **Arms Deal.** The main components of the Arms Deal were three submarines and four 25,000 ton corvettes for the Navy; thirty light utility helicopters and big G-6 guns for the Army; Rooivolk helicopters and twenty-four Hawk lead-in fighter Pilatus trainers and twenty-eight Grippin advanced fighter aircraft for the Airforce. The significance of this Arms Deal needs to be seen against the background of the Police and Defence Force being used against the National Party’s political foes inside the country, as well as de-stabilising neighbouring countries in bloody cross-border raids. In addition to this, there were phenomenal budgetary increases to the military, particularly under P.W. Botha. As the time of Tony’s Cartoon 5, heated discussions were taking place prior to the first day of the Public Hearings into the controversial R43 billion arms deal in Pretoria, under the chairmanship of Public Protector, Selby Baqua. It began on 12<sup>th</sup> July 2001 and was scheduled to last for several months. The *Cape Times* of 20<sup>th</sup> June 2001

reported that the Public Protector, the National Directorate of Public Prosecutions, and the Auditor General's office were then investigating between forty and fifty allegations of wrongdoing in the Arms Deal at the request of parliament's watchdog Public Accounts Committee.

(10) **Enemy Just Over the Horizon.** The duplicitously-named Civil Co-operation Bureau (CCB) specialised in the assassination of apartheid's opponents, within and outside the country. Ironically, despite the urgency and massive financial implications of the Arms Deal, the National Intelligence Agency was unable to identify a single obvious or clear military enemy, or threat to South Africa, in the continent. See also cartoon **6** in Appendix **A**.

(11) **Poverty.** Unemployment was estimated to be more than 40% of the economically-active population. Disparity in income, still largely racially based, was among the greatest in the world. On the 2<sup>nd</sup> July 2001, South Africa's churches, the AIDS Treatment Campaign, Trade Unions, and voluntary sector bodies, launched a campaign for R100 per month grant to the 25 million people (that is, half the total population) estimated to be living below the poverty line.

(12) **Mercedes Benz 4x4.** In the *Cape Times* of 9<sup>th</sup> May 2001 the front page news heading was: "Yengeni should face probe into his 4x4, says Registrar". On page 4 of the same edition, it was reported that the European Aeronautic Defence and Space Company (EADS) admitted it facilitated special deals on Mercedes Benz motor vehicles to at least 30 prominent South Africans, and that it provided ANC Chief Whip, Tony Yengeni, with a 4x4 Mercedes Benz while he was Chair of Parliament's Joint Committee on Defence. In the light of the fact that previous decisions were reversed and German frigates and submarines were purchased, the symbolism of a German Mercedes Benz is powerful. It should also be noted that expensive off-road vehicles, of which the Mercedes 4x4 is a classic example, are often status symbols of the very wealthy, are sometimes used to intimidate other road users, and frequently never go off-road except to mount the pavement to get into a parking space in Cape Town.

(13) **Land Delivery.** The *Cape Times* of 6<sup>th</sup> July 2001 reports Idasa's analyst, Sean Jacobs, as saying "the government is still a long way from achieving its reform targets set in 1994, and adjusted last year (2000). Of 65,000 claims for restitution lodged, only 12,000 have been settled". According to statistics provided by the Department of Land Affairs, just 2% of the land had been transferred to claimants by January 2001. This was in stark contrast to the

government's 1994 Land Reform Target set out in RDP, to transfer 30% of land within a 5-year period. In March 2000, Land Affairs Minister, Thoko Didiza, said the target was unrealistic, promising the transfer of 15% of land by 2005. Hence the comment by Tony of a figure "fiddling round with the innards (engine)" of the land delivery vehicle in Cartoon 5.

## 4.6 The Verbal Text

As a result of working with the verbal material of this interview as a preliminary study, I learned some valuable lessons which are enumerated below.

(1) In reviewing the interview, I became aware of the richness and bewildering variety of the material and wasn't sure how to handle it, so took the decision to focus on the *verbal text* given in section 4.5, relating to Tony's description of just one cartoon, namely Cartoon 5, which we had selected together.

(2) I found it helpful to read the written text of the protocol out loud, rather than silently to myself, while entering imaginatively into the participant's way-of-being-in-the-world, and tuning in empathically to the lived experience of insight being described.

(3) Despite narrowing the field as described in point 1, it dawned on me that I had underestimated the density of this material and initially demarcated just five MUs (step 2). Becoming more familiar with the subtle shifts of meaning, I increased the number of MUs three-fold to eighteen, as indicated in the text. This enabled me to work in a more focused way.

(4) In attempting to articulate the meaning that dominates each MU (step 3), I was initially trying to be too comprehensive and not sufficiently simple and concise. As a result, I was tending to anticipate the next step in the process of interrogating the MU.

(5) I also experienced difficulty, in step 4, in finding the right psychological language in which to express my understanding of the *what* and the *how* of the process. It was a relief to read Giorgi (1985, p. 19): "A major obstacle for the process is the fact that there is no already established consensual psychological language". So, with relief, like most existential-phenomenological psychological studies, and in particular following Todres (1990, p. 87), I adopted non-technical,

everyday language to describe how a person in such a situation is feeling, thinking, acting, imagining and relating.

(6) A further difficulty I experienced in step 4 was remaining ‘bracketed’ with the *what* and the *how* questions, perhaps partly because, in the words of my supervisor, “the cartoons are so seductive because they say so much at a glance that one would easily be distracted at the tedious task of chipping away at the core meaning structure”. But it was also because I tended to understand the *how* in terms of requiring an explanation in hermeneutic rather than phenomenological terms. This resulted in a tendency to include information and knowledge not contained in the text, because of my relationship with Tony and involvement in some of the events he was describing. This continued to be a problematic issue with other research participants, and I will return to it in those contexts to reflect on it in greater depth.

(7) Despite this weakness, in working with step 4, I became increasingly aware of the discerning and refining power of each of these steps in the phenomenological method and process. It was not quick or easy, in fact it was slow and painful; but that seemed an inescapable and essential element in the learning process for me, as the two questions of the *what* and the *how* were addressed.

(8) It may be noted that steps 3 and 4 are not in fact included in this preliminary study. The reason is that our home was burgled and among many other things the laptop was stolen. These particular steps, 3 and 4, were the only material that could not be recovered from the memory stick or hard copy. As a result I learned to be much more conscientious about backing-up.

(9) For some time, I experienced considerable confusion with applying the methodology, which was clearly developed to explicate verbal descriptions, to the visual text of the cartoons themselves. I wondered whether I had been foolishly ambitious in attempting to explicate the experience of insight embedded not only in words, but in such seductive cartoons, depicting such fascinating social and political commentary? Was it madness to attempt this in a preliminary study? Probably, but with advice from supervisors I decided that the only way forward was to consider the verbal text, the visual text and the context in turn, but in terms of one another.

(9) Initially I struggled with the issue of time in seeking to explicate the SSS (step 5) because I found it difficult to find a clear *linear* progression in the process. So it was a significant part of the learning process to apply in practice the phenomenological understanding of the “unity of times three dimensions”, which in Heidegger’s (1972, p. 15) words, “consist in the interplay of

each towards each”. In the end, I expressed the SSS in a series of present tenses which inter-relate and connect back and forth, as explained in the next section.

#### 4.7 The Situated Structural Statement

The SSS is expressed in terms of essential, non-redundant, psychological meanings. These meanings are given in a bulleted list because they are not related in a linear or necessarily sequential manner. The present tenses, picked out in bold, demonstrate the way in which aspects of Tony’s process of searching for insight inter-relate and connect back and forth.

- **Scanning** news to gather information and raw material for insight (MU2).
- **Selecting** an issue about which the subject feels passionately (MUs2-3).
- **Exploring** different perspectives of that issue (MUs3-6).
- **Juxtaposing** that issue with other issues, events and priorities (MUs7,15).
- **Conceptualising** what the subject wants to express as an insight (MUs8,17-18).
- **Imagining** appropriate visual symbols, images, ideas and metaphors or words for the insight (MUs9-11).
- **Searching** for something funny that gels as part of the insight (MU12).
- **Experiencing** insight, usually through a long process of associations which may emerge at any stage, either gradually and partially as a series of little insights, or suddenly and more completely formed as a flash of happy inspiration or insight (MUs13-17).
- **Expressing** insight in cartoon form which may trigger further associations or allusions (MU15).
- **Celebrating** the gestalt experience of insight, both at the time of expressing it and afterwards in reflection (MU15).

I have already touched on the seductive quality of the cartoons because they say so much at a glance. So it is to this visual text that I now turn, aware that it is often said that a picture is worth a thousand words. I am aware that at this point the usual application of the methodology is being extended, but it would be patently absurd not to focus on the cartoon itself.

## 4.8 The Visual Text

In the verbal text, considered as the basis for the work on the meaning units, I drew extensively on Tony's specific comments about this particular Cartoon 5 in the qualitative research interview.

Now, in attempting to read the cartoon as text, it is necessary to step back and to get a different and broader perspective by considering this particular cartoon in the light of Tony's general comments about his work as a cartoonist in the qualitative research interview. Here I am also drawing on material in the interview (recorded in Appendix A) which was not considered directly relevant for inclusion in the text for the meaning units. I will attempt this under five themes: cartoons in opposition as an all-or-nothing statement, intended subtlety, unintended interpretations, and play on words. This will be done focusing on Cartoon 5, but illustrating some of the points with other cartoons and material from the extended interview.

Firstly, the theme of opposition: Tony says "cartoons are at their best when they are in opposition" (Appendix A). Clearly Cartoon 5 is intended to be read as a strong statement in opposition to both the speedy delivery of arms, and in contrast to that and therefore strengthening the sense of opposition, the slow delivery of land. Tony goes further: it is not just *cartoons* that are at their best when they are in opposition; the *cartoonist* is at his/her best when passionately opposed. He asserts that during "the apartheid era I found I was at my best, because I felt that I was very much more passionate about issues at stake then. The injustice was horrendous, the folly being pursued by the government at the time was absolutely unbelievable, and I think professionally speaking it was my most inspirational period" (Appendix A). Tony's passion, his anger at injustice, his love for his country and people, as well as his enthusiasm for life and all that is life-enhancing, raises his level of awareness, focuses his thought process, fires his imagination and sharpens his wit and insight. This passion is clearly evident as the source of creative energy in the process of conceptualising Cartoon 5 (as expressed in the verbal text) as well as in the artistic expression and execution of the cartoon (the visual text). As he says, "it's all systems go for arms delivery, and I took quite a lot of delight in using those comic devices of speed ... lines and dust and what-have-you. The car suspended ... flying over the surface of the road like that gives it the added impression of speed" (MU15).

Significantly, the experience of insight forming Cartoon 5 and its sub-text contains *opposition*, expressed by Tony, on at least three different levels, cognitive, behavioural and affective:

- opposition is expressed about problems of political "delivery"; the cartoon is conceptualised at a cognitive level.
- opposition is strengthened by contrasting the slow delivery of land with the speedy delivery of arms; the cartoon articulates a behavioural level.
- opposition is further strengthened and asserted passionately by the artist's "delight in using those comic devices of speed"; the cartoon expresses an affective level.

Secondly, the theme of all-or-nothing: Tony says "a cartoon is a very all-or-nothing statement ... you can't enlarge on the topic, and explain it ... yes, a single-frame photograph, and you can't fudge it around with explanations, ifs and buts, all that sort of thing" (Appendix A). Press and sports photographers are notorious for taking hundreds of shots of which only one may be printed and appear in the paper. In comparing a cartoon to a single-frame photograph, Tony emphasises how many potential cartoons end up on the cutting room floor.

Let me illustrate this by a private conversation I had a number of years ago with the person who devised the brilliant logo for British Rail, shown here in

Figure 13, alongside. I was teasing him, in a good-natured way as a friend, for being "paid so much for doing so little ... just a few lines". "That's the point", he said. "They didn't pay me for drawing those lines;

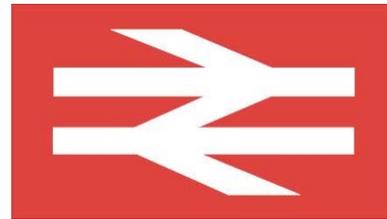


Figure 13. British Rail Logo

*they paid me for all the lines I didn't put in!*"... all the unnecessary lines which would have cluttered it up and spoilt the *simplicity* and *power* of it. The logo, like the cartoon, is an "all-or-nothing statement".

Tony reflects on no less than four different possibilities of the issues that he could have expressed in a cartoon focussing on Tony Yengeni in Appendix A:

- The cheap price of the Mercedes and the abuse of Yengeni's parliamentary position.
- The full-page advertisement in the press justifying his position to the public at an estimated cost of R250 000.
- Yengeni's responsibility to parliament as Chief Whip.

- Finally, whether to focus on the European Aeronautical Defence Systems Company (EADS) who made the bribes, rather than on Yengeni himself, before deciding which way to go.

So, one can see how many possibilities ended up on the cutting room floor. In this process there is not only passion but also pain; not only creation but also exclusion. In section 4.5, the text of Tony's lived experience of insight, one can trace in some detail the complex process behind Cartoon 5.

Clearly Cartoon 5 is a powerful "all-or-nothing statement" about the speed of arms delivery compared to the delivery of land which is at a standstill with engine problems on the side of the road. Doubtless the Minister of Land Affairs would be enraged by such an "overstatement". Part of the power of cartoons is to provoke reactions, raise questions and stimulate debate. As Tony, commenting on Cartoon 5, put it: "the Mercedes Benz also reflects on the corruption, so it *raises the question* of why has the government been so speedy in delivering arms. Is it because there are people standing to benefit from it, because I think that's the issue of that vehicle there, carrying a whole load of rockets, guns, armaments on the roof rack" (MU13).

Thirdly, the theme of intended subtlety, symbol, allusion and association: despite the fact that a cartoon is an "all-or-nothing statement", Tony asserts that "hopefully cartoons are fairly subtle. At least, I hope the cartoons I devise can be *read on these different levels*" (Appendix A). As we were discussing the creation of this Cartoon 5, Tony pointed to the land delivery van saying, "I think that's something that I've used in several cartoons, this delivery van idea, which people might hopefully associate with" (MU10). Later in the interview, I asked, "So was that (pointing to the broken-down land delivery vehicle) the *first* part of the cartoon that came to you?"... *assuming* that he was working *from the known* and familiar "van" *to the unknown*, and new "Mercedes Benz vehicle". I was surprised when he replied "No, I think *this* was (pointing to the arms delivery vehicle). They're delivering that. Now I've got to have a vehicle for that ... an appropriate military vehicle would be a Caspir or a Tank, something like that. And then I thought, no, wait a bit, the 4x4 is far more appropriate, because it brings another allusion into the whole thing. And also it occurs to me that this 4x4 can move at great speed as well, that's why it has overtaken that land delivery truck which has actually broken down ... " (MUs14-15).

Fourthly, the theme of unintended interpretation of the cartoon by the person ‘reading’ it. Tony explained in the interview that there was a rock in Namibia known as “The Finger of God”, which was gradually eroded and finally fell as a result of an earthquake. PW Botha was renowned for aggressively wagging his finger as he admonished people ... and here it collapses as he fulminates about the Soweto Uprising (see Cartoon 3. Appendix A). After seeing this cartoon the Director of Cape Flats Distress Association (CAFDA) said to Tony, “How did you get away with that cartoon?” Tony responded, “What do you mean, what was so different about that cartoon that was more actionable than any other cartoons I’ve done?” “Well”, he said “the allusion was to the Finger of God, and that PW Botha thought that he was God”. Tony mused: “It struck me as quite appropriate, though I didn’t think of it consciously, perhaps unconsciously ... the thought might have occurred to me, that the Finger of God was how PW thought of himself” (Appendix A).

That of course, is precisely why the cartoon is so powerful, compared with the written word, because it is very difficult to prove in a Court of Law that Tony had that particular association in mind at the time.

To take another example, when I look at Cartoon 5, I am immediately struck by “LAND DELIVERY” printed on the side of the van where there are no windows, so one cannot easily see in to check the contents of the van. For me, it is a subtle statement about the lack of transparency of the process in addition to the slow delivery of land. Yet at no point does Tony mention this detail; in fact, in subsequent conversation he assured me it was not his conscious intention, so here is another small example of the way that this cartoon makes links and associations in a person's mind. In Tony's own words, "it's the allusion and the parody which people read into things" (Appendix A).

The Mercedes Benz 4x4 has not only become a symbol of corruption in relation to the arms deal, but at other levels 4x4s are often status symbols of the very wealthy, and are sometimes used to intimidate other road users. So there are associations at the level of political and economic corruption, as well as in terms of image, power and prestige. Perhaps the Mercedes Benz 4x4 in Cartoon 5, although *on road* at present, also says, "I can go anywhere, *off-road*, and do anything". It was, after all, drawn before Tony Yengeni, the ANC Chief Whip, had ended up in

jail for corruption in relation to the purchase of this very vehicle. So clearly cartoons like this one "can be read at these different levels" (Appendix A).

Fifthly, and finally, the theme of the relationship between the visual text and play on words: as Tony expressed it in the interview: "I have an advantage of working as a cartoonist in the English language, because the English language is so nuanced; so much ambiguity in it. It's a language that is just made for punning. People say that punning is a feeble sense of humour, but it works incredibly well for cartoons, because you can make all sorts of allusions with the use of puns" (Appendix A).

A particularly clear example of this is cartoon 9 (in Appendix A), where Helen Susman, the iconic opposition Member of Parliament is saying, "What's going on in Lebowa?" and the response is "That's their funeral". People were being killed by the police and the Minister of Justice (Louis Le Grange) was not taking any notice at all – he was just allowing people to bury their dead and not investigating how people died. So Tony concludes: "And I'm sorry to say that *'that's their funeral'* is an appropriate phrase in English to use" (Appendix A).

So in relation to Cartoon 5, I asked Tony, "How did the thought of the delivery van come to you?" He responded, "I've always thought of it as a van being something which can pack more things, so I mean that's a vehicle - a vehicle of ideas too - for delivery ... this delivery van ... I think the word was connected ... *delivery*. Something that people can associate with. I mean you've got to set up some concrete image in people's minds, that's what you're doing. You try to devise the particular for the general, the concrete for the abstract. So that's my concrete symbol for that abstract idea of delivery" (MU10 & 11).

In this preliminary study I have sought to understand Tony's description of his experience of gaining insight for his cartoons in the *verbal text* of the interview, before turning to the broader *context* of these cartoons in terms of socio-political events in South Africa. I then attempted to explicate Tony's unfolding experience of insight in the creation of his cartoons, the *visual text*, as well as the associations and insights that the cartoon prompts for the person viewing or 'reading' it.

#### 4.10 Closing Comments

As I draw this chapter to a close I want to record that at this stage of the research three things were becoming increasingly clear to me:

First, that insight, in Tony's experience at least, is not just the heady, conceptual, intellectual notion, that it is often portrayed as in the Western scientific orientated view. In his experience, it includes passionate feelings, imagination, playfulness, humour, associations, puns, images, metaphors, allusions, artistic ability and more. These non-rational components seem to be as important as the more rational components of scanning news, selection, conceptualisation, verbal dexterity and so forth.

Second, that insight in Tony's experience cannot be isolated and identified as occurring in a single moment; it is embedded like links within a chain. It is not even a straight linear chain; there are all kinds of twists, loops, kinks, and even broken links in it. In Richard Alapack's delightful play on words: you "catch" it at work in his experience; you do not "find" it under the microscope. Therefore the process of focusing narrowly on the *moment* of insight does not seem to do justice to the broader "lived experience" of insight. It is not, as Tony puts it, a "9 to 5 job".

Third, that at the time I felt perplexed and stuck; I didn't have sufficient understanding of existential phenomenology's three ecstasies of time to do justice to the lived reality and complexity of Tony's experience of insight. That was to become much clearer later (see section 7.6).

I recognise that this has been an unusual preliminary study, both in terms of length and variety, with the three dimensions of *verbal text, context and visual text*. However, for me it has been a valuable and rewarding experience, both because of the quality of Tony's material and because of the important learning process. So I wish to submit that it has achieved its purpose as a preliminary study, as well as meriting inclusion with the other three studies that follow, providing a rich variety of four experiences of insight.

## CHAPTER 5

# THE INVESTIGATION AND FINDINGS

### 5.1 Introduction

In this chapter, after the four research participants have been introduced, all aspects of the investigation and results of all the research participants will be addressed. This is in contrast to the prevailing custom of presenting the full investigation and results of just one research participant, followed by the results only of the other research participants, with their investigation material relegated to various appendices.

There are essentially three reasons for this decision: *First*, it is inherently uneven, in my view, not to treat all the research participants' material in the same way, by giving more exposure to one than the others. It may be tempting to 'cherry pick' the investigation of one research participant and then, to some extent, attempt to 'hide' less convincing research work in appendices. *Second*, it is inherently clearer and easier to compare the investigations and check the results if they are all together in the same chapter rather than distributed through a number of appendices, in which the original descriptions are separated from the findings. This is a particularly pertinent point in an existential-phenomenological study given the phenomenologists' rallying cry of "back to the things themselves". *Third*, it is inherently limiting, in my considered opinion, to use conventional tables demonstrating different steps of the research process. This is because it is not possible to view more than two steps of the process side by side, because of the amount of text involved. The result is that it is not easy to see and follow the flow from one table to the next.

In order to give effect to these considerations, a different way of displaying the investigation and results has been designed. For each research participant, the presentation of the investigation and results will follow the same pattern of steps referred to in the methodology of Chapter 3, immediately under one another, thus:

- Step 1** Obtaining a sense of each transcribed description as a whole experience.
- Step 2** Discerning and numbering meaning units (MUs).
- Step 3** Stating the meaning that dominates each meaning unit. This is a transformed meaning unit (TMU).
- Step 4** Interrogating each transformed meaning unit describing the structure – the *what?* – and the style – the *how?* – of the experience. This is the interrogated transformed meaning unit (ITMU).
- Steps 2 – 4** are repeated for each meaning unit of the research interview.
- Step 5** Synthesising these ITMUs into a descriptive situated structural statement (SSS). This will be displayed at the conclusion of each research participant’s material. The investigation and findings of all the research participants are presented.
- Step 6** Developing from the SSSs of all the research participants together, rather than individually, a general structural statement (GSS), which is equivalent to the previously mentioned Step 7, elucidating a comprehensive structural statement of the experience of insight.

## 5.2 The Research Participants

- **Desmond Tutu** is the Archbishop Emeritus of Cape Town and Nobel Peace Prize Winner. He was Chair of South Africa’s Truth and Reconciliation Commission. He is deeply respected for his spirituality, humour and speaking the truth to power, both to the apartheid government and to the new democratically elected government, as well as being the voice of the voiceless. This research focuses on his experience of insight in opposing apartheid immediately preceding the Soweto Uprising of 1976 (5.3).
- **Debbie Brown** (a pseudonym) is an area bank manager, wife and mother. This research focuses on her experience of insight as she faces the question of how to respond to her husband’s infidelity (5.4).
- **Roger Penrose** is the Emeritus Rouse Professor of Mathematics at Oxford University and a distinguished cosmologist. He has been knighted and is the recipient of many awards for his scientific work, including frequent collaborations with Stephen Hawking. This research focuses

on his experience of insight as he was wrestling with the question of what happens in a black hole (5.5).

- **Tony Grogan** is the well-known cartoonist for the newspaper the *Cape Times*, and a highly respected artist. He has already been introduced as the research participant in chapter 4, the preliminary study. He is included in this list for the sake of completeness. This research focuses on his experience of insight in the process of constructing a cartoon. The results of the investigation of that preliminary study will be considered in the context of the synthesis into a general structural statement (GSS) of the experience of insight of all the research participants (in sections 4.5 & 4.7).

### 5.3 The Investigation of Desmond's Experience of Insight

In this section Steps 2 - 4 in the methodology will be completed. The text of the transcribed interview is in bold, in order to make a clear distinction between it and the comments upon it.

#### Step 2 MU1

John: **Thank you for this opportunity to ask you about your experience of insight or intuition, as you prefer to call it. I'd be particularly interested, as I said in my letter, to ask about your experience of insight during the 5-day clergy retreat in Johannesburg in May 1976, which culminated in your letter to the Prime Minister, John Vorster. You described it in that letter as your "growing nightmarish fear that unless something drastic is done very soon then bloodshed and violence are going to happen in South Africa almost inevitably", and that was just five weeks before the Soweto Uprising of 16<sup>th</sup> June 1976. Is that something that you could talk about?**

#### Step 3 TMU1

Researcher asks subject about his experience of insight or intuition during a retreat which resulted in writing to the Prime Minister, warning of bloodshed and violence just five weeks before the Soweto Uprising of 16<sup>th</sup> June 1976.



#### **Step 4 ITMU1**

*What?* Desmond writes a letter to the Prime Minister expressing his “growing nightmarish fear” that unless drastic changes are made to the injustices of the apartheid system bloodshed and violence will erupt.

*How?* This letter came as a result of an insight or intuition during a 5-day retreat, five weeks before the Soweto Uprising of 1976.

#### **Step 2 MU 2**

Desmond: **Yes and no. I’m not quite sure how much detail one has, that one can share with you.**

John: **I understand that because it was a long time ago. But perhaps you could describe in as much detail as you can remember your particular lived experience; the context and what happened before, during and after your insight; what you thought, felt and did?**

#### **Step 3 TMU2**

Desmond is ambivalent; he is not sure how much detail he has that he can share about his experience of insight.

#### **Step 4 ITMU2**

*What?* Desmond’s uncertainty is not about sharing the experience - he readily agreed to the interview - but how much detail he has that he can share.

*How?* Desmond’s shift from the personal “I” to the more general “one” may be an indication of humility acknowledging a mysterious element and that it was primarily an experience of the divine.

#### **Step 2 MU3**

Desmond: I think that I was not peculiar at the time in being deeply concerned and very apprehensive, living as we did in Soweto and being aware of how people were feeling about “the system”.

#### **Step 3 TMU3**

Living in Soweto Desmond was aware of, and deeply concerned about, how Black people felt about the apartheid system. This made him apprehensive about where it would all lead.

#### **Step 4 ITMU3**

*What?* Living in Soweto Desmond was not only aware of, but in many ways shared in, the Black community's experience of systematic apartheid oppression. He recognises that other people were also concerned about where it would all lead, but he acknowledges that he was very apprehensive.

*How?* Desmond had deliberately chosen to live in Soweto and identify with the Black community there. So he experienced, witnessed and empathised with Black peoples' feelings about the apartheid system. This made him not just concerned, as some others were, but very apprehensive about where it would all lead.

#### **Step 2 MU4**

Desmond: You know, the squalor, the deprivation, the daily humiliations that happened.

#### **Step 3 TMU4**

Desmond refers to the appalling physical conditions, the deprivation and the daily psychological humiliations which Black people experienced under apartheid.

#### **Step 4 ITMU4**

*What?* Desmond is aware of the multi-dimensional, all encompassing nature of the system of apartheid; he refers to the physical conditions, educational and other deprivations, and also the daily psychological humiliations.

*How?* Because Desmond had chosen to live and identify with the Black community, rather than become an 'honorary White' in the Deanery in the White Group Area of Johannesburg, he experienced, witnessed, empathised and stood in solidarity with Black peoples' experience under the system of apartheid.

#### **Step 2 MU5**

Desmond: ... and just wondering actually where the heck was God in all of this ...

#### **Step 3 TMU5**

Desmond wrestled particularly with the theological, spiritual and moral questions of where on earth was God in all of this.

#### **Step 4 ITMU5**

*What?* Desmond wrestled with profound issues of theodicy, spirituality and moral outrage about how God could allow this indignity, injustice and oppression.

*How?* Desmond's wrestling with these issues was essential for his own humanity, spirituality and integrity at a personal level, both crucial for his position in the church proclaiming, contrary to the ideology of apartheid, that we are all created equal in the image of God, and vital for his recognition as a spokesman for the Black community becoming increasingly desperate under the apartheid regime.

## **Step 2 MU6**

Desmond: ... **and in a particular way the young people, the students, in the schools who were niggled by the fact that Afrikaans was being rammed down their throats, and at the time seen as the language of the oppressor. Here was the oppressor not just insisting that you learnt their language but pushing your nose into the dust. This oppression, deprivation and daily psychological humiliation was experienced in a particular way by students as a result of being deprived of their own language as the medium of instruction in schools, and being forced to use Afrikaans – the language of the oppressor.**

## **Step 3 TMU6**

This oppression, deprivation and daily psychological humiliation was experienced in a particular way by students as a result of being deprived of their own language as the medium of instruction in schools, and being forced to use Afrikaans – the language of the oppressor.

## **Step 4 ITMU6**

*What?* Desmond, using vivid descriptive images, cites the enforcement of Afrikaans as the medium of instruction as a symbolic example of humiliation: “the oppressor not just insisting that you learn their language but pushing your nose into the dust”.

*How?* Desmond has a particular affinity with young people, and empathy with their struggles. It is significant that he uses such colourful language as “rammed down their throats” and “pushing your nose into the dust”, for this not only portrays the absolute power of the oppressor, but also vividly captures the difficulty for the oppressed of breathing with dust in your nose ... of just surviving ... because it was precisely this humiliation over Afrikaans as the medium of instruction that was to emerge as the catalyst for the uprising.

## Step 2 MU7

Desmond: **I think that there had also been one or two meetings which some of the leadership in the Township had held in our house, because our house is about a hundred or so metres away from the old Mandela house. They often had meetings with Winnie in her house, but sometimes they thought the police were watching, and used our house on one or two occasions ...**

## Step 3 TMU7

There were often meetings of the leadership in Soweto at the Mandela house. On a few occasions, because of police surveillance, these were switched to the Tutus' house because they lived nearby.

## Step 4 ITMU7

*What?* Desmond knew about meetings of the leadership in Soweto, and very occasionally they took place in his house, because of police surveillance.

*How?* Desmond was supportive of these meetings, but not directly involved.

## Step 2 MU8

Desmond: **... you mustn't think that we were in the front line in that kind of way.**

## Step 3 TMU8

Desmond is concerned that the conclusion should not be drawn that they were involved in the leadership meetings or in frontline political activity, like Winnie Mandela.

## Step 4 ITMU8

*What?* Desmond was not involved in the leadership meetings or in frontline political activity.

*How?* So he had no inside track on what the leadership in Soweto were planning which might have influenced his experience of insight, and did not see his role as primarily that of a political activist like Winnie Mandela.

## Step 2 MU9

Desmond: **I went into the retreat, which was for the clergy of the Diocese of Johannesburg, but I had just previously been elected Bishop of Lesotho which was a heart-rending thing for me at the time ... it was very odd, I didn't want to become Bishop of Lesotho.**<sup>25</sup>

---

<sup>25</sup> Lesotho is a separate mountainous Kingdom, within but not part of, the Republic of South Africa. So if Desmond became the Bishop of Lesotho he would have no voice in apartheid South Africa

### Step 3 TMU9

The five-day silent retreat for the clergy had been arranged previously but it came at a very significant time for Desmond. Two months before he had been elected Bishop of Lesotho so was going to have to leave South Africa just as he realised issues were coming to a head under apartheid, so he felt profoundly reluctant and conflicted.

### Step 4 ITMU9

*What?* Desmond went into retreat feeling deeply conflicted at an intra-psychic level as well as at an interpersonal level. The prospect of leaving South Africa at a time of looming crisis under apartheid caused him intense sadness and distress. He did not want to become Bishop of Lesotho.

*How?* For someone to describe his election as Bishop as “heart-rending” is very revealing. It reveals not just Desmond’s reluctance to become Bishop of Lesotho but also his intense sadness, distress and sense of being torn apart. It was as if having to leave the land of his birth, at what he increasingly felt was such a critical time, was a betrayal of his own discernment and sense of vocation. It felt “heart-rending” at an affective and behavioural level. Perhaps it seemed “odd” at a cognitive level because it was at odds with thoughts that were beginning to take shape for him as a result of the increasing reaction in the Black community to the mounting pressure of the apartheid system; an awareness that would become an important part of his insight.

### Step 2 MU10

Desmond: **I didn’t want to leave the Diocese of Johannesburg, I didn’t want to leave the Cathedral.**

### Step 3 TMU10

Desmond went into retreat with the clergy of Johannesburg feeling strongly that he did not want to leave the Diocese of Johannesburg or the Cathedral.

### Step 4 ITMU10

*What?* Desmond went into retreat with his brother clergy aware that on a personal level he did not want to leave them. He was also conscious that he didn’t want to leave the Cathedral for strategic reasons.

*How?* Desmond went into retreat with his brother clergy aware that he valued his relationship with them at a deeply *personal* level and did not want to leave them. He was also conscious of the *strategic* position he had as Dean of the Cathedral with worshippers of all races, being in the

economic centre of the country. Despite all this, he had to leave for *ecclesiastical* reasons; so he went into retreat with a bewildering sense of loss.

### Step 2 MU11

Desmond: **So I went into this retreat in a welter of emotions, in my own personal situation being aware that I was going to have to leave, but also the deep sense of foreboding ... you felt, that the clouds were gathering.**

### Step 3 TMU11

Desmond went into retreat in a confused mass of surging and conflicting emotions, both at a *personal* level and because he was increasingly aware that things in the country were coming to a head.

### Step 4 ITMU11

*What?* In the weeks following Desmond's election as Bishop of Lesotho, leading up to the retreat, his unhappiness at having to leave the country grew rather than abated; he felt profoundly conflicted and had a sense of impending doom.

*How?* Desmond went into retreat in a confused mass of conflicting emotions, both at an intra-psychic, personal and interpersonal level, as well as at an ecclesiastical, strategic, human and national level because of apartheid. His inner turmoil was partly due to his own personal circumstances but it was also a reflection of the turmoil in the country about which he was so concerned and apprehensive. He realised that he *had* to leave the country in submission to the electoral process, but as he read the mood of the Black community he had a sense that the land of his birth was on the verge of an explosion. Yet instead of naturally owning his feeling by saying "I felt", or even "one felt", he expresses it rather awkwardly in terms of "you felt that the clouds were gathering".

### Step 2 MU12

Desmond: **I can't put it into words as to how you were feeling, I mean you went into the retreat ... but obviously you never know what God's going to do with you [laughing].**

### Step 3 TMU12

Desmond cannot articulate all the feelings that he had as he went into retreat ... not knowing what God would do with him.

#### Step 4 ITMU12

*What?* Desmond was torn apart by the fundamental question of ‘What is God’s will in all of this?’ On the one hand, there was the corporate decision of the Elective Assembly and on the other were his own personal feelings as well as his assessment of the political situation. Desmond could not articulate all his confused and conflicting feelings at the time. He went into the retreat in submission to God ... as he muses on it he adds “obviously you never know what God’s going to do with you [laughing]”.

*How?* There seems to be a transitional quality to his musing about this stage of his experience, reflected in the transition from the more personal and individual “I” to the more generalised and inclusive “you” in the same sentence, as if he could not completely understand his feelings or what happened to him in terms of his experience of insight on a personal level, because he sees it as God’s doing. Perhaps his use of “you” also reflects the more universal quality of the type of experience of insight that he is describing, as a result of God pouring out his Spirit on everyone, rather than claiming something unique.

#### Step2 MU13

Desmond: **And I wasn’t looking for any particular direction or focus ... I mean you are supposed to go into retreat expectantly, giving God this time that we hardly ever do, that God might take the chance of communicating ...**

#### Step 3 TMU13

Desmond went into the retreat without particular expectations, but trying to be generally expectant; to give God his whole time and attention and to be as open and available to God as possible, so that God might have a chance to communicate with him.

#### Step 4 ITMU13

*What?* Desmond did not go into retreat with particular expectations of God or projects of his own, or looking for any particular guidance. He wanted to give God his whole time and attention and to be open to hearing anything God might communicate.

*How?* Perhaps Desmond’s use of the word “supposed” indicates his awareness of his inner turmoil as he went into retreat, both in relation to his personal circumstances as well as his concern and apprehension about what was going on in the country. So it would not have been easy for him to lay aside his own agenda, concerns, tensions, emotions, distractions and questions in order to be “giving God this time that we hardly ever do”. In trying to give himself, his time

and his attention to God, Desmond was wanting to be expectant and open to any insight or word that God might communicate to him.

**Step 2** MU14

Desmond: ... **it seemed like a pressure from God.**

**Step 3** TMU14

Desmond experienced what seemed like a pressure from God.

**Step 4** ITMU14

*What?* Desmond, trying to stay both present and open to God, experienced what seemed like a pressure.

*How?* Desmond was, in faith, trying to be open and available to God and he experienced a shift in awareness ... it seemed like a pressure, an *impact*, a force that pressed steadily, pushed or urged, which seemed to be from God.

**Step 2** MU15

Desmond: **It doesn't seem rational at all ... it isn't anything that you can say categorically "I know that God said to me ..."**

John: **It would be very nice if it were that simple.**

**Step 3** TMU15

Desmond acknowledges that a "pressure" doesn't seem rational and you cannot be categorical about it being of God, or certain about what God is saying.

**Step 4** ITMU15

*What?* Desmond qualifies his evolving spiritual experience acknowledging that sensing a pressure does not seem rational in Western terminology, and that you cannot be categorical about it being of God, or certain about what God is saying.

*How?* Desmond acknowledges the limitations and questions that can be asked of his experience, but lets the reality of the sense of pressure be, just being aware of it rather than trying to control it or reject it as meaningless.

**Step 2** MU16

Desmond: **But it did seem that God was saying, or this particular pressure said, "Write"...**

John: **And that pressure, did it gradually build up during the 5-day retreat, or was there a particular point at which it crystallised for you?**

Desmond: **I think that it came almost instantaneously ... its effect on me was that “you have to do this”.**

**Step 3 TMU16**

Desmond firmly and clearly states that it did seem that God was saying “write”. It came fully formed, almost instantaneously as a categorical imperative.

**Step 4 ITMU16**

*What?* Desmond interrupts my comment, that it would be nice if it were simple, rational and ... by asserting firmly and definitely that it did seem that God, or this particular pressure, said “write”... it came fully formed, almost instantaneously, as a categorical imperative.

*How?* So despite acknowledging the rational limitations in terms of explaining and verifying his spiritual experience, Desmond is quite firm and definite about the fact, the significance, the meaning, the almost instantaneous nature and the categorical implications of his evolving experience of insight.

**Step 2 MU17**

Desmond: **... and I did something that we are told you mustn’t do in a retreat [guffaws of laughter]. I had not intended ... I had always tried to be obedient to this particular injunction, you are not supposed to be doing that kind of “work” thing. But this thing said “you are going to do it, you have to do it” and I hoped that if I was taken to task I would say “don’t blame me!” [laughing]. I couldn’t be disobedient to what seemed to me to be God saying “this is what you are to do”.**

**Step 3 TMU17**

This categorical imperative to “write” over-rode the normal rules of a retreat forbidding “work”, which Desmond greatly respected and always tried to obey. But he could not be disobedient to what God seemed to be saying.

**Step 4 ITMU17**

*What?* Desmond is aware of not complying with the expected norms of retreat practice. The incongruity and humour of disobeying the normal rules of retreat about not working, in order to obey this insistent pressure to write, is vivid for Desmond.

*How?* Contrary to Desmond's normal respect for, and obedience of, the rules of retreat about not working, he experienced the insight to write as an insistent pressure "you are going to do it, you have to do it". He remembers himself almost like a defiant schoolboy being caught out, breaking the rules and saying "don't blame me!" He can enjoy joking and laughing about it because he is aware that it is only a superficial or apparent contradiction of the *letter* of the law; the *spirit* of the rules of retreat is precisely to help a person to come to place of hearing, trusting and obeying God, which is exactly what he was doing, so that the underlying purpose of the rules was being fulfilled. So in that respect it is a healthy playfulness and defiance. He could not be disobedient to what seemed to him to be God saying "this is what you are to do", and so that is why he says "don't blame me".

### **Step 2 MU18**

Desmond: **And it is horribly presumptuous, isn't it? It is incredibly frightening, because what do you say to justify that it is from God, and we all know how the Old Testament especially is full of strictures against false prophets ... how are you able to distinguish between what is genuinely from God and what is merely personal predilections, or you're wanting just to do your thing and to stand out.**

### **Step 3 TMU18**

Despite his clarity about his own experience of intuition or insight, Desmond is acutely aware of the dangers of presumption, the issues of credibility, and the importance of discernment.

### **Step 4 ITMU18**

*What?* Desmond does not answer these questions about the dangers of presumption, the issues of credibility, the importance of discerning authenticity, and the difficulty of verifying what is genuinely from God and what is a personal preference or ambition, but he is acutely aware of them in relation to his experience of insight. He openly and repeatedly articulates them.

*How?* Desmond's awareness of and willingness to raise these epistemological questions assists him to make a realistic appraisal of his own experience of insight. He is very conscious that true prophetic insight is a matter of discerning faith and obedience, rather than claiming complete certainty of divine inspiration.

### **Step 2 MU19**

**John: Was there a particular point at which you knew you had to do this?**

**Desmond: I can't quite recall clearly but it seemed to me once it came, then it was there, you know, there wasn't a matter of any self-doubt ...**

### **Step 3 TMU19**

Desmond can not recall exactly when his experience of insight occurred on the retreat but when it came it was there; there was not any self-doubt about it.

### **Step 4 ITMU19**

*What?* Despite Desmond's awareness and articulation of the dangers of presumption, issues of credibility, importance of authenticity and the difficulty of discerning motives and verifying the genuineness of his experience of insight, he affirms the clear and strong existential quality of his experience: it was "there", there wasn't any self-doubt.

*How?* Desmond cannot recall a particular time or trigger for this experience of insight. Five days of silent, prayerful retreat is significant quality time and there may well have been a gradual settling of the inner turmoil and tension with which he entered the retreat, leading to a developing expectancy (MU13). So there would probably have been a gradual shift of awareness and readiness as he tried to stay present and open to God, but when the pressure and insight to write did come it came "almost instantaneously" (MU16). The existential quality of this experience was so crucial in shaping Desmond's moral stance about writing the letter to the Prime Minister, that he was certain about it and committed to it; he had no self-doubt about it. He received this experience of insight in faith and was determined to be faithful to it.

### **Step 2 MU20**

**John: But you saw, or understood, quite clearly, that you needed to write an open letter, did it come as definitely as that?**

**Desmond: Well, it wasn't originally an open letter ...**

**John: It was to the Prime Minister ...**

**Desmond: It was to him ... in fact, I mean, I think they quite rightly got annoyed when they heard that a journalist ... somebody I knew ... soon after the retreat I saw him and then mentioned the letter, and he was working for the *Sunday Tribune*, and he asked to see it, and said it should be published. I had some misgiving because I knew the courtesies required ... the protocol ... where you had to alert the other person that you were going to**

**publish. I didn't have a chance of doing that, and so the Prime Minister was justified to some extent in being annoyed with me at having done that.**

**Step 3 TMU20**

Desmond's letter to the Prime Minister wasn't originally an open letter. He mentioned the letter to a journalist friend who asked to see it. Desmond gave it to him not intending its publication immediately. Desmond accepts the Prime Minister's annoyance about it.

**Step 4 ITMU20**

*What?* Desmond had said in his letter that he wanted to make it available to the press "preferably with your concurrence", but it was published before the Prime Minister replied, so there was a lack of courtesy and due protocol in the way in which the result of Desmond's experience of insight was executed.

*How?* Desmond let his eagerness over-ride his misgivings and sense of the courtesies required. He accepts the Prime Minister's annoyance about that, without in any way blaming the journalist involved, which is indicative of his honesty and motivation, despite this behavioural flaw in expressing his intuitive insight.

**Step2 MU21**

John: **He described it as putting out political propaganda, didn't he, in his reply to you?**

Desmond: **He dismissed it as though I had been put up to it by the official opposition ... it wasn't something that I had done on my own ... which was part of the sadness of our situation, that he was quite contemptuous ... quite dismissive in that he didn't think that I could have done this off my own bat, and then of course it was the usual thing, you are allowing yourself to be used and somebodys inciting you to do this.**

John: **That must have felt very insulting because you knew how the pressure had built up inside you ...**

Desmond: **Yes ... I just want to say too, the suggestion that we're not smart enough to be able to write a letter like this ... is insulting.**

**Step 3 TMU21**

The Prime Minister's response was dismissive, contemptuous and insulting. He not only questioned the authenticity of Desmond's experience of insight, he also dismissed and denied the validity of the content of Desmond's insight. He even assumed Desmond was not capable of

writing such a letter, and that he'd allowed himself to be incited and used by the official opposition.

#### **Step 4 ITMU21**

*What?* The Prime Minister dismissed the content of Desmond's insight as political propaganda, questioned the authenticity of Desmond's insight as something he could not have done on his own, devalued and refused to acknowledge Desmond's personal experience and convictions expressed in his insight, and in the process ridiculed and insulted Black people as intellectually incapable of writing a letter of this quality.

*How?* Desmond was very aware of expressing his insight in obedience to God's inner prompting or pressure, and the letter had flowed. He was also a trained and able teacher of English and was consciously writing with "all the eloquence [he could] command"<sup>26</sup>. He was also aware of his responsibility to articulate the concerns of the Black community as one of their official spokesmen. So he found the contemptuous suggestion that Black people are not capable of writing such a letter very insulting. It was personally painful for him. He also recognised it as part of the tragedy and irony of the apartheid situation, that his experience of insight was dismissed as political propaganda emanating from the official White opposition.

#### **Step 2 MU22**

**Desmond: One of the odd things, actually ... one of the things that is extraordinary about this letter, is that it wrote itself.**

**John: Really ... tell me more about that.**

**Desmond: I hardly ... the words ... I didn't have to agonise over the words ... they just seemed to come. I wasn't aware that I had to struggle. Now I don't mean, obviously, that one had a hotline, but it was quite odd that once I sat down at a desk ... I can seem to visualise this room ... small cell, and sitting at the table ... a bit of me knowing that I wasn't supposed to be doing this ... but having to say that I think that I would have to be disobedient to this rule in order to be obedient to this higher obligation ... and the letter wrote itself.**

---

<sup>26</sup> As Desmond put it in his letter "I write to you, Sir, to say with all the eloquence I can command that the security of our country ultimately depends not on military strength and a security being given more and more draconian power..." (see Appendix B)

### Step 3 TMU22

Desmond didn't have to struggle over writing the letter; in an extraordinary way it flowed and seemed to write itself. Nearly thirty years later Desmond can remember vividly how it was and how he felt as he wrote.

### Step 4 ITMU22

*What?* Not only did the insight to write come unexpectedly, but in an extraordinary way the letter seem to write itself; the words just seemed to come. More than thirty years later Desmond vividly remembers the experience and how he felt as he wrote “... the small cell ... sitting at the table ... a bit of [me] knowing that [I] wasn't meant to be doing this ... but having to be disobedient to be obedient to this higher obligation”; to be true to the experience of his insight.

*How?* Desmond was aware of knowing that on retreat he was not supposed to be writing a letter or doing any 'work'. Desmond is not claiming a hotline to God, or divine dictation, and takes responsibility for the way it is phrased; yet he twice asserts “the letter wrote itself”. He experienced it as “odd” and “extraordinary”. Perhaps the fact that the letter flowed easily is an indication of his whole-hearted obedience to the prompting of the Spirit of God, as well as illustrating the aesthetic and extra-ordinary quality of his whole experience of insight.

### Step 2 MU23

John: **It has been described by a number of people as a remarkable letter. Shirley du Boulay, for instance, says: “It is a remarkable letter, heartfelt yet statesmanlike, direct yet never failing to be tactful and courteous, eloquent, informed and precise in its suggestions” [du Boulay, 1988:104]. I noticed that ten times in the letter you say, “I am writing to you, Sir ...”**

Desmond: [roaring with laughter] **Yes, I thought it was important ... I wanted to be respectful. I was almost kowtowing ...**

John: **It's very respectful ... it's very gracious ... but it's also very clear.**

Desmond: **One was trying to have the doors open, because what I was saying for that time, and for him, would have been very provocative, and annoying. But I have no other word to add to the fact that it did seem like God was saying “that's what you have to do”... and I did.**

### Step 3 TMU23

Desmond was particularly respectful in the tone of the letter, because he wanted to open up communication<sup>27</sup> with the Prime Minister and was aware that what he was saying would make him angry and annoyed.

### Step 4 ITMU23

*What?* Desmond structured the letter in a respectful way around ten repetitions of “I am writing to you, Sir...”, because he was aware that at that time, and for the Prime Minister in particular, it would appear provocative and he wanted to open up communication.

*How?* Desmond went to great lengths in his letter to communicate effectively and respectfully with the Prime Minister, aware that for him, and at that time, it would appear to be very provocative. But he was quite clear in terms of his insight, that God was saying “that’s what you have to do”.

### Step 2 MU24

**John: And would it be fair to say, as Shirley du Boulay says, that it was in fact your first public political action? It was in fact a high profile action, wasn’t it?**

**Desmond: Ja ... I’m not certain ... I can’t be unequivocal about this ... I have to say that I became aware that God had given me as Dean of Johannesburg a platform, and for a while actually the media were very, very supportive, you might say, in that they certainly gave me a fair amount of exposure. I had told myself that “well, our people do not have very many spokespersons around, here is a position of some prominence that will enable me to some extent to articulate our concerns”, and I think that it may very well have been the first most overt political action that one had done.**

### Step 3 TMU24

Desmond was aware that as Dean of Johannesburg he was given an opportunity by the media to be the “Voice of the Voiceless”, but that this may very well have been his first and most overt political action.

---

<sup>27</sup> Towards the end of the letter, Desmond writes, “should you think it might serve any useful purpose I am more than willing to meet with you to discuss the issues I raise here, as you say in Afrikaans, *onder vier oë*” (see Appendix B)

#### Step 4 ITMU24

*What?* Desmond had previously sought to express the concerns of the Black community in the press, but expressing this insight in writing this letter to the Prime Minister may very well have been Desmond's first and most overt political action.

*How?* It was a profoundly respectful, statesmanlike and prayerful response of someone seeking to be obedient to God, and conscious of his responsibility to articulate Black peoples' concerns, in what may well have been his first and most overt political action. But his use of "one" rather than "I" may well express his equivocation about whether it was his first public political action. Nevertheless, it was clearly prompted and motivated entirely by his experience of insight.

#### Step 2 MU25

John: **But, when you went into the retreat, you had no idea that you were going to write this letter ... ?**

Desmond: **No ...**

John: **It came quite suddenly ... ?**

Desmond: **A bolt from the blue, as you might say, if you'll pardon the expression ... ja ...**

John: **But you don't remember whether you were praying at the time, or whether it was during the Eucharist, or exactly what was happening at the time?**

Desmond: **No, of course we were in silence, and so you assume that most of the time you were supposed to be praying ... [laughing] ... I wouldn't know. It may be ... you asked earlier on ... "did this thing grow on you or what?" My own recollection is that it didn't ... it may have been like Peter, you know, going up onto the roof, and because he was hungry, food somehow was involved in his vision, and that he had been worrying about the question of the Gentiles. He may not always have been aware that it was in the forefront of his consciousness ... but sort of at the back of his mind he'd been worrying about this, and so well, you're the psychologist, I'm not, God would then make use of a pre-existent condition to help. So it may not always have been in the forefront of my consciousness, but this concern about what was happening in and around our country was present all the time ... it must be present with everybody ... but as you were praying you were not aware that below the surface you were carrying this concern, and God was aware that that was probably a**

**primary concern, more primary than the things that were on the surface of your consciousness, you know ... and so God spoke to the deep thing, and so I wouldn't know. It seemed to me ... that it may very well have been at a time when I was praying.**

**Step 3 TMU25**

When Desmond went into retreat he had no idea that he was going to write this letter. The insight, or intuition, to write came suddenly, unexpectedly and fully-formed while in silence and prayerful.

**Step 4 ITMU25**

*What?* The insight came suddenly and unexpectedly while Desmond was prayerful. He expresses his own understanding of his experience of insight in terms of a possible parallel with Peter's experience recorded in Acts 10 and 11.

*How?* At a physiological level, Peter's physical hunger and the appearance of food in his vision, is perhaps paralleled by Desmond's "growing nightmarish fear" and his instinctual need to express it and his desire to do something about it. At a more contextual and sociological level, Peter is confronted through Cornelius with the question of what God is saying about the relationship between Jews and Gentiles; in a similar way Desmond is profoundly concerned about the relationship between Blacks and Whites; he feels it has reached explosive proportions. Then in terms of natural justice Peter sees clean and unclean food symbolising an entrenched prejudice of Jews (clean) to Gentiles (unclean); this is paralleled by Desmond seeing the injustice and violence of apartheid in ordering the relationship between Whites (privileged) and Blacks (oppressed). So perhaps God spoke to the deeper and often more semi-conscious levels of concern. At an intensely spiritual level of I-Thou encounter, Peter experiences God commanding him to "eat", despite the fact that he has never eaten anything unclean before and it appears to break the Jewish food rules. In a similar way, Desmond experiences God commanding him to "write", despite the fact that he has never taken such an overt political action before and it appears to break the rules of retreat. This reflective musing on the possible parallels with Peter's experience of insight may well have helped Desmond to make sense of his own experience of insight after the event, in terms of a suggestive biblical precedent.

**Step 2 MU26**

**Desmond: It certainly happens usually that I'm trying to be concentrating on God, and God will say "I think you have to talk to so-and-so". When I was not trying to be thinking about**

that, I was saying “Look God, I’m trying to concentrate on You, for goodness sake, let me concentrate on You”, but sometimes when I am going to be writing, a sermon or something ... things occur and I am trying to be in the presence of God, and I get some of these things coming like knowing you’ve got to do something, or here is a wonderful expression to use, and I say “well, I’m sorry I have got to have this distraction” and I don’t know whether it is a distraction or whether it is God saying “that is how I am going to communicate with you”. So it may have been that God was aware of our obsession of what was happening around us, what’s happening in our country, and God said, “well, why don’t you do something about it? ... write to the Prime Minister”. And once that occurred, there didn’t seem to be any question of doubting. It was as certain as anything, that this is what I should be doing, and I was going to do it.

John: **Right. Do you remember which day of the 5-day retreat that came ....**

Desmond: **No, I don’t recall that.**

### **Step 3** TMU26

Often when Desmond is trying just to be in the presence of God, he will sense he has to do something, and doesn’t know whether it is a distraction or whether it is God prompting him. In this case, once the thought of writing to the Prime Minister had come, he was quite certain it had come from God and that is what he had to do.

### **Step 4** ITMU26

*What?* Desmond continues by reflecting on the fact that sometimes he is not sure of the difference between distracting thoughts, when he is just trying to be in the presence of God, and genuine prompting or communication from God to do something. In contrast to that common experience, he was quite sure in this particular case that his insight had come from God and that he had to write a letter to the Prime Minister.

*How?* Desmond wonders whether God, being aware of the strong and deep feelings in the Black community about what was happening in the country, said “well, why don’t you do something about it...write to the Prime Minister”. Once that thought or idea occurred, with a clarity and insistence that he experienced as a pressure, and which he interpreted as an insight or an intuition from God, he was quite certain that was what he should do and was determined to do it.

**Step 2 MU27**

**John: It became very dramatic because it was only about five weeks later that the Soweto Uprising occurred. Do you think that that sort of possibility was part of your consciousness?**

**Desmond: What I seemed to be aware of, and it always sounds melodramatic ... it just seemed to me that people were beginning to feel they'd had it up to here [holding his hand between his nose and mouth] kind of thing. It was going to take almost nothing to spark an awful conflagration. It was just a sense, and I don't think it was anything that was peculiar to me, I'm sure that many people were beginning to sense that the pressure of repression was beginning to be of such an intensity that we wouldn't be able to find relief in some way or other ... that things had to come to a head.**

**Step 3 TMU27**

Desmond was aware that Black people were feeling that they had had as much as they could take, and desperate people resort to desperate means so it was going to take very little to spark a conflagration.

**Step 4 ITMU27**

*What?* The position of Desmond's hand (between his nose and mouth) may be an indication that people could no longer speak, and could only just breathe, so they would be likely to act in a 'last gasp' desperate kind of way. In which case it would be a dramatic way of saying that he and some others had a strong sense that the oppressive and repressive forces of apartheid were so intense that there was bound to be a desperate reaction by the Black community.

*How?* Desmond does not respond to my question in the terms in which it was put, namely whether he was anticipating the details of a *particular outcome*; he responds in terms of his general sense and awareness of *precipitating factors*. Living amongst the people of Soweto, being aware and empathic, Desmond and others had a sense that the people could not take it much longer. Things were coming to a head; there was bound to be a reaction to the violence of the apartheid repression.

**Step 2 MU28**

**Desmond: And I genuinely did believe that it could be averted. When you read this letter now, the proposals that I was putting forward, they are really piffling. I suppose of course**

at the time they seemed to be very radical. Indeed I did believe, and I think I was totally right, that had they even begun to move in the direction in which one was suggesting, the situation would have been diffused. But they might have then become more subtle, you know, in extending White rule, and perhaps that is why God made them into a kind of Moses and Pharaoh situation, hardening hearts,<sup>28</sup> so that if the thing was going to be resolved, a crisis had to occur. That was about the only way they would begin to see sense ... maybe.

#### Step 3 TMU28

Desmond genuinely believed that had the Nationalist Government even started to move in the direction he was suggesting, the situation at the time would have been diffused. But he also acknowledges that the Government might have become more determined and more subtle in applying apartheid, so perhaps if oppression was to be resolved it had to come to a crisis.

#### Step 4 ITMU28

*What?* Desmond's insight not only warned of the bloodshed and violence that was inevitable if the Government continued its present course; he also clearly articulated three key requirements for peaceful change.<sup>29</sup>

*How?* Desmond genuinely believed then, and is convinced even now, that if the Government had moved in the direction of his three key requirements for peaceful change, bloodshed would have been averted. The identification of the Prime Minister with Pharaoh hardening his heart may well have given Desmond a valuable perspective on the Prime Minister's insulting response (MU21), and enabled him to see God's hand in the apparent failure of his obedience to God,

---

<sup>28</sup> A reference to the Pharaoh's response to the ten plagues e.g. Exodus 8:15 "when Pharaoh saw that there was a respite he hardened his heart, and would not listen to them". Later it is said "but the Lord hardened the heart of Pharaoh and he did not listen to them" Exodus 9:12. This stubbornness of those in power and "hardening" mentioned no less than twelve times in the context in Exodus, to which Desmond refers, implies a parallel between the freedom of the Jews from slavery in Egypt and the freedom of the Black community from apartheid in South Africa.

<sup>29</sup> Meaningful signs required for peaceful change, articulated in his letter were:

First, accept the urban Black as a permanent inhabitant of what is wrongly called White South Africa, with consequent freehold property rights. He will have a stake in the land and would not easily join those who wish to destroy his country. Indeed he would be willing to die to defend his Mother Country and his birthright.

Secondly, and also as a matter of urgency, repeal the Pass Laws which demonstrate to Blacks more clearly than anything else that they are third-rate citizens in their beloved country.

Thirdly, it is imperative, Sir, that you call a National Convention made up of the genuine leaders (i.e. leaders recognized as such by their section of the community) to try to work out an orderly evolution of South Africa into a non-racial, open and just society (Appendix B).

without grandiosely identifying himself with Moses. Yet, as a realist, he recognises that if Government attitudes and policies in relation to apartheid were going to undergo fundamental change, probably a crisis had to occur.

**Step 2** MU29

Desmond: **The trouble with these intuitions or insights is that it looks as if you are arrogant and presumptuous ... yes ... but the trouble is that I knew I was not my own master. At least I [emphasising the I] believed that! [laughing].**

**Step 3** TMU29

Desmond reflects that the difficulty with having intuition or insight is that you appear to be arrogant or presumptuous, whereas he experienced it in the opposite terms of submission to a higher authority and obedience.

**Step 4** ITMU29

*What?* The inner reality for Desmond of obedience to his experience of insight was the polar opposite of the way it appeared arrogant to many people.

*How?* Desmond implies that his experience of acknowledging the “pressure” of the insight needs to be seen in terms of submitting to a higher divine authority rather than an arrogant or presumptuous initiative of his own. His sense of humour, “at least I believed that! [laughing]”, enables him to cope with the paradox between the outward appearance and the inner reality of his experience of insight.

**Step 2** MU30

Desmond: **Again, the whole question of “how do you know this thing is for real?” One may have a sense of a strong conviction, but that is not in itself a reason for believing that a thing is so. I mean the Germans had a very strong conviction that the Jews were causing them a lot of trouble and had got to be cleaned out, and so I think one has to ask, how do you check out that this is real, and not a figment of your imagination ... how do you know? And as you know, it’s been a puzzle.**

**Step 3** TMU30

Desmond ponders the whole epistemological question of how you test the reality and validity of an insight.



#### Step 4 ITMU30

*What?* Desmond, in musing on the epistemological question of how you test the reality and validity of an insight, concludes that strength of conviction is not a sufficient criterion, and recognises the danger and destructive potential of a so-called insight being, in fact, a pathological fixation, such as Hitler's paranoia about the Jews, leading to the Holocaust.

*How?* Desmond's awareness of, and willingness to discuss, these puzzling questions, assists him to make a realistic appraisal of his own experience of intuition or insight.

#### Step 2 MU31

Desmond: . **Gideon says “how about making the dew fall on the fleece, and not on the grass” and it happened. And then he says “well, yes ... how about doing it the other way round?”<sup>30</sup> And even when it's done the other way round, there is still not absolute certainty. There is no certainty except to say, “I wouldn't myself want this as a thing, and you just have to, I suppose, trust ... but there is no way of guaranteeing.**

#### Step 3 TMU31

Desmond refers to Gideon seeking a sign of confirmation from God, and reflects that even when God gives a sign which should be absolutely clear, there is still no absolute certainty or guarantee.

#### Step 4 ITMU31

*What?* There is no absolute certainty or guarantee of the validity or reality of the experience of insight.

*How?* Desmond muses that one reality check might be that if the insight itself is not desired, or if there is no personal gain as a result of the insight; he concludes that there is an indispensable element of trust in the experience of insight. The example of Gideon highlights the issue of motivation; whether the sign is desired in order to trust and obey or in order to avoid trusting and obeying (in this case the experience of insight) as was often the case with the Scribes and Pharisees seeking signs<sup>31</sup>.

---

<sup>30</sup> Judges 6:36-40.

<sup>31</sup> For example, in Matthew 12:38-40, Jesus says “An evil and adulterous generation seeks for a sign; but no sign shall be given to it ...” Whereas the Fourth Gospel, using the same Greek word, contains seven ‘signs’ e.g. John 2:11. After turning water into wine the comment is “This, the first of his signs, Jesus did in Cana of Galilee and manifested his glory; and his disciples believed in him”.

## Step 2 MU32

Desmond: **You might say about the letter ... well, the fact that four or five weeks later the nightmare is turned into reality seemed again to confirm it. But you don't have any absolute guarantees.**

## Step 3 TMU32

Desmond says of the letter that subsequent events seemed to confirm his insight but adds there are no absolute guarantees.

## Step 4 ITMU32

*What?* Desmond uses the word “nightmare” to refer to his expression of his insight in the letter to the Prime Minister of his

growing nightmarish fear that unless something drastic is done very soon then bloodshed and violence are going to happen in South Africa almost inevitably. A people can take only so much and no more ... I am frightened, dreadfully frightened, that we may soon reach a point of no return, when events will generate a momentum of their own, when nothing will stop their reaching a bloody denouement which is ‘too ghastly to contemplate’, to quote your words, Sir (Appendix B).

He claims this as apparent confirmation of the truth of his insight, but adds there are no absolute guarantees.

*How?* This predictive insight of “bloodshed and violence” and “events will generate a momentum of their own when nothing will stop them reaching bloody denouement” was horrendously fulfilled in the Soweto Uprising of 16<sup>th</sup> June 1976, which sparked off an uprising of young Black people throughout the country. Interestingly, although Desmond clearly had insight in predicting an explosion, its exact form and nature took him by surprise. So his *awareness* of the situation was limited; his sense of the precipitating factors did not extend to the details of a particular outcome. His *insight* was that he saw that this exact letter must be written by himself to the Prime Minister at this particular time. In biblical terminology it might be described as “prophetic” or as a “word of knowledge”<sup>32</sup>; both are limited fragments, fore-telling or forth-telling God’s perspective, based on God’s character.

---

<sup>32</sup> 1 Corinthians 12:8-10.

John: **Thank you, Baba. Thank you very much. You must be feeling weary**<sup>33</sup>.

Desmond: **Well, God is good. God has been very, very good and I think they're saying up there** [pointing upwards jokingly, referring to heaven] **“keep him down there, he’s such trouble, we can’t cope with him up here!”** [laughing yet again].

## 5.4 The Situated Structure of Desmond’s Experience of Insight

There are six distinct moments depicting the psycho-logical process of Desmond’s experience of insight. These moments could be called sub-structures, since each is an integral unity besides being a moment of the larger structural process. This constitutes **Step 5** (SSS) of the methodology. For the sake of clarity, the focus is first on the initial stages and precursors of his experience of insight, then on the dynamic core of his experience of sudden insight, and finally on the unfolding nature, results and quality of his insight.

### 5.4.1 The Initial Stages and Precursors of Insight.

- Living in Soweto, Desmond was deeply concerned and apprehensive about the level of people’s feelings about the physical conditions, deprivations, psychological humiliations and oppression under the apartheid regime (MUs3-4). He also struggled with issues of theodicy (MU5). He felt particularly strongly for young people with Afrikaans being enforced as the medium of instruction in schools (MU6). This quality of empathy and solidarity, awareness, concern and sense of apprehension of an impending crisis (MU11), was a significant preparatory factor for the participant’s subsequent experience of sudden insight.

*Structurally, this is insight as disposition: an affective, cognitive and behavioural openness in terms of a way-of-being-in-the-world.*

- Another very significant preparatory factor was a crisis in the participant’s own life. He had just been elected Bishop of Lesotho, so he was going to have to leave South Africa at the very time he was beginning to realise that things were coming to a head under apartheid. He describes

---

<sup>33</sup> Because at the time he was 75 years old, has prostate cancer and in the full interview had given me two other examples of similar experiences.

it as “heart-rending for me at the time” (MU9). He didn’t want to leave the centre of action (MU10). So his inner turmoil over his personal circumstances multiplied his “deep sense of foreboding” about what was happening in the country: “you felt that the clouds were gathering”. So it is not surprising that he speaks of going “into this retreat in a welter of emotions” (MU11). ***Structurally, this is insight as awareness of, and evolving from, an unresolved issue, question or tension.***

- In the light of the two points above, it is hardly surprising that the participant says, “I can’t put it into words as to how you were feeling, I mean you went into retreat ... but obviously you never know what God’s going to do with you [laughing]” (MU12). Clearly, there is a “holding” quality of the retreat. The structure of each day, the silence for prayer and meditation, the small “cell-like” bed-sitters (MU22) and the containing structure of regular worship all helped to keep Desmond’s focus on God (MU13).

***Structurally this is the unresolved and raw material of insight as requiring containment.***

#### **5.4.2 The Dynamic Core of his Experience of Insight.**

- Desmond was emotionally in turmoil (MU11), mentally distracted and spiritually unprepared, but trying to give himself as he was, his whole time and attention to God (MU13). This is the context in which he experienced what he came to recognise as God’s gracious activity; a gestalt which is more than the sum of its parts, a sudden and fully-formed insight to write to the Prime Minister.

Initially, “[i]t seemed like a pressure from God” (MU14). He also refers to it as “a bolt from the blue” (MU25). The critical mood of the structure in this phase of the research participant’s experience is a *passive* one. He acknowledges the limitations and questions that can be asked of his experience, but allows the reality of the sense of pressure to be (MU15).

***Structurally this is insight as impact.***

Then, “[i]t did seem that God was saying, or this particular pressure, said ‘write’” (MU16). The critical mood of the structure in this phase of the participant’s experience is a *reflexive* one expressed particularly in the word “seem”. It is an intuitive and imaginative process rather than a purely logical and deductive process, of allowing emerging meanings to be. His interpretation of

his experience of insight was that this particular letter must be written by himself to this particular politician at this particular time.

***Structurally this is insight as interpreting.***

Finally, “I think that it came almost instantaneously ... its effect on me was that ‘you have to do this’” (MU16). So it was a categorical imperative, over-riding the normal rules of retreat forbidding any form of “work” (MU17). The critical mood in the structure of this phase of the participant’s experience is an *active* obedient response.

***Structurally this is insight as action.***

- The reality and quality of this existential experience of insight was clear to the participant “once it came, then it was there, you know, there wasn’t a matter of any self-doubt” (MU19). As Desmond was faithful and obedient, a strange thing happened “One of the odd things, actually ... one of the things that is extraordinary about this letter is that it wrote itself”. He struggles to explain it. “I hardly ... the words ... I didn’t have to agonise about the words ... they just seemed to come” (MU22). This seems to be an expression of his faithful and obedient response to his experience of insight. It also illustrates the aesthetic and extra-ordinary quality of his own existential experience of expressing his insight during the retreat.

***Structurally this is insight as key to a self-actualising process.***

### **5.4.3 Desmond’s Reflections on his Experience of Insight.**

The participant’s reflections on the unfolding nature, results and quality of his experience of insight, fall into a series of seven interestingly balanced responses, without being consciously contrived statements.

- He acknowledges the flaw in etiquette which led to the publication of his letter before the Prime Minister had time to respond (MU20).

***Structurally, this is as a result of insight as releasing tension.***

- Yet he is understandably insulted by the assumption that Black people are intellectually incapable of writing such a letter and so having it dismissed by the Prime Minister as political propaganda emanating from the official White opposition.

***Structurally, this is insight as tested in the public realm.***

- He muses on and seems to draw strength from the suggestive parallels between his experience of insight and St Peter’s as recorded in Acts 10-11 (MU25).

***Structurally, this is insight as validated by scriptural precedent.***

- All this is in contrast to his more usual experience of not being sure whether an idea is a prompting from God or simply a distracting thought. On this occasion “there didn’t seem to be any question of doubting. It was as certain as anything, that this is what I should be doing, and I was going to do it” (MU26). Whether or not others judged his actions as divinely inspired was not the primary issue for him. The critical and decisive factor was the reality and existential quality of the experience (MU19) and obedience to God.

***Structurally this is insight as self-authenticating.***

- He makes a clear distinction between his sense of foreboding and awareness of the precipitating factors, and the recognition that his insight did not extend to the detailed outcome of the particular uprising (MU27).

***Structurally, this is insight as particular; as true, but limited.***

- He is aware that, from the present perspective, his “meaningful signs required for peaceful change” seem “piffling”, whereas at the time they seemed “very radical” (MU28).

***Structurally, this is insight as transcending the usual or dominant way of seeing things.***

- Yet he still believes bloodshed could have been averted if his warning to the Prime Minister had been taken seriously, but as a realist recognises that if apartheid was to be radically changed, probably a crisis had to occur (MU28,32). In his letter he expresses it as “a growing nightmarish fear that unless something drastic is done very soon then bloodshed and violence are going to happen in South Africa almost inevitably”. This has a luminosity and prophetic quality about it in the light of the Soweto Uprising only five weeks later.

***Structurally this is insight as historically validated.***

- Finally, he is aware of the serious, epistemological questions which assist him to make a realistic appraisal of his own experience of insight, and yet he can joke about “the trouble with these intuitions or insights is that it looks as if you are arrogant and presumptuous ... yes ... but the trouble is that I knew I was not my own master. At least I [emphasising the ‘I’] believed that! [laughing]” (MU29). His humour here and elsewhere (MU17) involves insight highlighting opposites, tensions and conflicting views in such a way as to see them in a new relationship to each other which helps resolve tensions, expose pomposity, or transcend set thought patterns.

***Structurally this is another example of insight, expressed in humour, transcending the usual or dominant way of seeing things.***

**May 1976 5.3.3. Desmond Tutu’s letter to the Prime Minister in obedience to his insight**

## 5.5 The Investigation of Debbie's Experience of Insight

The pattern of this investigation follows a similar format to the previous research participant.

### Step 2 MU1

**John: Debbie, I have here an e-mail from you, sent on Monday January 22nd 2001, at 4.19am. It's entitled "Fear and Confusion". I wonder if you would tell me a little bit about the background that prompted you to send this e-mail?**

**Debbie: In May 2000 I had discovered that Mark, my husband [they had been married for 23 years] had been involved in a long-term relationship with somebody for eighteen years, and I had asked him to leave home because there was no way that I saw myself living with him. So in January 2001, at the time when I was on my own, as you know, it was very difficult and I was struggling with it. In November 2000 I went to see a mediator to end our marriage. I believed that there was no way out, and the only way was to dissolve the marriage, to end the marriage and get divorced. I was convinced that it was the way to go, and I don't know that I was comfortable with it, but I was pretty set on my way.**

### Step 3 TMU1

Debbie discovered her husband Mark had been having an affair for eighteen years, and asked him to leave home. She was convinced that divorce was the only way forward, although she wasn't comfortable about it.

### Step 4 ITMU1

*What?* Debbie, after discovering her husband's long-term affair, asked him to leave home.

Despite struggling with living on her own for six months, she felt divorce was the only way to go.

*How?* She was not comfortable with that decision, but she was convinced that it was the only option, because she felt so hurt and angry.

### Step 2 MU2

**John: And then you had a meeting with Mark in early December 2000, and on 20<sup>th</sup> December you wrote an angry letter to Mark, which you didn't send, but which expressed how strongly you felt.**

**Debbie: Yes.**

**John:** It was about ending the relationship and the terms on which it should be ended. Do you remember? Didn't you write it as an exercise, suggested in therapy, to express how you really felt?

**Debbie:** Yes, I sat down in front of the computer ... and it was bitterness ... I just poured out all kinds of stuff. It was very, very ... it was me expressing myself with no thought of how much truth was in it ... no consideration ... it was my true feelings but it was not taking into consideration what was probably real ... the things that I chose not to acknowledge or look at ... just all the anger and all the bitterness within me. Oh, yes, so I was going to send him that letter, but I didn't.

### **Step 3 TMU2**

Debbie wrote Mark a letter, which she didn't send, ending the relationship and pouring out her anger and bitterness in expressing her feelings in an uninhibited way.

### **Step 4 ITMU2**

*What?* As an exercise, suggested in therapy, Debbie wrote Mark a letter to express her feelings about ending the relationship.

*How?* Debbie was, as an exercise, freely expressing her true feelings at the time, of anger and bitterness, with no thought or consideration of any other reality which she chose not to acknowledge.

### **Step 2 MU3**

**John:** That was on 20<sup>th</sup> December 2000, and just a month later, on 22<sup>nd</sup> January 2001, in the early hours of the morning, you wrote this e-mail to me [showing the e-mail to her], and I am wondering whether you can get in touch with that night, because it would be really helpful if you could describe it as a lived experience of insight, whether it came gradually or suddenly, in which you saw or understood something which has impacted on how you live and relate to Mark. Could you describe ... [she interrupts me at this point, in my key research question].

**Debbie:** [Strongly and with conviction]. It sure impacted on the way I related and lived with Mark, because it was after that we got back together. It is shocking realising how one month earlier I was at point zero, and just 30 days later ... bearing in mind there was all the anger in that letter and afterwards at having to do Christmas on our own [i.e. with her daughter but without her husband]. Everything was so disrupted, my life was in a total

shambles, man, and it didn't just end at the 20<sup>th</sup> December, because nothing happened after the 20<sup>th</sup> to change my mind ... you know, just a total turnaround and I mean this guy was putting his foot into it just by breathing. I was darned angry with him ... nothing he did helped to alleviate his plight in life. And then, suddenly ... I didn't even speak to him prior to sending you that e-mail ...

John: **No, I don't think you did according to my records.**

### **Step 3** TMU3

A month later, Debbie wrote me an e-mail detailing six things that greatly impacted her, and concluding that she wanted to work towards reconciliation.

### **Step 4** ITMU3

*What?* I asked Debbie to describe what happened that night as a lived experience of insight.

*How?* Debbie interrupts me with conviction about the impact and significance of that experience of insight expressed in the e-mail, only a month after writing her angry letter, as it led to their getting back together. She had had Christmas without him, and felt her life was in a shambles. She was so angry with him that she regarded him as "putting his foot into it just by breathing". Her change of mind, her insight, came as a result of her internal work without even speaking to him.

### **Step 2** MU4

Debbie: **What was I doing on the night I sent you the e-mail? ... I was sitting listening to music. I have speakers attached to my computer and I was listening to Geoff Bullock's music ... it was almost the thing that sustained me ... that kept me going ... this realisation of being held by God, of being loved by God. And that Mark's rejection of me was one thing but I came to realise that I had God helping me in all of this.**

### **Step 3** TMU4

Listening to music, Debbie felt sustained, held and loved despite Mark's rejection.

### **Step 4** ITMU4

*What?* The experience of a series of insights was enabled and sustained by music.

*How?* Debbie "listened with her soul" (Musica slogan) to the music which communicated and symbolised God's love and acceptance in contrast to her sense of Mark's rejection.

**Step 2 MU5**

Debbie: **And you journeyed with me as I grew to accept who I am ... you helped me to discover myself, and to actually begin to like myself and to stop being rough and hard on myself.**

**Step 3 TMU5**

In therapy Debbie discovered and accepted herself, instead of punishing and rejecting herself.

**Step 4 ITMU5**

*What?* The therapeutic relationship enabled Debbie to discover and accept herself in a new and empathic way.

*How?* This was an essential prerequisite for listening to her feelings and experiencing insight, which came not only through her thoughts but also her feelings and her sense of self...the whole person.

**Step 2 MU6**

Debbie: **But none of that actually tells you about that “light bulb” experience.**

**Step 3 TMU6**

Debbie describes her experience of insight as a “light bulb” experience.

**Step 4 ITMU6**

*What?* The experience of insight for Debbie is like seeing things for the first time or more clearly in a new light.

*How?* It is as if her whole person experiences a “connection” and becomes a filament which is lit up by an electric current.

**Step 2 MU7**

Debbie: **I sat there listening to the music, and the fact that I know that at 4 o'clock in the morning sending people e-mails is really not respecting other people's time, and it doesn't also explain to you what the heck I am doing up at the that time in the morning, thinking and typing e-mails. It's a “nanas” thing to do, to send someone an e-mail at that time in the morning, because you know they're not going to respond because they're sleeping.**

John: **I think it's a very sensible thing to do ... not “nanas” at all. I think it captures something very important about your experience of that night. In fact, I'm not sure I'd be interviewing you now on your experience of insight if you hadn't written and sent that e-**

**mail. So I'm grateful to you. What I am particularly interested in** [here I'm returning to the key research question] **is if you could describe in details what actually happened ... the lived experience of insight in the context of what happened before, during and after, seeing or understanding it, and if possible focusing on what you thought, what you felt and what you did at the time. I can help you here, because I've got a copy of your e-mail.** [Significantly, this is the first and only e-mail Debbie has sent me in three years of psychotherapy with me.]

**Debbie: It's some time ago, can you refresh my memory by reading it?**

**John: Yes, certainly, I have it here** [reading].

**Sent: Monday, January 22<sup>nd</sup> 2001. 4.19 a.m.**

**Subject: Fear and confusion**

**Step 3 TMU7**

Debbie felt listening to music and sending an e-mail at 4.19 a.m. was not very sensible, in terms of her own very ordered and proper lifestyle.

**Step 4 ITMU7**

*What?* The experience of insight that she wanted to seek reconciliation with Mark came after prolonged listening to music.

*How?* The music relaxed Debbie and enabled her to experience a different way-of-being-in-the-world from her usual defensive rationalism and "proper" way-of-being. She expressed this experience of insight in an e-mail and sent it at 4.19 a.m., knowing it would not be immediately responded to or "judged".

**Step 2 MU8**

**John: [reading Debbie's e-mail]. Dear John, I desperately need to see you. This past weekend has been a time of great confusion and I have been reflecting on events and on what you had said. Firstly, I have to acknowledge that I am so caught up in fear that I have not been willing to even try to envisage the possibility of reconciliation. My failure to understand Mark's fear of rejection I do believe is based on my feeling that he is able to hand it out but is not able to even experience it. Does he not see that he has rejected me, probably in the most vulnerable area of my life?**

### Step 3 TMU8

Debbie reflects and acknowledges that she is so caught up in fear and rejection by Mark, in the most vulnerable area of her life, that she has not been willing to even try to envisage the possibility of reconciliation.

### Step 4 ITMU8

*What?* The insight that Debbie deep down wants reconciliation with Mark has been blocked by her fear, a sense of rejection by Mark and a failure to understand Mark's fear of rejection.

*How?* Relaxing to the music, reflecting on events, and what was shared in therapy enabled Debbie to acknowledge her fear of rejection, which had been made more bearable by pushing Mark away, and to get in touch with her deep-down longings to reconcile with Mark, despite her sense of fear, confusion and vulnerability.

### Step 2 MU9

John: [reading Debbie's e-mail]. **These are a couple of things that greatly impacted on me:**

**1. The passage that you read to me out of CS Lewis's book [On 6<sup>th</sup> December 2000, from "The Four Loves", chapter 6, see footnote 1 of transcript of interview for text] has touched me deeply, and since honesty is so important to me I have wrestled with whether or not it applies to me. I have a sense that it does.** [On 12<sup>th</sup> January 2001, at the end of her session, Debbie had said "I don't know why you read that CS Lewis to me". So this is quite a recent realisation].

### Step 3 TMU9

Debbie felt deeply touched by the CS Lewis quote about the vulnerability of love and has honestly wrestled with it and now has a sense that it applies to her.

### Step 4 ITMU9

*What?* CS Lewis's poetic images enabled Debbie to see that she was preventing her 'heart from being wrung and possibly broken by locking it up, safe in a coffin of self-protective lovelessness' and gain insight into what she is doing to protect herself.

*How?* The discernible stages of this insight are a *passive* sense of being deeply touched by the images, an *active* honest wrestling with the text, and a *reflexive* sense that it applies to her, resulting in emerging self-insight.

### Step 2 MU10

John: [reading Debbie's e-mail]. **2. On Friday** [Debbie later identified this as the 12<sup>th</sup> January 2001. I didn't know anything about this at the time], **I noticed a book titled "All Truth is God's Truth", on your bookshelf, and I could not help but question my reluctance to accept anything that Mark had said as being true. I am only seeing my truth as being real.**

### Step 3 TMU10

Debbie noticed a book entitled *All Truth is God's Truth* and subsequently recognised she was only seeing her truth as being real, while rejecting Mark's truth.

### Step 4 ITMU10

*What?* Debbie had been so hurt and angered by Mark's deceit and lies covering up his long-time affair, that she was reluctant to accept anything that Mark said as being true. So she needed an experience of insight to see what she was doing; namely, only seeing her truth as being real while rejecting Mark's truth.

*How?* The apparently trivial experience of noticing the book title *All Truth is God's Truth* jolted her spiritual awareness that "All Truth ... whether scientific or religious, reasoned or poetic, proved or believed, Debbie's or Mark's ... is God's Truth", and enabled her to become aware of her partiality and the self-insight that she was only seeing her truth as being real.

### Step 2 MU11

John: [reading Debbie's e-mail] **3. On Saturday afternoon** [20<sup>th</sup> January 2001, Debbie in crisis came for an extra therapy session] **when you apologized for being barefooted, I was struck by the natural way in which you and Jill** [researcher's wife] **were relaxing together, and I was strongly reminded of how Mark and I spent our times together. It was pretty much the same. I have forgotten, or quite simply refused to remember, the good we shared together, especially the parts I know of, and not the parts I choose now to focus on.**

### Step 3 TMU11

My barefeet, as I was relaxing with my wife, reminded Debbie of similar good, relaxed times she had spent with Mark which she had refused to remember.

### Step 4 ITMU11

*What?* Debbie was struck by something entirely natural and apparently trivial, namely my bare feet as I was relaxing with my wife. She later became aware that she had angrily refused to remember similar relaxed and good times with Mark.

*How?* Despite being “struck” at the time, it was only two nights later when relaxed through listening to music, that Debbie gained sufficient insight to become aware of her sense of loss of companionship with Mark and the significance of the fact that her anger had blinded her to having enjoyed similar relaxed and good times with him.

**Step 2** MU12

John: [reading Debbie’s e-mail] **4. When I listened to the marriage vows of Tony and Tamara, [close friends recently married], the words that struck me were “in sickness and health”, and I’m almost certain that when I consider Mark’s behaviour, that it was not normal and there has to be some form of “sickness” that causes one to behave in such a manner.**

**Step 3** TMU12

Debbie applies the sickness in the marriage vow “in sickness and in health” to Mark’s affair.

**Step 4** ITMU12

*What?* The phrase in the marriage vows “in sickness and in health” helps Debbie put a label of “sickness” on Mark’s long-term affair.

*How?* This label of “sickness” helps Debbie to see and partly understand Mark’s long-term extra-marital affair, but she does not specifically relate it to her responsibility to keep *her* marriage vows, rather than completely rejecting him for breaking *his* marriage vows.

**Step 2** MU13

John: [reading Debbie’s e-mail] **5. I can get by on my own, however it’s a lonely existence and I do not believe God intends us to live as islands.**

**Step 3** TMU13

Debbie is aware of the loneliness of singleness.

**Step 4** ITMU13

*What?* Debbie’s awareness of loneliness, strengthened by her belief in God’s intention for marriage, may help to overcome her defensive bravado of “I can get by on my own”.

*How?* Debbie’s awareness of her loneliness and belief in God’s intention for marriage may enable her to acknowledge and become more aware of her vulnerable and therefore ‘hidden away’ longing for reconciliation with Mark.

## Step 2 MU14

John: [reading Debbie's e-mail] **6. You said to me that when I was not strategising, I was able to connect with my true feelings** [this was on Saturday 20<sup>th</sup> January 2001], **and this has been playing on my mind ever since. I think I am trying to control the situation, thereby avoiding the possibility of being hurt. I am wanting guarantees that it will never happen to me again, and yet the words of that poem that I gave you** [also on Saturday 20<sup>th</sup> January 2001, see footnote 2 of transcribed interview for text] **clearly says that there are no guarantees that what we plan will in fact materialise. John, I think I am not allowing God to be God, but rather that I am directing and not trusting.**

## Step 3 TMU14

In therapy Debbie becomes aware of “strategising” as a way of trying to “control” the situation so as not to feel so hurt or get hurt further. Reading a poem, Debbie realises that she is wanting guarantees that rejection will never happen again, thereby not allowing God to be God.

## Step 4 ITMU14

*What?* Debbie became aware in therapy that her way of thinking and acting to avoid being hurt again, involved “strategising” and trying to “control” the situation with Mark in her mind. This awareness was positively reinforced by a poem, full of affect, which enabled Debbie to see that there are no guarantees that we can “control” things, and points to a new way of being-in-the-world; namely, to “live again ... naked in our vulnerability”.

*How?* Debbie's awareness of her “strategising” and trying to “control” the situation helped her to see that she was in effect trying to play “God”. This is reinforced by a poem which not only played an important role in pointing to a new way-of-being-in-the-world, namely “naked in our vulnerability”, but also the whole tone of the poem epitomises, embodies and communicates that spirit of naked vulnerable trust.

## Step 2 MU15

John: [reading Debbie's e-mail] **Angelo, Anne's boyfriend** [Anne is Mark and Debbie's daughter], **asked me what it was that I was hoping to achieve by seeing you, and what it was that I wanted, and this is where the greatest confusion lies** [Debbie didn't answer him at the time and says that if she had it would have been the opposite of the next sentence in this e-mail.] **I THINK that the real reason is that whilst I am incredibly scared, I have wanted to work towards reconciliation.** [Debbie explained that the use of capitals here indicates “a definite and

shocking realization that would register significantly on an indicator scale if her brain activity was being monitored at the time!”]

### Step 3 TMU15

Debbie’s greatest confusion was around what she really wanted. She then comes to the shocking realisation that, despite being incredibly scared, she wants to work towards reconciliation.

### Step 4 ITMU15

*What?* Debbie’s central and shocking experience of insight is that she really wants to work towards reconciliation with Mark.

*How?* Angelo’s blunt but valid question about what Debbie *really* wanted helped to pinpoint and clarify the heart of her problem. It is the conflict and consequent confusion between *protecting* herself, because she is scared to acknowledge her need, and *becoming vulnerable* by fully accepting her need and deep desire for reconciliation with Mark, which had been so ‘buried’ that she was not really aware of it. When it did ‘surface’ later it was as a significantly “shocking” realisation.

### Step 2 MU16

John: [reading Debbie’s e-mail] **I have lost all trust in Mark, and I therefore read different nuances into everything that he does or says, which is why I am so critical of everything he says and does. He really is a nice person, and being the person that I am, I’m sure that if that was not the case I would have left him ages ago.**

### Step 3 TMU16

Debbie is aware that she has lost trust in Mark and being suspicious, she prejudices and criticises Mark and that there is a contradiction here not only in terms of who he is, but also who she is and how they have related together over many years.

### Step 4 ITMU16

*What?* Debbie is aware that she has lost trust in Mark and being suspicious reads different nuances into everything he does or says, which reinforces her criticism of him. She is also aware that this is a distortion of who he is and also who she is, and how they have related together over many years.

*How?* Debbie’s suspicion, criticism and loss of trust in Mark is questioned and limited to some extent by her awareness of her own critical attitude of making him into a “bad” person, rather

than the “nice” person she has known him to be over the years, but who has now disappointed and hurt her.

### **Step 2 MU17**

John: [reading Debbie’s e-mail] **It is now 04h05 and it may be that either I think more clearly in the early morning hours, or I may just be exhausted and tired and all my defences are down.**

### **Step 3 TMU17**

At 4.19 a.m. Debbie is aware that either she is thinking more clearly or she is too tired to strategise and her ‘defences’ are down.

### **Step 4 ITMU17**

*What?* Debbie is “musing” which includes both deep and serious thought as well as doing it in a dreamy and abstracted way.

*How?* Lower ‘defences’ against painful reality and less strategising to attempt to control that reality enables a greater openness to “see” that reality. This opens up the possibility of a new way-of-being-in-the-world, which is a constituent part of the whole experience of insight, and increases the probability of that experience.

### **Step 2 MU18**

John: [reading Debbie’s e-mail] **You know that Anne has said to me, that for the first time we are able to relate on a deep level because I share/show my feelings, and she is able to get close to me. I have probably done the same with Mark, and I appear to be so self-assured, and not the needy person that I actually am.**

### **Step 3 TMU18**

Debbie’s daughter, Anne, says she is able to relate deeply/closely for the first time to Debbie because Debbie shares/shows her feelings. Debbie also recognises that she probably shows her “self-assured” self to Mark, rather than revealing the “needy” person she now considers herself to be.

### **Step 4 ITMU18**

*What?* Debbie recognises some of her contribution to problems in the marriage relationship, in terms of showing her “self-assured” self to Mark, rather than revealing her feelings and needs.

*How?* This experience of insight comes by inference out of her daughter's response to the experience of a deeper relationship as a result of sharing feelings.

**Step 2 MU19**

John: [concluding the reading of Debbie's e-mail] **The fact that I have been accepted and forgiven by God makes me wonder why I am not able to do the same, and why I'm scared of being crucified again, when He would probably do that for me again because He loves me.**

**Debbie.**

**Step 3 TMU19**

Debbie is not able to accept and forgive Mark because she is scared of "being crucified again".

**Step 4 ITMU19**

*What?* It is a real possibility that Debbie could be tormented and broken hearted again by Mark's unfaithfulness.

*How?* Instead of accepting her vulnerability and humanity, Debbie is prone to criticise herself for not being able to be God-like in accepting and forgiving Mark. So her high expectations of herself and her rather idealistic interpretation of her faith may complicate the process, which requires the experiential reality of self-acceptance (as a result of God's acceptance and forgiveness) which would enable her acceptance and forgiveness of Mark.

**Step 2 MU20**

John: **So it seems to me it was a pretty disturbed and pretty sleepless night ... Do you remember it?**

Debbie: **I recall it was ... I wrote to you about my "fear and confusion" ... I remember the things that CS Lewis was writing about<sup>34</sup> because that's pretty much what I was doing, just retreating to within myself and protecting this very sacred person of myself, and not wanting to be vulnerable ... and in my fear of actually making myself vulnerable, I wasn't prepared to go that route ... I was pretty happy to put my heart way way away.**

**Step 3 TMU20**

Debbie struggled with and kept remembering the vivid words of CS Lewis: "Love anything and your heart will certainly be broken. If you want to make sure of keeping it intact, you must give

---

<sup>34</sup> C.S Lewis (1963) *The Four Loves* pp.111-112. London: Fontana

your heart to no-one, not even an animal ... lock it up safe in the casket or coffin of your selfishness. But in that casket – safe, dark, motionless, airless - it will change. It will not be broken; it will become unbreakable, impenetrable, irredeemable”. She recognised that that was what she was doing, out of fear of making herself vulnerable.

#### **Step 4 ITMU20**

*What?* Debbie’s experience of insight begins with seeing herself portrayed in the mirror of vivid images held up by CS Lewis, so that she gained some insight into what she was doing to protect herself, in contradiction of the vulnerable nature and the risks inherent in love.

*How?* These poetic images are potent for Debbie because she recognizes herself in this mirror; “That’s pretty much what I was doing”. She gains self-insight as well as insight into the vulnerable nature of, and risks inherent in, loving.

#### **Step 2 MU21**

Debbie: **I wasn't thinking about it that night ... it was as if I had done all the deep thinking about it ... all the ... all the blood, sweat and tears about it, like really examined, examined ... Why am I like this? What is it? Why do I want to? ... What am I scared of? ... What makes me so right and the other person so wrong? ... I had gone through all of that ... I had come to see you on the Saturday** [20<sup>th</sup> January 2001. In fact Debbie also referred to the C.S. Lewis quote in therapy on 12<sup>th</sup> December 2000, the week after I had shared it with her, so she had been mulling over it in her memory for some time. She didn’t have a copy of it, yet had felt the power of it and remembered it remarkably accurately. She asked me to read it to her again on 20<sup>th</sup> January 2001] **... so the whole weekend I had to mull it over, to really, really ... ouch, you put me through the wringer, eh!** [nervous laughter].

#### **Step 3**

Debbie describes being “put through the [emotional] wringer”. The hard work of examining and questioning over the course of that weekend was a necessary preliminary to “not thinking about it that night” of listening to music.

#### **Step 4**

*What?* Debbie was not in a cognitive or self-critical mode the night that the insights came together; she was relaxing listening to music in a more reflective mode.

*How?* But being “put through the wringer”, the hard work of self-examining, questioning and demanding considerable integrity of herself was an essential preparation for her experience of insight.

### **Step 2 MU22**

**John: You were talking in your session, about how angry you were feeling ...**

**Debbie: And nothing that I said to you ... there was absolutely nothing that I said to you on that Saturday that had any inkling of this. I mean, I think I was pretty angry on the Saturday.**

**John: Yes, you were. I see from my notes you said "On my way to work this morning I was so angry I could slam my car into something ... to cap it all I forgot my tablets at home ... I don't want to be back with him [Mark] so I'm not prepared to share at a feelings level with him ... "**

**Debbie: Holy Moly, what a total contrast!**

**John: And you were saying in the session: "Why does he want to be back with me? Because he has lost respectability? friends? standing in the community? ... or because he doesn't want to give me the house bond-free? Is that why he needs me? It won't matter if I have no one who truly loves me, that's where I'm at ..." And then I said: "I guess underneath this thinking and strategising it must feel pretty raw". And you weren't able to respond to the underlying rawness at the time. You said: "It's survival now. He expects me to be there. He decides when he wants to see me, and I must be there. He doesn't even respect me ... "**

**Debbie: Self-righteous, ain't I! [laughing]. But that was how I really felt, it was truly how I felt, and I think that is what I had internalised for myself.**

### **Step 3 TMU22**

Debbie's anger 36 hours before her central insight completely blocked out any inkling of this self-insight about wanting reconciliation with Mark. She was so hurt and raw that she was blaming Mark for everything and was not able to see what she was doing.

### **Step 4 ITMU22**

*What?* Any inkling of this insight that Debbie really wanted to seek reconciliation with Mark, was blocked from her consciousness by her anger towards Mark.

*How?* In her anger, Debbie was quite violent towards herself as well as vicious towards Mark, questioning his motives, blaming him for her feelings and distorting what he says and does, with the result that she bluntly states “I don’t want to be back with him”.

### **Step 2 MU23**

**Debbie: And so even though I had spent lots of time mulling over that quote from C.S. Lewis that you read me and really examining it and thinking about it, I knew I had to be ... brave ... I couldn't lock myself up and tell the whole world that I was this delicate little thing ... I wouldn't ever experience life ... I would never enjoy my life ... that is where I was at. It caused me to really think deeply that I take care not to do that. But at no one time ... at no one time ... at no one time ... did I actually think around the lines of the e-mail to you until that morning when I sat down and actually did it.**

### **Step 3 TMU23**

Debbie spent time and energy mulling over the images of C.S. Lewis, experiencing considerable inner turmoil in facing the private and public aspects of her growing awareness of herself, but she never thought positively along the lines of the e-mail before she actually wrote it.

### **Step 4 ITMU23**

*What?* Debbie experienced considerable inner turmoil in facing the private and public aspects of her growing awareness of herself, but her central insight that she really wanted to work for reconciliation with Mark, did not come together as a gestalt in an holistic, lived experience, and was not anticipated in Debbie’s conscious thinking at all before she expressed it in the e-mail.

*How?* So this insight, born out of inner turmoil, is not a logical, cognitive, accumulative, and linear *quantitative* process [importantly she says “at no one time” three times]; there are also factors involving affect and self-acceptance, and “change of heart” that make a *qualitative* difference in the process by permitting, motivating, bringing into focus, and constellating the constituent parts of this lived experience of insight. Yet it is also clearly a cumulative process; Debbie did not have the insight at any “one time”, it comes together as she relaxes and listens to the music over a considerable period of time, and culminates in writing the e-mail.

### **Step 2 MU24**

**Debbie: I was sitting listening to music ... I would compare God's love and Mark's love, and see the difference ... I was so scared of being rejected until gradually through a lot of**

**hard work, I came to accept myself ... warts and all ... it was almost a birthing of a person ... coming into my own.** [When I asked Debbie about this “hard work” she described it as being “just like labour pains”.]

**John: I like the image of birthing that you’re using, and of course it’s the opposite of the “death” as the result of the fear that C.S. Lewis is talking about, when we end up locked in the coffin of our selfishness.**

**Debbie: Yes** [laughing].

### **Step 3** TMU24

Listening to music, Debbie would compare God’s love (accepting) and Mark’s love (rejecting). Gradually, through a lot of hard work (labour), Debbie came to accept herself ... “almost a birthing of a person”.

### **Step 4** ITMU24

*What?* This insight, that Debbie really wanted to seek reconciliation with Mark, involved her accepting herself as she is, warts and all, but loved and accepted by God.

*How?* This self-acceptance, overcoming her fear of being rejected, was hard work over something like six hours. She describes it as “labour pains” resulting in “almost a birthing of a person ... coming into my own”. It was the opposite of the lonely “death” described by C.S. Lewis, locked in the “coffin of your selfishness”. It was facilitated by listening to music (relaxing) and meditating on God’s love (accepting that she is accepted).

### **Step 2** MU25

**John: It sounds as if the music was quite important ...**

**Debbie: The music was very calming, very soothing ... it was Geoff Bullock's orchestral music, it's called a "Symphony of Hope" [arranged and conducted by Paul Terracini CD 1021] ... there are no lyrics to it ... it was just the music. It's like waves of calmness that just flow over me. Because when I listen to that music I'm not in touch with listening to words, not focusing on words of somebody else ... so you have to focus on your own words.**

**John: And what do you mean by “focus on your own words”?**

**Debbie: You know, John, rather than focus on what the composer or songwriter is picturing out there, I refocus it for myself and make it my own. There will be some parts that resonate for me and I want to dream on, and sometimes I even think, ‘no, I wouldn’t put it that way’, and put my own words to it ... the way I would feel that music must be.**

**John:** So when you say, “the way I feel that music must be”, maybe you’re talking more about connecting with feelings, and putting some words to the feelings. Is that it?

**Debbie:** Yup. Yes, I’ll give you an example. Last night I sat listening to Josh Groban, and a sense of wonder and calm came over me. I can sit there for hours, and most of his music is in Spanish, I think, I can’t understand a word of it. There’s a lot of English songs as well, and some of the songs ... the words ... are what I would like somebody to say to me ... and it’s almost as if I get to a place where I feel I know those words really are for me. And that’s exactly what I did last night ... and you know what, I feel happy within myself ... waves of peace.

**John:** So, are you saying it is not happening at a verbal conscious level?

**Debbie:** No! [very firmly, meaning it is not happening at a verbal conscious level]. It’s happening at a feelings level.

**John:** It is connecting with inner words, at a deeper perhaps subliminal level?

**Debbie:** Totally ... totally. You're on a different plane ... you're at a different dimension. You're at that place inside yourself. The music is just calm and it's almost a meditative state ... you can centre down deep within yourself and go to a place where you don't normally go to ... it sounds strange, eh ... I mean to me it's strange to give expression to it ... to say to you that it's like really connecting with yourself at a level where in your normal busy life, you wouldn't.

**John:** It sounds like connecting at a sort of soul level ...

### **Step 3** TMU25

Debbie experiences the music as waves of calmness. She then “refocuses” the composer’s message and makes it her own ... “the way I feel it must be ... for me” until she reaches a meditative state and is able to centre down deep within herself and connect with her soul/inner being/different dimension which helps a qualitative change in insight.

### **Step 4** ITMU25

*What?* Debbie experiences the music as crucial and elemental in her experience of insight. It is significant that the music is called a “Symphony of Hope” because it was this crucial element of *hope* that needed to be rekindled in Debbie for her to experience the insight that she really wanted to seek reconciliation with Mark.

*How?* So the music must have expressed and evoked this *hope* in Debbie. In terms of her mood and appropriation of the music, the *verbs are in three distinct* voices, which together harmonise to bring about her central insight. There is a *passive* element in “waves of calmness that just flow over me”. There is also an *active* element “I re-focus it for myself and make it my own”, and “put my own words to it”. She also listens, *reflexively*, not in a critical or detached way, she appropriates the words and the music in a meditative way in order to get in touch with her self and her real desires and feelings at a deeper, or “soul”, level of being.

### Step 2MU26

John: **Or here’s an image ... I think it was prompted by what you said a few moments ago about the music being the thing that sustained you ... that kept you going ... the realisation of being held by God, or being loved by God** [MU4. But as I worked on the Meaning Units in this interview, I realised that it was Debbie’s description “it was almost a birthing of a person” [MU24] that stood out as catalytic of this image. In fact, I commented at the time “I like the image of birthing that you are using”]. **Perhaps the music is like the mother holding you as a baby in her womb and you are aware of the rhythm of her heartbeat, and the melody of her voice ... and you are contained and nurtured and sustained ... maybe you are experiencing being “held” by the music, just as you are “held” by mother, and “held” by God in the womb of the Spirit ... so perhaps you are connecting with a consciousness of being “held” before words, logic and rationalisations are learned?**<sup>35</sup>

Debbie: **Absolutely! But the image almost makes me feel sad ... I was born thirteen months after my brother, and I don’t think my mother had very much time to focus on this new baby that was growing and probably kept her sick, because she had this precious little boy, and I would always tell her I was a mistake ... that’s why it makes me feel a bit sad. When I was pregnant with Anne, it was probably the grandest time for me ... an amazing time ... I know exactly what that sensation was like when her arms would move across my tummy, and I would play games, I would sit in a bath of water, my tummy submerged, and then I’d knock on the bath, and because the soundwaves would go through all the water ... then you’d see how my tummy moved ... then I’d just knock on the bath and talk to this baby, and it moved ... and so I played with this child before she was born, man. She was**

---

<sup>35</sup> It is recognized that this long comment is inappropriate in a research interview. It is perhaps more appropriate for a therapist than a researcher and this will be commented on in Section 3.7.1 and 7.18

**just so precious, so incredibly precious, from the time she was conceived ... I'd like to think that somebody felt that mad about me, when I was in the womb ... that being held thing ... I know it from the point of the person holding, because I held that child. It is a great need of mine to feel safe, to be held, and I needed Mark to hold me, for me to feel safe emotionally, just as I need God to hold me safe.**

**Step 3 TMU26**

Debbie agrees that the music is like mother holding one as a baby in her womb, or like being held by God in the womb of the Spirit, but the image makes her feel sad because when she was born she didn't feel wanted or "held". She felt she was a "mistake". By contrast, Debbie's experience of "holding" Anne was wonderful, because Anne was so wanted and so precious from the time she was conceived.

**Step 4 ITMU26**

*What?* This image and experience of birthing, evokes real feelings of sadness for Debbie about being second-rate and unwanted compared to her older brother as a baby. In contrast Debbie remembers warm feelings of how she 'held' her daughter in her womb, 'played' with her and how incredibly precious she felt her to be. This prompts Debbie to express her own intense longing to be loved, cherished and held in a similar way.

*How?* The image and experience of birthing evokes in Debbie affective levels of feeling, both sadness and joy, remembering, intense longing and need. This enables a greater sense of self, and self-awareness, at a cognitive level which seem to be pre-requisites for her later self-insight of her need to feel safe emotionally and to be "held" by Mark.

**Step 2 MU27**

**John: So, for you, being held by Mark, being held by the music, is very much like being held by God?**

**Debbie: Yup. Music relaxes and releases me ... nothing that anybody could say or do would have the same effect of enabling me to "chill".<sup>36</sup> I come to real peace within myself listening to different instruments, rhythms and the melody. Many times the words of his songs [the symphony was an arrangement of the music from a number of his religious songs] tied in with the feelings I was in touch with.**

---

<sup>36</sup> A slang expression defined by the Encarta World English Dictionary as to "calm down, to stop being angry or tense" 1999, Bloomsbury, London

John: **So the music was connecting with your feelings before or underneath your words, your logic and your rationalisations?**

Debbie: **Yes, and you [with emphasis] know how I like to be logical ... need to be logical ... about everything. I need to rationalise ... I need to be able to explain things, and I think I said to you in that e-mail it must be the wee hours of the morning that's got all my defences down.**

John: **Yes, you did, but it sounds as if it was the music in these wee hours that relaxed and released you, as you put it. Was it any particular part of the music, instrument or song that was special for you?**

Debbie: **No, it was all of it ... the total [with emphasis] effect ... I was overwhelmed by the love and mercy of God. Quite frankly, I was in a very peaceful place. I think it's like getting out of the snail's house and being a slug almost, because you are without the covering of your shell ... your protection ... and I think sending that e-mail, I didn't have to send it to you ...**

### **Step 3 TMU27**

The total effect of the music mediating the love and mercy of God “holds”, relaxes and releases Debbie to “chill” and puts her in touch with deeper needs and more vulnerable desires than simply the hurt feelings which gave rise to her eviscerated logic, rationalisations and self-protective strategies. This “slug” (the essential yet vulnerable Debbie) rather than the “snail” (the protected Debbie in her shell and defined by her logic and rationalisations) was able to express and naturally share her insights in the e-mail to me.

### **Step 4 ITMU27**

*What?* The total effect of the music enables Debbie to calm down, to stop being angry and to relax. This is essential for realising her insight, expressing it and communicating it to me in an e-mail.

*How?* The total effect of the music mediating the love and mercy of God ‘holds’ Debbie and enables her to calm down, to stop being angry and as she relaxes she gets in touch with deeper needs and more vulnerable feelings and desires than just the hurt reactions which gave rise to her logic, rationalisations and self-protective strategies. So she’s able to get out of her protective shell, and become more vulnerable, more human and more able to communicate honestly in the e-mail.

## Step 2 MU28

Debbie: **I didn't even know what prompted me to send it to you ... I could have deleted the whole thing ...**

John: **Well, you did start the e-mail with "I desperately need to see you", and we did meet the next day.**

Debbie: **OK ... yes, I did desperately need to see you ... I desperately needed to speak to you because at that point ... at that point ... you remember I said to you when I lost my kitten, Tigger, I had to speak to someone ... I had to verbalise it ... I desperately needed to speak to you.**

## Step 3 TMU28

Debbie is not sure why she sent the e-mail. She could have deleted it, but she realises she desperately needed to verbalise what was going on in her. Perhaps she needed affirmation/assurance about her emerging insight.

## Step 4 ITMU28

*What?* Debbie is not sure why she sent the e-mail, but she desperately needed to verbalise it. Deleting it would have been like deleting the emerging insight, as a parallel to burying Tigger and the evidence, and then carrying on as if nothing had happened.

*How?* Debbie didn't fully understand why she was sending the e-mail, or what the implications were, but she was aware of desperately needing to verbalise her emerging insight, in testing its validity and seek help in what to do about it.

## Step 2 MU29

Debbie: **And this was at four in the morning, and I was pretty relaxed at that time. Up until this point I had this freedom ... I didn't have to do anything right ... I could go to sleep when I wanted to ... I could do what I liked ... I could sit up all night if I wished ... I was a free spirit at that point. I was calm ... I was truly calm, John, I really was. And that was why I desperately needed to tell you, because ... quite frankly, who the heck was I to think that I was so cool and that there was nothing wrong with me? ... and, most importantly, maybe I should work hard at reconciliation. I think I headed the e-mail "Fear and Confusion" because I needed someone to say "you can put your toes into cold water again". Fear would have prevented me from even contemplating it. The question of how**

**does all this work out on a practical level raises “fear and confusion” for me ... most of all a fear of rejection.**

**Step 3 TMU29**

Debbie was relaxed and had a sense of freedom and calm. Then fear and confusion began raising some distress, self-doubt and concerns about her insight. She needed reassurance. She was most afraid of Mark’s rejection and how this insight about working hard for reconciliation would work out in cold reality.

**Step 4 ITMU29**

*What?* Debbie’s experience of her ‘emerging insight’ and the new thinking that flowed from it at this point involved considerable fluctuations of feelings; both calm and confusion, freedom and fear, relaxation and rejection (her deepest and most central fear), as she faced the practical implications of giving birth to this insight in practice.

*How?* Debbie needed someone with whom to test and validate her emerging insight, to gentle her self-criticism and to encourage her over her fear of rejection from Mark, as she contemplated working at reconciliation in practice.

**Step 2 MU30**

**Debbie: And the only way I can protect myself from that is to reject Mark before he rejects me. I really am a very scared person. I feel more comfortable in front of strangers because they don’t know me. I feel safer ... safe from rejection ... rejection is the big thing. So I become the Mrs Brown person ... who doesn’t have to operate on a feelings level, but just says “sorry, sir, the bank can’t give you the money”. Jesus risked being rejected ... I’ve had to learn so much about not [with great emphasis] being Mrs Brown.**

**John: Yes, in the e-mail you say “I’m wanting guarantees that it [rejection by Mark] will never happen to me again. I’m not allowing God to be God. I’m directing and not trusting.**

**Step 3 TMU30**

This birth and new life involves a new way-of-being-in-the-world for Debbie; risking *not* using her usual self-protective strategy of rejecting Mark before he rejects her, and *not* hiding her feelings behind the “Mrs Brown persona”, the impersonal and withholding manager at the Bank.

**Step 4 ITMU30**

*What?* Debbie realises her self-protective and controlling strategies are self-defeating; “rejecting Mark before he rejects me” is like aborting her emerging insight, thoughts and feelings that she

wants to work towards reconciliation. She also realises that her “Mrs Brown persona” as the bank manager enables her to operate and make decisions without involving her feelings.

*How?* Debbie realises that her emerging insight that she wants to work towards reconciliation with Mark, cannot be achieved by controlling or rejecting, but only by risking, trusting and relating with feeling. This may be helped by her desire to follow Jesus who she knows “risked being rejected”.

### **Step 2 MU31**

John: [continuing to quote what Debbie says in her e-mail] **I think that the real reason is that whilst I am incredibly scared, I have wanted to work for reconciliation.**

Debbie: **Did I say that? Can you see, that wanting to work for reconciliation was touching that different level, John ... that was getting to the heart of where it was, and it's that thing that you know ... know it, but logically, you really want to rationalise it away ... all of those things ... this is stupid, everybody will think that I'm a total idiot. I mean, I am Mrs Brown, and I do all the right things ... I don't do stupid things ... I am way too clever to do all of those stupid things ... it's a real “nanas” thing to do ... there's just no reason to it ...**

### **Step 3 TMU31**

At one level Debbie wanted to rationalise this insight away out of fear, both because she wasn't convinced it was “logical” or sensible and because other people will think she is stupidly needy and dependent on Mark. Wanting to work for reconciliation was for Debbie touching a different level, getting to the heart of what she wanted and what she knew to be real and true for her.

### **Step 4 ITMU31**

*What?* Debbie's central insight involved the recognition that at the same time as being incredibly scared, at the core of her being Debbie was wanting to work for reconciliation with Mark.

*How?* This experience seemed to be at a “different level” of knowing; deeper, and truer, than her fears; not stronger, but more vulnerable and so, in terms of her old way-of-being-in-the-world, it does not make any logical sense at all. This “different level” seems to imply a different way-of-being-in-the-world.

### **Step 2 MU32**

John: **You also mention two things in the e-mail, after referring to the C.S. Lewis quote ... you say “on Friday [12<sup>th</sup> January 2001, i.e. ten days before her experience of insight and sending**

the e-mail] **I noticed on your bookshelf a book entitled** [at this point Debbie gasps and blurts out the title fractionally before I say it] **‘All Truth is God’s Truth’** [there is a conviction and excitement in her voice, compared with my more matter-of-fact tone] **and I could not help but question my reluctance to accept anything that Mark had said as being true’**. **Do you remember where it was you saw that book?**

Debbie: **It’s on the bookshelf, up there somewhere** [pointing] **... it’s either black writing on a white background ... or white on a black background ...**

John: **You’re right!** [she had pointed to the exact place. I have approximately 4 000 books in my study/consulting room on all four walls]. **Here it is ... Holmes, Arthur *All Truth is God’s Truth*** [Eerdmans 1977. It is a slim and unobtrusive paperback]. **It’s black writing on a white background. Now, I didn’t know anything about that, and I expect I was saying something frightfully important at the time** [Debbie laughs out loud at this point as if releasing tension] **... but much more importantly you were gazing at my bookshelf and at some level of consciousness, you picked something up which spoke to you, and said something much more important than what I was saying at the time.**

Debbie: **But it’s true ... you know something ... I looked at ... I don’t know why that struck me ... I’m not quite sure why it did ... I didn’t know what you were saying to me ... but obviously ...**

John: **In my notes of that hour, there is no reference to it, so obviously you didn’t say anything about it ...**

Debbie: **No, it’s one of those things ... you see something, it is like shocking ... Wow! ... it was one of those “Wow!” things ...**

John: **But it stayed with you and it was important enough for you to mention it as the second thing in the list of things in the e-mail.**

Debbie: **Yes, because if I, in my logical approach to it now, would say to you it’s one of those shocking things ... it’s one of those things that you would notice and remember ... it’s not at a level where we’re talking ... it’s at the deep side of you ... and I am one of those people that see one of those things and say, “Wow!” ... that’s big, and not knowing that I would use it again ... it’s just one of those deep things for me ... and yet it was that thing when I was operating at that deeper level ... it was that, part of that, which just connected.**

### Step 3 TMU32

This particular experience of insight through seeing the title of a book, contributes to the central insight. Debbie is struck in a powerful and direct way by a book entitled *All Truth is God's Truth*. It made a considerable impact on her, making her question her reluctance to accept anything Mark had said as being true. But the full implications and significance of this insight didn't come to Debbie until ten days later while listening to music.

### Step 4 ITMU32

*What?* This particular experience of insight, that in order to protect herself Debbie is 'labelling' Mark as a "liar", is eidetic; it is direct, powerful and primary; the opposite of the indirect, disempowering and secondary rationalisations and self-protective strategies to which Debbie has just referred [in MU31].

*How?* Debbie doesn't know why the book title *All Truth is God's Truth* struck her. It seems to have jolted her spiritual awareness, and shocked her. So she experiences insight as *impact* (often characterised as a "Wow!", "Aha!" or "Eureka!" experience). Debbie also didn't know at the time that the book title would come back to her later, and connect with such significance, challenging her reluctance to accept anything that Mark had said as being true. She also experiences insight as *interpreting*; the meaning and significance of the experience is like hearing an echo within, of the un-thought known.

### Step 2 MU33

Debbie: **So as I said in the e-mail, I had to question my reluctance to accept anything that Mark has said as being true. I knew I was only seeing my [emphasised] truth as being real.**

John: **Did you realise that in the session, or did you think about it later? Or was it when you were listening to the music that night that the implication of the title of the book came to you?**

Debbie: **No ... no ... not in the session. It was while I was listening to the music. I was so fed up, I would never have acknowledged any of that. While I was listening to the music, I was operating at a different level.**

John: **Then did it come to you suddenly while listening to the music, or gradually over a number of minutes?**

Debbie: **I think it wouldn't have been all that suddenly ... just slowly, just gradually ...**

### Step 3 TMU33

This experience of seeing *All Truth is God's Truth* made her question her reluctance to accept anything that Mark had said as being true. She knew she was only seeing her truth as being real. But she was so fed up she couldn't acknowledge any of that. It was ten days later, listening to the music and operating at a "different level" that gradually she was able to acknowledge the fuller significance and implications of this experience, and it became an important insight, contributing to and strengthening her central insight that she wanted to work with reconciliation with Mark.

### Step 4 ITMU33

*What?* Debbie saw the title *All Truth is God's Truth*. It was ten days later that she had the insight that she was only seeing *her* truth as being real. She came to *see* this gradually while listening to music.

*How?* First she experiences insight as *impact*, the influence of the life world on the self. It was ten days later that she experienced insight as *interpreting*, the influence of the self on the life world. Each is what it is only in terms of the other, as interwoven strands of a single fabric. The experience of insight here is of Debbie letting the life world differences *be*, in letting them touch her at the same time as entertaining the emerging meanings and letting them *be*, as they gradually came to co-constitute a larger whole of meaning.

### Step 2 MU34

John: **In your e-mail you mention "on Saturday afternoon, when you apologised for being barefooted, I was struck by the natural way you and Jill [my wife] were relaxing together and I was strongly reminded of how Mark and I spent our times together. It's pretty much the same, I'd forgotten or quite simply refused to remember, the good we shared together, especially the parts I know of, are not the parts I choose now to focus on". So it seems to me that there's another fascinating little detail that spoke to you ...**

Debbie: **Yes, something happened and I'd phoned you, and said "John I really need to speak with you", and you very graciously agreed to see me and you were bare-feet, and it's something that is pretty much a detail like seeing the book on your shelf, which I almost noticed but I did not notice it ...**

John: **Let me just interrupt you there. That's a fascinating phrase "which I almost noticed but I did not notice it". Can you say a little more about that?**

Debbie: **I would notice something, and I wouldn't be rude enough to say it, I'd just keep it, so I won't notice it ... I won't mention it ... I won't acknowledge it at that point. It would be something that I had noted.**

John: **So it was stored away ...**

Debbie: **Yes ...**

John: **When you saw my bare feet, did you make the connection with good relaxed times that you spent with Mark straight away that Saturday afternoon, when you came to see me? or was it later? ... or was the memory and connection evoked by the music you were listening to on the evening you wrote the e-mail?**

Debbie: **It was definitely not that Saturday, because if your toes had reminded me of Mark I would have stamped on them, because I was very angry with him ... it was really when I sat down with that music ... I don't quite know what finally ... finally got me to see things differently.**

### **Step 3** TMU34

Another little experience of insight, or “reality check” came through seeing my bare feet, and again this contributes to the central insight. Debbie was “struck” by the natural way my wife and I were relaxing together and was only later (36 hours later) strongly reminded of similar times with Mark and realised she had refused to remember the good times they had shared together.

### **Step 4** ITMU34

*What?* To protect and strengthen herself in rejecting Mark, Debbie refused to remember the good and relaxing times they shared together. Debbie was “struck” by the natural way my wife and I (with barefeet) were relaxing together but she did not make the link of similar times with Mark. It was an “oversight” at this stage; in fact her use of language suggests that if the recognition of the “insight” had surfaced she would have “stamped on” it, because she was very angry with Mark.

*How?* Barefeet suggest not only relaxation and good times together, but also vulnerability so, under the influence of the music, she comes to recognise and value as a quality in her husband a vulnerability that she herself has lacked up to this point. Again Debbie experiences insight as *impact* and insight as *interpreting* thirty-six hours later. The experience of insight is of Debbie letting the life world differences *be* at the same time as entertaining the emerging meanings and letting them *be*.

## Step 2 MU35

Debbie: **But you know, John, God’s timing was absolutely perfect ... because that was the morning Mark’s dad died. Mark phoned me about six o’clock in the morning, after I’d sat up all night and typed that e-mail, and sent it to you at about four in the morning ... that was a big day ... I’d never, ever, have sent you that e-mail if Mark had ‘phoned first ... I would have just left it, because a part of me would have said “no” ... I think it would have been a situation of my getting back to the point of not being held and that I’d rather forced myself on him, and he might feel he was forced to hold me, and now that he is hurting ... so I have to be this big hero or something ... so I wouldn’t have dared put into action what I was saying in the e-mail or even send it to you.**

John: **I knew that the timing was very close, but I didn’t realise that it was as close as that. And did Mark’s dad die during the course of that night?**

Debbie: **Yes. Shocking. I’d like to think that he knew that we weren’t going to get divorced.**

## Step 3 TMU35

Debbie’s experience of “God’s timing” (synchronicity of “inner” and “outer” worlds) was an important confirming factor for her of the truth and importance of her insight about her desire to work for reconciliation. She would never have sent the e-mail or dared to put it into practice if Mark had rung first (just two hours earlier) because of her awareness of her insecurity and her need to be held combined with her fear of forcing herself on Mark when he is hurting by suggesting working at reconciliation.

## Step 4 ITMU35

*What?* Debbie had a strong sense of synchronicity, reinforced by an experience of transcendence over hearing about the death of Mark’s Dad, which confirmed her central insight about wanting to seek reconciliation with Mark, and helped make it possible.

*How?* Debbie is very clear that she would never have *sent* the e-mail containing her insights to me if Mark had phoned first, out of fear of taking advantage of his vulnerability. She would not have *acted* on her insights in this e-mail but would have continued her ‘false self’. So Debbie’s central insight, that she really wanted to work for reconciliation with Mark, was dramatically enhanced and practically empowered by this experience of synchronicity and transcendence between “inner” and “outer” worlds.

**Step 2 MU36**

**John: So a lot [with emphasis] of things were going on that night challenging your way of being-in-the-world, not just your way of thinking, when you were listening to the music?**

**Debbie: Yes. And when I'm in that place when I really look at things ... when I'm in touch with myself at that funny level ... those things are pretty meaningful ... because it's like I'm able to connect with my Self<sup>37</sup> at my feelings level ... not on a superficial level ... not on a level where one normally relates from ... at a deeper level of my Self. So that's how come I would probably recall those things, because those are things that happen at a deeper level for me ... and remembering the times we spent together, the things that you kind of put in that deeper place ... [a very long pause] ... Yeah, pretty fascinating. So that's what I identified ... so, in all, that e-mail, when I was sending you that, I was at that deeper place ... and I was really in touch with who I was ... I was not uncomfortable ... I don't think I was uncomfortable at all ... I was more shocked at all the realisations I was ... [pause] ... coming to, I think ... or that I even ... [pause] ... picked them out, I think ...**

**John: Were you deliberately mulling things over? ... like trying to solve a problem? or making a list of all the issues? ... or did the things that you expressed in the e-mail just come to you? You've just said you were "shocked" at all the "realisations" you were coming to, but you also say that you "picked them out". Perhaps different ones came in different ways?**

**Debbie: Things came to me, and it's pretty much the same when I'm writing my journal ... I'm often surprised when I read them afterwards at how clearly I've expressed my feelings about things ... when I'm upset or angry. When I'm writing my journal I'm not the logical, ordered, organised Debbie ... I'm the other Debbie ... if I can say that without sounding like Dr Jekyll and Mr Hyde [laughing].**

**John: So you're not trying logically to solve a problem ...**

**Debbie: Nothing ... nothing ...**

**John: You're not even making a list of all the issues so that you can solve them?**

---

<sup>37</sup> I originally transcribed this Self here with a small "s", but decided to ask Debbie about it because she had pronounced it with considerable emphasis. She was quite clear that it was "not the little self but the Self God meant us to be". I am aware that there may be a lack of consistency in this transcribed interview, but believe that the use of "Self" most accurately reflects Debbie's self-understanding, which after reflection and a very long pause, she found "pretty fascinating".

Debbie: **Nope ... I'm just doodling on ... I'm just emptying ... and then later when you read it, you say "Wow!", where did I come on that? You see, I don't even know that I intended sending that e-mail to you. So basically I was writing from my Self to my self and then I don't know why I put an e-mail address in it [laughing] ... it's the same as when I write in my journal, thinking that I'd be the only one to read it. Since I regard you as the other side ... the other self ... so you could get it.**

John: **Well, I feel very privileged.**

### **Step 3 TMU36**

Debbie says it is particularly meaningful for her when she is able to "connect with her Self" ("the Self God meant us to be") which she experiences at a deep feelings level, sometimes in therapy, sometimes listening to music, and sometimes in journaling. She was in touch with her Self when composing the e-mail; surprised and shocked at realisations to which she was coming. She is aware that this is similar to writing her journal as she is "often surprised later to see how clearly I've expressed my feelings". This happens when she is not the logical, ordered, organised Debbie, but when she is reflecting meditatively without a particular intention and in an unguarded way in touch with her feelings, needs and desires.

### **Step 4 ITMU36**

*What?* Meaningful self-insight occurs for Debbie when she connects with her Self in touch with her feelings, needs and desires and occurs particularly in therapy while listening to music or writing her journal.

*How?* Debbie's self-insight is not a result of a consciously organised, ordered or logical process of self-criticism, or self-examination but is facilitated by an intentional yet relaxed, playful, unguarded, unselfconscious process of meditative reflection which creates space to be surprised by something from the "Self" comparable to dreaming.

### **Step 2 MU37**

John: **I'm wondering whether, with the benefit of hindsight now, and the distance and perspective in which you can see things ... I'm wondering whether you feel that night listening to music, mulling things over and coming to a series of insights which you expressed in the e-mail to me, was a fairly critical turning point?**

Debbie: **That was [strongly emphasised] a big-time turning point ... that was. It was almost like ... [pause] ... a flower finally getting out of its tight little bud-form ... it was a big**

**turning point, it was like a flower opening up ... I think it's something like that, because it was the [emphasised] turning point, it was what I really wanted, what I truly, truly felt ... it was actually overcoming the fear, and being brave enough to actually stand and make that statement, and say "I will do this" [this was said quite loudly and firmly, like a declaration of being-in-the-world ... then dropping her voice, Debbie continued] ... you almost don't have an option, you have to do it ... knowing very much that for this very respectable, organised, ordered person that I am ... that is "nonsense". And that type of turning point is "nonsense" in the light of my whole life that I live ... does it make sense of my always logical, always rational, always thought-out way of being? ... no, it didn't make sense.**

**John: But as you look back now, following the reconciliation, following Mark coming back home, following the renewal of your marriage vows in June 2001 ... and we're nearly two years later now, how do you feel about that decision ... was that a moment of madness or a moment of profound sanity?**

**Debbie: To you I'd say it's one of the most sane things I did ... actually listening to and daring to do that. It is probably ... it is scary at the time ... it is probably ... I think I likened it to who am I not to be crucified just a tad, if Jesus did the big crucifixion ... I don't quite know if I said that to you?**

**John: You do say in the e-mail "the fact that I've been accepted and forgiven by God makes me wonder why I am not able to do the same, and why I'm scared of being crucified again, when he would probably do that for me again".**

### **Step 3 TMU37**

The central insight to seek reconciliation with Mark was a critical turning point for Debbie involving a big change in terms of her way-of-being-in-the-world, ("like a flower finally getting out of its bud form ... opening up"), revealing what she really wanted, what she truly felt and what, in terms of being true to her inner being, she "had" to do. It seemed highly risky in terms of her previous way of being-in-the-world, yet running the risk of being 'crucified' again resulted in a 'resurrection' in her way-of-being-in-the-world.

### **Step 4 ITMU37**

*What?* This central insight was a critical turning-point for Debbie, involving understanding of what she really wanted, courage to risk rejection by Mark and recognition of a categorical imperative contrary to her normal, respectable and self-protective way-of-being-in-the-world.

*How?* Debbie acknowledges that her series of insights expressed in the e-mail represent a critical turning point, as well as a blossoming in her relationship with Mark. She recognises the significance of a series of “shocks” culminating in the timing of Mark’s telephone call about his dad’s death. This is *insight as impact*; the influence of the life-world on the self. She is also very aware of the on-going organic process of being true to her understanding of what she really wanted and truly felt. This is *insight as interpreting*; the influence of the “Self” on the life-world. She also acknowledges that contrary to her normal self-protective way-of-being-in-the-world and fear of rejection by Mark, she *has* to take the risk (almost a categorical imperative) encouraged by a sense of authenticity and awe of these insights of putting all this into practice. This is *insight as action*; being true to these new emerging meanings and significations of the Self and the life-world, which is a new way-of-being-in-the-world.

## Step 2 MU38

Debbie: **He would ... he would ... and that was because you know, John, two years ago I wouldn’t have likened it to a flower experience, I would have likened it to wood being burnt ... St John of the Cross has this famous metaphor of the log of wood being transformed into fire. It comes into one of Thomas Green’s books ... do you have it?** [pause to find it].

John: **Yes, here we are in Thomas Green’s *Opening to God* (1977 p.81 . Notre Dame: Ave Maria Press). [Reading]: “True knowledge of God goes hand in hand with a painful self-knowledge ... as the wood burns, it becomes blackened, it cracks and steams, and all the knot holes and flaws are exposed. If the log could speak, it would cry out: ‘My seeking to become fire was a mistake! I am now worse off than when I started – black, ugly and flawed. I was better off before’. The log is the soul, and the fire is God, and the truth, of course, is that the log is not worse off than it was before. All the ugliness and defects were present before, but they were concealed. The only way the log can become fire is to be revealed honestly and openly as to what it is in itself.”**

Debbie: **Yes, it’s painful to me ... when the wood burns, it gets sore ...**

## Step 3 TMU38

Two years ago the experience was not like a flower opening gently; it was like wood (the human soul) being burnt painfully (experiencing heat and revealing flaws and knots) as it is transformed into fire (God), for true knowledge of God involves painful self-knowledge.

#### Step 4 ITMU38

*What?* Debbie's experience of insight involved painful self-insight. Two years later she describes it as being a natural and expansive process like a flower opening, but at the time it was a crucifying and painful reductive process, like wood being burned and transformed by fire.

*How?* In terms of Debbie's faith, understanding and experience, crucifixion precedes resurrection; being burned comes before opening like a flower. This may give her hope and help her endure the painful process of personal flaws and weaknesses, as well as relational 'knots' being exposed before being transfigured by fire.

#### Step 2 MU39

**Debbie: the flower doesn't get sore ... now it feels like the flower in full bloom ... when I asked Mark about the whole question of confidentiality in this research, he said how freeing it is not to have to hide, lie or cover up. That's really something for him to say, isn't it, after eighteen years of covering up. That is why we are both happy for our names and details to be known<sup>38</sup>. We're quite clear about that. As you know, I'm a very private person, yet we are both so different about it now ... they can know at the office that if you prick me I'll bleed ... I'm OK with that. Mark says to me "you really are on a different level". You see Mark would always say, when I got home from work "won't you please get undressed and let Debbie arrive at home and leave Mrs Brown and her stockings and pearls aside ... " I would be dressed for work ... almost as if I feel I'm respected for the way I dress. I kind of have authority.**

**John: Are you talking about "power dressing"?**

**Debbie: Yes, probably. I have always been like that ... the thinking and analytical person rather than the feeling person ... Mark wants the feeling person to arrive at home ... that's why he asks me to get undressed. Mark is a very feeling person.**

#### Step 3 TMU39

But now it feels to Debbie as if the flower of their relationship is in full bloom, so there is no need for confidentiality in this research ... after 18 years of Mark deceiving her and others.

Debbie also has a different way-of-being-in-the-world, more open, less false; a more vulnerable Debbie, less 'the bank manager Mrs Brown'; more feeling, less analytical.

---

<sup>38</sup> Despite the fact that Debbie and Mark say they are "both happy for our names and details to be known" it was judged more appropriate, in consultation with my supervisor, to give them pseudonyms.

#### Step 4 ITMU39

*What?* The end result of Debbie's experience of insight, two years on, is that she as a person, and her relationship with Mark, feel like a flower "in full bloom".

*How?* To maintain this involves, for Debbie, the challenge of living consistently with more openness, less covering-up; more vulnerability and feeling, less power and analytical thinking; a different way-of-being-in-the-world in relationship with Mark.

#### Step 2 MU40

**John: Is there anything else that you want to say about this experience of insight? This experience of insight does seem to me to be a very profound and important experience for you, that your life would be very much the poorer if you had in fact clung to those defences.**

**Debbie: Yes, and I would have been that much the poorer for not taking that risk, because it was ... it was ... actually being brave enough to do it, and I think if you have those insights you can do it [pause] ... and the comfort in it is really that even if you do it and it doesn't work, you can say, if you're OK with it, "I made a mistake"... [after a pause she adds, in an almost inaudible voice] ... I suppose. [Then in her normal voice again.] But it wouldn't be the most natural thing if you're a very careful person, and I know how careful I can be with myself ... it takes a bit ... more than a bit ... it takes some courage to do ... but you will know ... you will know that it's right ... coming to that knowledge is shocking ... it is shocking in an almost scary way ... and as I've said to you, I have to tell somebody ... it is shocking how real it is to you, it is ... the stuff you'd actually write down, it is that shocking ... and because it's so real, it helps you to risk it. For me, that is it. It is real ... it is real ... I am actually very blessed, because imagine ... imagine if I didn't even bother with those feelings. Firstly, I wouldn't even be with Mark ... or sitting here talking to you, secondly I would probably have been like that person who packed themselves away, and just lived in that plain, safe place of Hell.**

**John: Are you referring to the way C.S. Lewis puts it ... ?**

**Debbie: Yes ...**

**John: He says "The only place outside Heaven where you can be perfectly safe from all the dangers and perturbations of love, is Hell".**

**Debbie: Yes.**

### Step 3 TMU40

The experience of insight and the shocking reality of the self-knowledge involved, enabled Debbie to know it was important to “risk” putting it into action, provided that she could get beyond her need to be “right” and was able to say “I made a mistake”. For a careful person like Debbie, it took some courage but “because it is so real, it helps you to risk it ... imagine if I didn’t even bother with those feelings”. In retrospect she experiences herself as “blessed”; she is in relationship with Mark and rescued from a self-protective lovelessness.

### Step 4 ITMU40

*What?* Debbie recognises she would be much poorer if she had not taken the risk of putting her insights into action.

*How?* In struggling with the risks of putting her insight into action, Debbie is very aware of the interaction between her self and the life-world. She is aware it requires *courage* of the self to act; and she is encouraged by the reality and clarity of the series of shocks of the life-world on her self. Paradoxically she realises that taking this risk is also helped by the *humility* of the self to be able to admit to making mistakes, facing painful self-knowledge, and confronting the alternatives of not acting.

### Step 2 MU41

Debbie: **And like the wood ... he [St John of the Cross] uses that analogy in your relationship with God, but that is one aspect. But like the wood there are all those knots and all those things they were always there [with emphasis] ... it was just hidden ... I couldn’t see it ... and that was how my relationship with Mark was ... having gone through the pain, through the fire ... the love was still the same, we were still married, we were still two people who loved each other ... there was always chinks and knots in between ... and having gone through the pain, through the fire ... we have just become a different form really ... that’s where it’s at.**

John: **So although St John of the Cross uses the wood in the fire as an image of the painful self-knowledge that goes hand-in-hand with a true relationship with God, you’re saying it’s also true of the relationship between you and Mark?**

Debbie: **Yes, for any meaningful relationship ... any meaningful thing ... it is that. My relationship with you, John, where I share ... you have seen all my knots ... I have shared with you all those things, I have told you all of the ugly parts of my life, and so whether you**

have come to experience it as this wood, for me it is because I connect with you ... I have this freedom to just be me with you ... I have the freedom to be me with Mark, I have the freedom to be myself with God ... God knows me, but I need that freedom in all of life, in all relationships, truly connecting ... that is why everything is so ... it was like seeing your book on the shelf, it was like noticing your barefeet ... it was one of those things ... it'll stay with me ... yeah, yeah ...

### **Step 3** TMU41

The knots and ugly parts were always there in the wood; they were just hidden. Having gone through the pain and fire, Debbie and Mark's relationship has taken on a different form; Debbie is less controlling now and has greater freedom to relate meaningfully, to really connect, and to be herself with her therapist, Mark and God ... in all relationships.

### **Step 4** ITMU41

*What?* As a result of Debbie's experience of insight and acting on it, she has greater freedom to be herself, enjoys more vital connectedness with others, and finds life more full of significant meanings.

*How?* The weaknesses in Debbie and Mark and the complexes in their relationship were largely hidden; hence the 'shock' of discovering Mark's affair and the need for insight. Debbie is aware that suffering played an important and transformative part in her insight, and in putting it into practice she is becoming less controlling and more able to relate in a meaningful and vital way.

### **Step 2** MU42

**John:** Here's the last question. I'm wondering whether you found it difficult putting these insights into practice, and what's helped you to move from insight to action?

**Debbie:** Was it difficult? Yes ... in a way of being scared. Yes, it was difficult because this is going out on the ocean with one oar. OK, you've been rejected, so from that perspective it was difficult. Other than that, I think if I weren't scared of a lot of things I would probably achieve a heck of a lot [laughing]. What was my fear? Essentially I think that my biggest fear was that I was finally going to lose this man that I really loved ... so maybe even my fear was also a huge motivation to take action. I just think of that now ... maybe I was scared.

### **Step 3** TMU42

It was difficult for Debbie to put insight into action because she was scared of being rejected and of not being in control of the process, but she recognises that her biggest fear was of losing the man she really loved, and that fear was a huge motivation to put insight into action.

### **Step 4** ITMU42

*What?* It was difficult for Debbie to put insight into action because it involved giving up her “control” which was the way she handled her fear of “rejection”.

*How?* Debbie realised her biggest fear was that she might lose Mark and that, despite the deep hurt of his long-term affair, she really loved him, needed him and wanted to be with him. So she was also hugely motivated by this fear to take action.

### **Step 2** MU43

**John: Perhaps some of those insights you were working towards in therapy ... ?**

**Debbie: Yeah ...**

**John: But they couldn't have come together without the music, and your co-operation that night. And some of those insights in a sense you've continued to work with in therapy. Is that a fair way of putting it?**

**Debbie: That is accurate, yeah. And once I'm aware of it ... it's always there and I remind myself of it. That's how I work with it. For example that bit in the e-mail about the marriage vows of Tony and Tamara “in sickness and in health” ... and considering Mark's behaviour as a form of “sickness” [MU12] ... that's not how I see it now ... at that time it wasn't worked through ... for me to see it as a “sickness” ... perhaps it should be a “weakness” ... but that was my way of trying to get my mind around it, to say “it's OK” ... the way I needed to package it for myself at the time and to try and understand it logically [emphasised]. But now I have more insight, now I can be more vulnerable [emphasised] about it and see my part in it all. My controlling ... and the effect on Mark of being so “proper” ... you know the Mrs Brown person ... in fact, I wish I could be a bit more “sluttish” and comfortable being myself! I'm not quite sure I can pull it off being a slut!**

**John: Well, Debbie, you're not doing badly! [We both laugh.] Thank you very much.**

**Debbie: Thank you. I don't know whether you should be thanking me ... but it just helps. When I get in touch with those real “Wow!” moments in my life, it just makes my life that much more special, because it's in remembering that ... yeah ... so thank you, John.**

### **Step 3** TMU43

Debbie's experience of insight was, and is, an ongoing process. Some insights Debbie was working towards in therapy, but they "came together" in the early hours of the morning, listening to music with her soul, experiencing both the agony and the ecstasy. But these "wow" moments, and ongoing awareness, make her life more meaningful. She gives an example of an insight in process, when she refers to Mark's adulterous behaviour as "sickness" in terms of the marriage vows as a way of "packaging it for myself at the time". But now she has more insight, and can be more vulnerable and see her part in it all ... particularly her controlling ... being so 'proper' ... and having such high expectations. She wishes she could be a bit more relaxed, less frigid, more 'ordinary' and natural, and less concerned to be 'good' and 'right'.

### **Step 4** ITMU43

*What?* The experience of insight for Debbie is not an event, but a series of events and an ongoing process. She gives an example of an insight in process, comparing her initial angry reaction to Mark's affair by throwing him out of the house, to seeing it as his "sickness" in their marriage vows, and then later being able to see her part in it all.

*How?* Debbie's initial reaction of throwing Mark out of the house was a way of expressing her hurt and anger by controlling the situation. Seeing Mark's infidelity as a form of "sickness" was her attempt to understand it logically, and formed an important part of the softening up process. Now she is less controlling and protective of her 'wound', more reflective and more able to be vulnerable and see her part in the co-determined relationship with Mark, and is clear about her desire to work at reconciliation with Mark.

## **5.6 The Situated Structure of Debbie's Experience of Insight**

Again the format of this section follows the pattern of the previous research participant and constitutes **step 5** (SSS), of the methodology.

The structure of Debbie's experience of insight has unique characteristics which are summarised as eight distinct moments depicting the psycho-logical process. It would be reasonable to call these moments 'substructures', since each is an integral unity besides being a moment of the larger structural process. Despite Debbie's mention of times, she does not experience these

“moments” in a linear way. Time is connected to her subjectivity; it circles back and forth, overlaps, criss-crosses, divides and spirals. In Alapack’s delightful phrase “In life all we have are moments” (private communication).

### **5.6.1 The Initial Stages and Precursors of Debbie’s Self-insight.**

- The participant was deeply hurt and very angry at discovering her husband’s long term affair (MUs 2,3,22,34). It confirmed her fear of rejection (MU30) and she felt she could not trust him over anything (MU16). It exacerbated her desire to be in control to avoid further hurt (MU14,30) and she struggled with loneliness as well as questions about her own adequacy as a wife (MUs 12,13). All this made it ‘unthinkable’ for her to get in touch with what became her insight; namely, her more vulnerable and deeper feelings, needs and desires; her true Self; including her desire to work for reconciliation with Mark (MUs 8,15,31,36).

*Structurally, this is insight blocked by disposition; an affective, cognitive and behavioural self-protective defensiveness in terms of her way-of-being-in-the-world.*

- In the sequence of eight strands in the build-up to the participant’s insight there is a pattern of her being “struck” by poetic images (MUs 20,21), a blunt question (MU15), a book title (MUs 32,33), wedding vows (MU12), barefeet (MU11), suggested interpretations in therapy (MU14) and a poem (MU14), but not being able to allow the full meaning or significance of these life-world events to emerge. She experienced ‘insight as impact’, but she was not able to “see” or understand their significance (MU22). They did not “come together” or “add up” (MU23); she did not get to the point of ‘insight as interpretation’.

*Structurally this is life-world events and issues raising questions, challenging her modus vivendi and impacting Debbie, prompting her towards insight, prior to her ability to interpret them.*

### **5.6.2 The Dynamic Core of the Experience of Insight.**

- The theme of being “held” in the therapeutic relationship emerges as an important structure in enabling the participant to get in touch with her true self, her underlying vulnerable feelings, and to move towards experiencing insight as interpreting (MUs 5,11). It enabled her to feel safe enough to explore thoughts, feelings and to share her sense of anger and vulnerability (MUs 2,7,8). It was a “holding” relationship that helped her in listening to her real needs and desires

(MU28). It was a necessary part of the structure in enabling her to experience insight but it was not sufficient on its own.

During the night of listening to music which calmed and relaxed her (MUs4,25), so that she could experience being “held” by the music (MU27), she had a sense of God’s unconditional love accepting her, despite her husband’s rejection of her (MU24). By focusing on the rhythmic, harmonious<sup>39</sup> and aesthetic<sup>40</sup> quality of the music, she got in touch with deep feelings, real needs and previously unacknowledged desires (MU27). She came to see and accept herself in such a way that it seemed like a birthing of her “true Self” (MUs25,36). So the shocking and striking experiences are the influence of the life-world on the self; this is *insight as impact*. The “Wow” and “Aha!” experiences are the result of the influence of the “Self” on the life-world; this is *insight as interpreting*.

***Structurally this is the counterpoint to the challenges, impact and questions; it is the holding, gentling and loving acceptance that enables Debbie to relax, respond and entertain the emerging meanings rather than trying to resist or control them; it results in insight as interpreting.***

- A pattern emerges of passive, active and reflexive elements in Debbie’s experience of insight. Sustained by the total effect of the music and interacting with it (MU33) six of the eight life-world events which had made an *impact* on the participant, came to be *interpreted* by her. In each she has a *passive* sense of being struck, touched or reminded; an *active* sense of questioning or working with it; and a *reflexive* sense of applying it to herself, of connecting, seeing and understanding (e.g. MUs 9,10,11,32). There are differing levels of awareness and potency in her insights, but the pattern remains the same in each; the exceptions, numbers five and six in the eight strands in the build-up to her insights, prove the rule because the pattern of *passive, active* and *reflexive* is not completed.

This pattern is also reflected and recapitulated in the way the participant listens to the music. There is a *passive* element in which she experiences the music as waves of calmness flowing over her (MU27); an *active* element in which she will put her own words to it (MU25); and a *reflexive* element in which she refocuses the music for herself and makes it her own (MU25).

---

<sup>39</sup> From the Greek *harmozein* ‘to fit together’ (Rooney 1999, p. 855).

<sup>40</sup> From the Greek *aisthesthai* ‘to perceive’: to be sensitive to, or to feel beauty (Rooney 1999, p. 26). So the English *anaesthetic* literally means ‘without feeling’.

***Structurally this pattern of passive, active and reflexive moods is what enables the process of negotiation from insight as impact (passive) to insight as interpreting (reflexive); to embodying the insight (active); it represents a movement from denial to acceptance, from blindness to insight, from being indecisive to effective action.***

- There appears to be a critical success factor for insight as interpreting in Debbie's experience. In the *passive* mood, meaning insists on having its own way and insight amounts to an allowing, even a suffering, of the emerging meanings. In the *active* mood, the research participant risks being creative and ventures meaning; she imagines. In the *reflexive* mood, she muses, meditates and applies it to herself. So she was able to let what *impacted* her *be*; instead of trying to control it. At the same time she was able to entertain the emerging meanings that she was *interpreting* and letting them *be*; instead of trying to control them. It is the synchronisation of these three experiences that emerges as the critical success factor in the structure of her experience of insight.

***Structurally one critical success factor for insight is the synchronisation of the passive, active and reflexive moods in the whole experience of insight.***

- "Being held" is a *sine qua non* in the structure for Debbie's experience of insight. This critical success factor was, in turn, entirely dependent upon, and made possible by, the participant's experience of being "held", by the music (MU4) and by God that night (MUs 26,27). She was also "held" in therapy (MU5) and sent the e-mail detailing her insights in the early hours of that morning to the therapist. So "being held" emerges as an important triangular modular main frame structure in her experience of insight.

***Structurally being held by the music, by God and by the therapist combine, inter-relate, complement, support and strengthen one another; together they constitute a gestalt, a holding whole which is more than the sum of the parts.***

### **5.6.3 Living it out: Insight as Action.**

- Several factors enabled the participant to live out her insight. Firstly, her strong sense of synchronicity and experience of transcendence over the timing of hearing about the death of Mark's dad, which dramatically enhanced the experience and confirmed the truth and

significance of her insight as well as practically empowering her to live it out (MU35). Secondly, the clarity and sometimes intensity together with the authenticity and aesthetic quality of these experiences of insight challenge her to remember and to risk putting her insight into action (MUs 4,25). Thirdly, there is the factor of trust or faith as well as courage to risk what is essential in living out her insight. She has to overcome her anxiety and fears, not deny them (MUs 37,40); the fear that if she didn't act on her insight she might lose her husband increased her motivation (MU42). Her Christian faith permeates this process and frequently helps (MUs 4,24,26), but on other occasions her slightly idealistic interpretations of her faith, combined with her high expectations of herself, hinders (MU19). Finally, another factor or constituent element in the structure enabling her to live out her insight is contained in two complementary luminous images: the log of wood being burned and turned into fire (MUs 38,41), and the flower "getting out of its tight little bud form" (MUs 37,39). The first describes painful experiences and relates to the impact of her life-world on the self; insight as impact. The second describes the delightful blossoming of the individual and relates to the expression of the Self on the life world; insight as interpreting. Both images are a necessary part of the structure making possible insight as action; the first continues to shed light on her ongoing process of learning to accept her vulnerability and the second challenges her to be true to her Self (MU43).

***Structurally three aspects of her learning experience challenge her to live true to her insight: the timing, clarity, authenticity and aesthetic quality of her experiences of insight; growing experiences of trust, faith and courage; and two complementary luminous images.***

### **5.6.3 The Results and Recurring Quality of Debbie's Experience of Insight**

- The result of the participant's transforming experience of insight was that she was able to engage in a process of reconciliation with Mark, and after five months they renewed their marriage vows. On this whole process she comments: "It's one of the most sane things I did ... actually listening to and daring to do that" (MU37). Now Debbie's way-of-being-in-the-world is significantly different. She is usually able to be less controlling and more vulnerable with others, has greater freedom to be in touch with her feelings and to be true to herself, so she enjoys more vital connectedness with others and finds life fuller of significant meanings. She experiences

lapses back into her old patterns of self-protective behaviour at times, fearing rejection, but usually quickly recognises this and is able to share her fear and vulnerability, and move on.

## 5.7 The Investigation of Roger's Experience of Insight

The format of this final interview follows the pattern of the two previous research participants, as do the steps in the research methodology.

### Step 2 MU1

**John: Roger, some time ago when I was watching a video of “A Brief History of Time” I was very struck by your contribution and comments about having an animated conversation with Ivor Robinson interrupted by crossing the road, and I wondered whether you could get in touch with that experience of insight, and its recovery later that day, and how you perceived mathematical truth directly through the process of “seeing” or insight?**

### Step 3 TMU1

Interviewer asks research participant to describe a particular experience of insight.

### Step 4 ITMU1

*What?* Interviewer asks research participant first part of interview research question, but fails to put the whole question (as in Section 3.6.3).

*How?* Interviewer felt a little intimidated and so failed to spell out the details of the request, namely: “what happened before, during and after; what you thought, felt and did?”

### Step 2 MU2

**Roger: Well, I'll do my best with these questions, whether they satisfy you, I don't know. I can describe that occasion. And what it was about, you see, this has to do with the issue of gravitational collapse. There was a certain amount of discussion of the question of what happened, when a massive body, perhaps a star, had exceeded its limit – if a star gets too massive and it uses up its fuel to keep it hot, and it cools down to a certain level, it starts to collapse.**

### Step 3 TMU2

Roger explains that the insight had to do with issue of gravitational collapse and what happens in that process.

### Step 4 ITMU2

*What?* The question under discussion was what happens when a massive body starts to collapse.

*How?* Roger will do his best to respond to researcher's question but doesn't know if it will satisfy. It was recognised at the time that if a star gets too massive and has used up its fuel to keep it hot and it cools down to a certain level, it starts to collapse.

### Step 2 MU3

Roger: **There is a theoretical limit on how big a star can be if it's cold, and the thing is that many stars are known which are greater than this limit, the question is, what happens to them? According to Einstein's general theory of relativity, there is a minimum size that an object of a given mass can have, it's called the Schwarzschild Radius, and I think that Einstein, as many other people, had thought you'd never get anything down to that scale, so they didn't worry about it particularly.**

### Step 3 TMU3

There is a theoretical limit to how big a star can be if it is cold. The question is what happens to a star when it reaches this limit.

### Step 4 ITMU3

*What?* Many stars are known which are greater than this limit. The question is, what happens to them?

*How?* According to Einstein's General Theory of Relativity there is a minimum size that an object of a given mass can have, but he like many people thought you'd never get down to that scale, so didn't worry about it particularly.

### Step 2 MU4

Roger: **But when quasars were observed – these are these very bright, as we now know, galactic centres which send out an enormous amount of light and radiation in various forms. These objects are so powerful that people found it very puzzling, and they also change in a brief time-scale, which tells you they must be very small, and estimates were**

made to indicate that these objects would have to be something, getting down to the kind of size this limit that people talk about, the Schwarzschild Limit.

**Step 3** TMU4

When quasars were observed, estimates indicated that they would have to be getting down to this Schwarzschild Limit.

**Step 4** ITMU4

*What?* The discovery of quasars raised questions that had been previously been regarded as unimportant.

*How?* So an “oversight” was challenged by the emergence of new and puzzling data as well as estimates that required new understanding and insight.

**Step 2** MU5

Roger: **John Wheeler in the US particularly realised the importance of this issue, because it’s a place where Einstein’s general relativity starts to play a very serious role, whereas up to that point one didn’t have to worry about it too much.**

**Step 3** TMU5

John Wheeler realised the importance of this issue.

**Step 4** ITMU5

*What?* John Wheeler particularly had the insight to recognise that, with the discovery of quasars, Einstein’s General Theory of Relativity started to become very significant.

*How?* John Wheeler recognised the importance of this discovery of quasars and had the insight to take seriously the consequences of the emergence of new data and estimates which flowed from the data. He particularly understood that what had previously been regarded as insignificant had to be completely re-examined in the light of the new scale that was getting down to the crucial point of collapse, the Schwarzschild Limit.

**Step 2** MU6

Roger: **I should have explained that there was a model of what happens when a star collapses, which is due to Oppenheimer and Snyder, which was produced just before the Second World War, and they had just studied exactly spherical collapse, so if you assume the body is exactly spherically symmetrical, it collapsed into this singular state in the centre (i.e. where the dimensions of space and its linked dimension of time simply disappear), that**

**is where the densities become infinite and the curvatures become infinite, and it goes wrong in the middle. And this is a great catastrophe, if you like, so you don't know what to do with it when that happens.**

**Step 3 TMU6**

There was a model of what happens when an exactly spherical star collapses.

**Step 4 ITMU6**

*What?* The accepted understanding at that time of gravitational collapse was based on the model of Oppenheimer and Snyder, according to which an exactly spherically symmetrical star would collapse into a singular state in the centre.

*How?* The collapse at the centre implies the dimensions of space and time simply disappear. There was little understanding of, or insight into, this catastrophic event at the time. (This is now known as a black hole.) It is precisely this problem that arouses Roger's curiosity and on which he focuses his attention. He does this in the face of issues that seem completely overwhelming.

**Step 2 MU7**

Roger: **Many people believed that if you were in a more realistic situation, where a celestial body was irregular, maybe rotating, that instead of reaching a singular state, it would swirl around and maybe come spewing out again. Some Russian work by theoretical physicists seemed to confirm that in a general case you wouldn't get this singular occurrence.**

**Step 3 TMU7**

Many people believed that in a more realistic situation a celestial body would not collapse into a singular state.

**Step 4 ITMU7**

*What?* Many cosmologists believed that in a more realistic situation where the body was irregular and maybe rotating, it would not reach a singular state of collapse but that the matter would swirl around and maybe come spewing out again.

*How?* Some Russian work by theoretical physicists seemed to confirm that you wouldn't get this singular occurrence, but clearly Roger was keeping an open mind on this issue, which was to lead to his insight. Had he accepted the results of these theoretical physicists he would not have come to his insight.

### Step 2 MU8

Roger: **But anyway, I was thinking about this question in relation to other problems to do with singularity – the Big Bang being the other main example that one knows about. The standard symmetrical models produced told you that there was this initial singular state, sort of like the other side of the picture, you have the initial, the beginning, and this is in a sense the end, that if you tried to follow this collapsing star in you would encounter this singular state at the end, which would be the end of time, as far as you're concerned.**

### Step 3 TMU8

Roger was thinking about this question in relation to the Big Bang theory and other theories/problems.

### Step 4 ITMU8

*What?* Instead of just accepting the standard symmetrical models comparing the initial Big Bang singular state at the beginning of time with the singular state of collapse at the end of time, Roger was focused on the problems and unanswered questions to do with singularity.

*How?* Roger was thinking about this question in relation to other problems to do with singularity. So relational perspectives and lateral thinking played a role in his approach. Instead of accepting the status quo, Roger has an attraction to mystery, a questioning curiosity and an ability to tolerate and work with unresolved issues prior to insight.

### Step 2 MU9

Roger: **Now, the question is, if this is just an artefact of the symmetry, or if you have a more general collapse, would you avoid the singularities? And I'd been thinking about these things for other reasons, partly to do with cosmology and partly to do with other issues in general relativity.**

### Step 3 TMU9

Roger questioned whether singularities were based on the symmetry and would not occur in a more general collapse.

### Step 4 ITMU9

*What?* Roger wondered, if you had a more general collapse, in a more realistic situation, whether you would avoid the singularities. This is an indication of the type of questioning that he was doing which prepared the way for further thinking.

*How?* Roger was thinking about these things for other reasons, partly to do with cosmology and partly to do with other issues in general relativity, so he was coming at the question obliquely or in terms of relational perspectives and lateral thinking, refining his understanding of the issues and questions (an enfolding) that would prepare the way for his experience of insight (an unfolding) in terms of his developing understanding.

**Step 2** MU10

Roger: **I started thinking about this collapse problem and the problem there was, how do you characterise an unstoppable collapse? What we now call a black hole, where objects fall in and they can't get out, in a sense. So you want to characterise somehow the fact that the collapse has reached a point of no return.**

**Step 3** TMU10

Roger was wondering how you characterise an unstoppable collapse.

**Step 4** ITMU10

*What?* Roger wanted to characterise a gravitational collapse that has reached a point of no return.

*How?* Finding a way to characterise this situation seemed crucial to Roger.

**Step 2** MU11

Roger: **And the question was, if you could characterise that in some way, could you prove that it would lead to this singularity? So I needed some way of characterising this which didn't depend on the symmetry, it had to be a *qualitative* [with emphasis] characterisation.**

**Step 3** TMU11

Roger wondered if you could characterise it in some way, and would you then be able prove that it would lead to this singularity?

**Step 4** ITMU11

*What?* Roger's continuous questioning with an open mind has now clarified the central question. He realized that he needed some way of characterising this unstoppable collapse which didn't depend on the symmetry.

*How?* He realised that the crucial attribute required was that he needed to find a *qualitative* characterisation.

**Step 2 MU12**

Roger: **The trouble with this particular story is that since I did forget the actual occurrence [laughing] initially, I can't really tell you in detail what my thought processes were, so in some sense it's not a good example; in another sense it's quite a striking one, you see.**

**Step 3 TMU12**

Roger did forget the actual occurrence of his insight initially, so can't say what his thought processes were in detail, but because he was able to recall the insight later it is quite a striking example of an insight recovered.

**Step 4 ITMU12**

*What?* Roger has described in detail the context of this experience (the ground). But he did forget the actual occurrence, process and content of his nascent or virtual insight (the figure).

*How?* The context (ground) is so salient that although he cannot remember the content (figure) of the experience, it emerges later as figure from the ground of his feeling. So it is an interesting and unusual example of an insight re-membered, or perhaps re-imagined.

**Step 2 MU13**

Roger: **I was vaguely thinking of this kind of issue, in the autumn of 1964, and Ivor Robinson had come to visit, who is an Englishman who'd gone to live in the US, and if you'd met him you would know ... he's someone who is extremely verbal, and was engaging me in voluble conversation.**

John: **So you were involved in a pretty *animated* conversation ... ?**

Roger: **Well, yes one's always in an animated conversation with him ... he has a wonderful way with the English language, they all love him in America because he is somewhat exceptional in this respect [chuckling]. Anyway, we were talking away about something, I really can't remember exactly what, I'm afraid ...**

John: **But it wasn't particularly on this subject ...**

Roger: **No, it wasn't on this subject, because it's not quite his sort of thing ...**

**Step 3 TMU13**

Roger was vaguely thinking about issues of unstoppable gravitational collapse while involved in a lively conversation on a different subject with a highly articulate colleague.

#### Step 4 ITMU13

*What?* Roger was thinking about one subject while engaged in an enlivening conversation on another subject.

*How?* Perhaps Roger's inner self or creative aspect of his personality, "anima"<sup>41</sup>, was stimulated, inspired or enlivened by this "animated"<sup>42</sup> conversation. This seems to be so, despite the fact that the subject of the conversation was not on the same topic on which he was ruminating, namely how one characterises an unstoppable gravitational collapse in a qualitative way.

#### Step 2 MU14

Roger: **Anyway, it was quite near to where my office was, I seem to remember, Birkbeck College in London where I was at the time, and I remember we had to cross this side-street. It wasn't a main road but one had to look out for traffic on the way across, and so the conversation stopped for that bit, and then when we got to the other side it started up again.**

John: **Were you aware as you were crossing the road that something was happening?**

Roger: **Well, evidently during those few moments, an idea occurred to me so at the time I was, you see, but the point was that I had to reconstruct this afterwards, because the conversation as we got to the other side blotted out whatever had occurred to me on crossing the street, so I just kept on talking to him ...**

#### Step 3 TMU14

While crossing a street and looking out for traffic, the conversation stopped. Evidently, in those few seconds, an idea occurred to Roger, but was lost as the conversation resumed when they got to the other side.

#### Step 4 ITMU14

*What?* Within a few seconds lull in the conversation an idea, or image, evidently fleetingly, occurred to Roger, but was blotted out as the conversation resumed.

*How?* Roger had to reconstruct this understanding of what had occurred afterwards because he had no conscious memory of what had happened, but something had come through fleetingly in the silence, as they crossed the street. Because he could not be simultaneously attentive to

---

<sup>41</sup> "Anima" in Jungian psychology the inner self or the feminine aspect of the male personality, from Latin 'anima' meaning 'breath, soul, spirit' (Encarta World English Dictionary, Bloomsbury 1999)

<sup>42</sup> "Animated" lively or busy from the Latin 'animare' 'to give life to'(Encarta World English Dictionary, Bloomsbury 1999)

everything, some thoughts could not gain salience and they receded from consciousness, disrupted by the conversation resuming as they got to the other side of the street.

### Step 2 MU15

Roger: **And then after some while he went off and I was left with this odd feeling of elation, that I could not account for, that somehow something good had happened, you see [chuckling]. And that's about all.**

John: **Was this a general sort of bodily feeling of elation?**

Roger: **Yes, one can feel depressed about life or cheerful about life ... there wasn't something specific about it. It was just something good, just a feeling good, [chuckles] you see, that's all it was ...**

### Step 3 TMU15

When his colleague left, Roger was aware of an unusual feeling of elation, that he could not make sense of, that somehow something good had happened. There wasn't anything more specific about it.

### Step 4 ITMU15

*What?* Roger was left with an unusual general sense of feeling elated, that he could not account for, as if somehow something good had happened. His happiness appears to be one of the primary or universal emotions<sup>43</sup>.

*How?* If it had not been for this "odd feeling of elation" whatever had occurred to Roger as he crossed the street would probably not have been recovered. It seems that this general sense of feeling good in his body was the only remaining conscious trace, sensory pattern or representation of what had happened, apparently underneath conscious survey.

### Step 2 MU16

Roger: **... He'd gone and I thought "why do I feel like this?" you see, [chuckling], rather than just thinking "this is nice" I began to think – I tend to do this, if I feel one way or another - I like to analyse to try and find out what it is that has made me feel that way. On this particular occasion I was somehow a little bit disturbed – sort of paradoxical to say I was disturbed and elated at the same time – I couldn't account for it, but I was trying to find what the source of this was.**

---

<sup>43</sup> Damasio (2000).

### Step 3 TMU16

When Roger was alone he wondered “why do I feel like this?” As he tried to analyse what had made him feel as he did, he became aware that paradoxically he was a little disturbed and elated at the same time. He couldn’t understand why.

### Step 4 ITMU16

*What?* Roger tried to analyse why he felt as he did and what had made him feel both disturbed and elated at the same time.

*How?* When Roger was alone he became conscious that he not only felt elated, which was his primary feeling, but that somehow he was also a little bit disturbed as a secondary feeling. He thought it was paradoxical to experience both feelings simultaneously and was trying to understand why. If he had experienced a good idea, or image, it would be natural to feel elated and natural also to feel disturbed about not being able to remember it.

### Step 2 MU17

Roger: **So I went through all the things that had happened to me in the day, and I couldn’t think of anything that would have been good enough to produce this elated feeling. After eliminating numerous inadequate possibilities I finally came to this occasion of crossing the street, and as I stayed with that feeling I managed to bring to mind what that was, and it was the thought that had occurred to me while crossing the street about how to characterise this collapse in a general way.**

### Step 3 TMU17

Roger reviewed his day but couldn’t think of anything that might account for this elated feeling until he came to the occasion of crossing the street.

### Step 4 ITMU17

*What?* Roger reviewed all the things that had happened to him during the day, and couldn’t think of anything good enough to produce his elated feeling. After eliminating numerous inadequate possibilities he finally remembered crossing the street and managed to re-member the insight that had occurred while crossing the street.

*How?* When Roger came to the occasion of crossing the street he has a sense that something corresponded with his elated feeling. As he stayed with that feeling, he then re-membered the virtual insight that had fleetingly occurred to him while crossing the street, about how to characterise this collapse in a general way, so re-membering his insight was dependent upon

Roger's curiosity and ability to value and analyse his feelings in seeking to recover his insight and the meaning and significance of his experience.

### Step 2 MU18

Roger: **Now I have to say that some of this is reconstruction and I can't completely clearly remember that this is *exactly* [with emphasis] what it was, judging from what it could have been and the sort of thought I could have had at that time which had momentarily elated me, by providing the solution to the problem that had been buzzing around at the back of my head! Apparently it was the needed criterion that I subsequently called a "trapped surface".**

### Step 3 TMU18

Roger acknowledges that some of this (MU7-9) is reconstruction, and he can't completely remember exactly every step, but it provided the solution to the problem that had been preoccupying him. He subsequently called it a "trapped surface".

### Step 4 ITMU18

*What?* Roger's re-construction of his re-remembered insight provided the solution to the problem of how to characterise an unstoppable gravitational collapse, that had been preoccupying him for some time. He subsequently called it a "trapped surface".

*How?* Roger acknowledges that some of this is reconstruction and he cannot completely remember exactly every step, but clearly his experience of insight was not just an isolated intellectual calculation but reveals an experience of a mind that is profoundly connected to bodily feeling and imaginative capacity. The experience of insight 'stands out' from the 'ground' or horizon of the problem that had been buzzing around in the back of his head. This "buzzing" suggests the sound and pollinating activity of bees that have not yet settled so as to be identified.

### Step 2 MU19

Roger: **As the collapse occurs, you see, the material goes inside what is now called the "Event Horizon" – these terms weren't used at the time – but that is the Schwarzschild Radius, the size at which if something is smaller than that it gets trapped, and that's what happens in the spherically symmetrical case. So I wanted somehow to characterise this region in which things get trapped, but where you don't assume that it's symmetrical. So I conjured up this notion of a "trapped surface". I was thinking in space/time terms so it's**

basically four-dimensional, but let me just describe it in more ordinary terms; if you imagine that surface is an instantaneous flash of light, so you have a spherical region which flashes, instantaneously – now, where does that light go? You see, if it was a sphere in ordinary Euclidean space there will be an in-going flash and there will be an out-going flash. Now the in-going flash will have an area locally which gets smaller and smaller, the surface of the flash will get shrunk down, and the out-going one, the area will get larger and larger. Now, what happens when you are just inside the Schwarzschild Radius is that the in-going flash still shrinks down, imagine the sphere is surrounding whatever matter has gone through, so it's just outside the matter, the in-going flash will still shrink down but the out-going flash also shrinks down, so what you find is that the area gets smaller even though they're trying to go out. You see, basically, the picture is that they're trying to go out but they can't because they're too far in, you see, so this was my characterisation, what I called a “trapped surface”.

### Step 3 TMU19

Roger explains how he wanted to characterise the region in a black hole in which things get trapped, where you don't assume it is symmetrical. He was thinking in space/time four-dimensional terms, but in the simplest terms the picture is that flashes of light are trying to get out, but they cannot because they are too far in. His insight was to characterise this as a “trapped surface”.

### Step 4 ITMU19

*What?* The “trapped surface” insight provided the qualitative characterisation Roger was looking for, in terms of what is happening in a black hole when you don't assume it is symmetrical.

*How?* The “trapped surface” insight is an image of Roger's imagination. He says he “conjured up this notion of a ‘trapped surface’”. It is a very clear but simple image of what he had deduced he was looking for, namely a “qualitative characterisation”, with remarkable revelatory and heuristic power; an inspirational insight.

### Step 2 MU20

Roger: **If you find a surface for which the in-going and out-going flashes of light both have locally decreasing areas, then that is sufficiently strange a situation that it may signal that you get a singularity. This is my reconstruction of it, because I can't say that I can**

**remember exactly what went on, because I was more interested in what I was doing than the psychology of the event. Sometime later in the day, I remember just going to the blackboard, and it didn't take me long to sketch out a proof of the fact that you had to go singular in this way, basically from things that I'd known about before.**

**John: So that proof followed quite easily, did it?**

**Roger: Yes, it didn't take me long to form the outline of a proof of the theorem that I had been looking for, although it was few months before the proof was formulated in a completely rigorous way<sup>44</sup>.**

### **Step 3 TMU20**

Later that same day, as a result of this insight of a “trapped surface”, Roger went to the blackboard and it didn't take him long to sketch out a proof of singularity from things he had known about before the experience of insight.

### **Step 4 ITMU20**

*What?* Roger recognised that a surface for which in-going and out-going flashes of light, strangely both have locally decreasing areas, may indicate that you get a singularity. The same day as Roger had his insight about the “trapped surface” he was able quite easily and quickly to sketch out a proof. It was a few months before the proof was formulated in a completely rigorous way.

*How?* The reconstruction of the insight was partly made possible by Roger's wisdom in recognising that a surface for which in-going and out-going flashes of light both have locally decreasing areas, is a sufficiently strange situation that it may signal that you get a singularity. This indicates a close relationship between Roger's wisdom in terms of his growing understanding of the problem, and the experience of eventual insight. It also illustrates the way in which insight sees the relationship between things, sees potential significance, sees meaning and results in understanding. The proof flowed from things Roger had known about before the insight, but would not have been possible without the insight. Roger was more interested in the result, the solution to the problem, than the psychological process. But clearly rigorous and abstract reasoning in the form of proof flows from the *insight* and the *imaginative feeling* of what happens in a black hole.

---

<sup>44</sup> The rigorous proof was published by Penrose in 1965 as Gravitational collapse and space-time singularities. *Phys. Rev. Lett.*, **14**, 57-9.

### Step 2 MU21

Roger: **It wouldn't have followed if you'd told that to anybody, you see, but I'd been thinking about this type of thing and also thought about it in two other different contexts, so I had a certain amount of expertise internally which I'd developed for other reasons, so that expertise was already there in a sense. So when I say it didn't take me long, it wasn't that I could develop all this technique at that point, to prove the thing; most of that was already there, so although I didn't have the cleanest or neatest argument at that time, I could more or less see how these singularities were in fact inevitable.**

### Step 3 TMU21

Roger had been thinking for a while about this sort of issue, in two other different contexts, so he had developed expertise he was able to draw on and could more or less “see” how these singularities were in fact inevitable.

### Step 4 ITMU21

*What?* Roger acknowledges that he didn't have the cleanest or neatest argument at the time but says he could more or less “see” how these singularities were in fact inevitable.

*How?* What Roger could “more or less see” as inevitable was a result of evaluating the working knowledge of the time, involved a long process of developing conceptual thought and the recognition that he needed a *qualitative* way of characterising the problem. So his mind was being prepared for this intricate process of evolving insight, but it was not until he had the topological image of the “trapped surface” (MU22) that what he could “more or less see” became an eventual “insight”.

### Step 2 MU22

Roger: **You see, it's not in the same place as the “trapped surface” is here, so to say, and the singularity is in the middle somewhere, so you had to produce some type of what's called a topological argument which is more like an existence theory, so something must go wrong somewhere, you don't know where it is, so I wouldn't be able to point to where the singular states were, but it has to be somewhere.**

### Step 3 TMU22

Roger did not know where the singularity was so he had to produce a topological argument.

#### Step 4 ITMU22

*What?* The singularity was not in the same place as the “trapped surface” but it had to be somewhere.

*How?* Roger did not know where the singularity was, so he had to produce a topological argument which is more like an existence theory that shows it has to be somewhere.

#### Step 2 MU23

Roger: **So there are other aspects of originality, if you like, in this discussion, which was not just a “trapped surface”, but the “trapped surface” was the *key* [emphasised] idea. People still use these things, they talk about “trapped surfaces”, when they want to know if a black hole is likely to come about, and so on.**

#### Step 3 TMU23

There are other aspects of originality, but the “trapped surface” was the *key* idea.

#### Step 4 ITMU23

*What?* The insight of the “trapped surface” was the *key* idea.

*How?* As the “key” idea, the “trapped surface” insight unlocked and enabled other aspects of originality and expertise that Roger had developed to emerge.

#### Step 2 MU24

Roger: **There is a fair amount more to the story, but that was the thing that started me off. I should say that this whole line or way of thinking of this kind of problem was not the way other people were thinking about it. You see, the sort of thing that people would have done to study this gravitational collapse problem would have been maybe to impose a lesser symmetry, suppose it’s axial symmetric and spherically symmetric, and then put in some massive equations and try to put it on the computer and work out what was going to happen, and so on. And that was beyond what they could have done at that time on computers anyway – I mean, nowadays they can do these things ...**

John: **So the “trapped surface” was the new idea ...**

Roger: **It was the new idea that I needed, if you like, at that point. I sometimes wonder what would have happened if some unimportant *other* elating experience had happened to me during that day. Perhaps I should never have recalled the “trapped surface” idea at all!**

John: **And it sounds as if it was an elegant idea, in that it really produced something very significant.**

Roger: **Yes, yes, I think so – there were other things one could have thought of ... but it was really, I suppose the right thing to think of at that stage. Yes** [laughing happily].

### **Step 3** TMU24

This whole way of thinking was different from the way other people were attempting to study the problem of gravitational collapse, through feeding massive equations into computers (an algebraic approach). So the “trapped surface” was a new, elegant and pictorial insight (a geometric approach) which was the right thing for Roger to think of at that time and at that stage of understanding.

### **Step 4** ITMU24

*What?* Other people were attempting to solve the problem of gravitational collapse algebraically. This is the ‘ground’ upon which Roger’s completely different way of geometric thinking ‘stands out’, existentially, as ‘figure’.

*How?* There is an intriguing *outward* representation of what is happening *inwardly* for Roger. Something occurred to him as he crossed the street. As he cut across the flow of traffic that something also cut across the flow, or line, of other people’s way of thinking about the problem at that time. Roger muses that if some unimportant *other* elating experience had happened to him during that day he might never have recalled the “trapped surface” insight at all. He concludes that it was the appropriate and indispensable insight at that particular stage of his thinking.

### **Step 2** MU25

Roger: **Your use of the word “elegant” reminds me that in inspiration and insight *aesthetic* [emphasised] criteria are enormously valuable in forming our judgments. In the arts one might say that aesthetic criteria are paramount, whereas it could be argued that in mathematics and the sciences, such criteria are merely incidental, the criterion of *truth* [emphasised] being paramount. However, it seems to be impossible to separate one from the other in insight. My impression is that the strong conviction of the validity of a flash of inspiration or insight, is very closely bound up with its aesthetic qualities. A beautiful idea has a much greater chance of being a correct idea than an ugly one. At least that has been my experience, both in relation to the conviction that would be felt with ideas that might**

possibly qualify as “inspirational” and with the more “routine” guesses that would have to be made as one feels one’s way towards some hoped-for goal.

**Step 3** TMU25

Roger’s experience is that *aesthetic* criteria are very valuable in forming judgments about the *truth* and *validity* of an insight, not just in the arts but also in maths and science.

**Step 4** ITMU25

*What?* A “beautiful” idea in the context on “inspirational insight” might be sensed as attractive or elegant, fascinating or economic in explication. It would be likely to be appreciated as having qualities of clarity, simplicity or heuristic power. In the context of “routine guesses” the idea might well just be felt to be new, challenging, or as throwing fresh light on something, linking well with something else, or opening up a new approach.

*How?* In Roger’s experience a strong conviction of the validity of a flash of inspiration or insight is very closely bound up with the sort of aesthetic qualities outlined above, all of which are sensed and appreciated or experienced as a *feeling perception*<sup>45</sup> which is key for insight. Something “beautiful” produces a good feeling of pleasure or delight, even sometimes ecstasy. Something “ugly” produces a sense that it is unsatisfactory, awkward, or having no heuristic power, or even a feeling of aversion.

**Step 2** MU26

**Roger: Rigorous argument is usually the *last* [emphasised] step! My guess is that even with the sudden flash of insight, apparently produced ready-made by the unconscious mind, it is *consciousness* that is the arbiter, and the idea would be quickly rejected and forgotten if it did not “ring true”.**

**Step 3** TMU26

Roger considers rigorous argument to be the last step in the process of achieving one’s goal.

Before that, even a powerful insight produced by the unconscious mind would be rejected if it did not “ring true” to the conscious mind.

**Step 4** ITMU26

*What?* Roger considers consciousness to be the arbiter of the value of an insight.

---

<sup>45</sup> Aesthetics is derived from the Greek *aesthesthai*, ‘to perceive’. It is also the source of the English ‘anaesthetic’ which literally means ‘without feeling’ (see also footnote 39).

*How?* Roger's sense is even a sudden flash of insight produced by the unconscious mind would be rejected if it did not "ring true" to the conscious mind. Something that "rings true" is essentially a feeling, a sense, which permeates the thought process.

### Step 2 MU27

Roger: **Curiously, I *did* [emphasised] actually forget my trapped surface idea, but that is not at the level that I mean. The idea broke through into consciousness for long enough for it to leave a lingering impression in terms of a feeling of elation which I was able to recover. I am supposing that if it had not had some aesthetic quality to it, it would not have reached any appreciable permanent level of consciousness at all.**

### Step 3 TMU27

Roger says he forgot his insight but was able to recover it later.

### Step 4 ITMU27

*What?* Roger understands the recovery of his insight that he had forgotten, in terms of the image of the "trapped surface" having become conscious for long enough for it to leave a lingering impression precisely because of its aesthetic quality.

*How?* Roger considers the recovery of his insight was possible because its aesthetic quality left a lingering impression at some level of consciousness, in terms of a feeling of elation with which he was able to re-connect later.

### Step 2 MU28

John: **Do you usually, like Albert Einstein, think in terms of images?**

Roger: **Yes, almost all my *mathematical* [emphasised] thinking is done visually, and in terms of non-verbal concepts. The difficulties that thinkers like Einstein, Galton and Hadamard have had with translating their thoughts into words is something I frequently experience. I've written about this in *The Emperor's New Mind*<sup>46</sup>. Often there are simply not the words available to express the concepts that are required. The main polarity in mathematical thinking seems to be analytical/geometrical. I am very much on the geometrical end of things, but the spectrum amongst mathematicians is a very broad one. Whereas analytical thinking seems to be mainly the province of the left side of the brain,**

---

<sup>46</sup> Penrose, R. (1999). *The Emperor's New Mind: Concerning Computers, Minds and Laws of Physics*. Oxford: Oxford University Press, pp. 548-550.

**geometrical thinking is often argued to be on the right side. So it's a very reasonable guess that a good deal of conscious activity actually does take place on the right!**

**Step 3 TMU28**

Almost all of Roger's mathematical thinking is done visually, and in terms of non-verbal concepts, because often words cannot express the required concepts.

**Step 4 ITMU28**

*What?* The main polarity in mathematical thinking is analytical/geometrical or left/right brain activity.

*How?* Roger is very much on the geometrical and right-brain activity end of the spectrum. His image of the "trapped surface" illustrates this.

**Step 2 MU29**

**John: Yes, and you are implying that that kind of geometrical thinking and the use of images to express concepts was important ... perhaps even crucial ... in your insight of the "trapped surface" as the key to the problems you were exploring?**

**Roger: Yes, this idea of the trapped surface also had to be within the context of this particular way of thinking about the problem, which was already something a bit unusual, and it's partly because more of the people who were working on these astrophysical problems didn't even know the kind of topological arguments that I had some familiarity with, partly because I had the pure mathematical background, partly I just like to think geometrically; this is just the way I tend to think, and most people didn't. You see, most people would work out the equations and try and solve them, *explicitly* [with emphasis], somehow, and that's just not the way to do this problem.**

**Step 3 TMU29**

These astrophysical problems required a topological and geometrical approach rather than a purely analytical algebraic one.

**Step 4 ITMU29**

*What?* Roger's crucial insight of the "trapped surface" was within the context of a different way of thinking of these astrophysical problems from the way most people were thinking.

*How?* Roger was familiar with topological arguments both because of his pure mathematical background and because he likes and tends to think geometrically. Whereas most people would approach the problem algebraically by working out the equations and trying to solve them

*explicitly*, which Roger says is just not the way to solve this particular problem. So Roger's natural geometric way of thinking proved an invaluable asset at this point, enabling his insight of the "trapped surface".

### **Step 2** MU30

**Roger: Because it's an existence theory, you have to show ... a sort of an example I can give you, although it's not exactly what one uses here, is the "hairy ball" theorem. If you take a sphere and you imagine it growing hair, and if you imagine combing the hair on that sphere so that it lays down flat everywhere, so that it doesn't have a singularity - a crown - there's no way of doing it, you see. This is the theorem, that if you try to comb the hair on this hairy ball there's got to be some point - a crown - so there has to be at least one such point on the sphere, essentially there are two, but they may go together, and this is a good example of a topological existence theorem. You know that somewhere something goes wrong, but you've no idea where it is. So this problem with the gravitational collapse was similar; what you could show is that if there's a trapped surface then somewhere there's got to be this singularity. You don't know where it is, but it's got to be there somewhere. There are some other assumptions which go into this, about energy being positive and so on, which has to do with focusing of light rays, but the key thing was that you have a trapped surface, and without something like that you can't prove anything.**

**John: That's very helpful, thank you.**

### **Step 3** TMU30

As an example of this topological existence way of thinking, Roger explains the "hairy ball" theorem. In a similar way, if there is a "trapped surface" then somewhere there is going to be a singularity.

### **Step 4** ITMU30

*What?* As an example of a topological existence way of thinking, Roger explains the "Hairy Ball" theorem, where there has to be a "crown".

*How?* In a similar way, with gravitational collapse, if there is a "trapped surface", then somewhere, without knowing where, there has to be a singularity. So Roger uses a comparatively simple image which both illustrates an extremely complex problem, and demonstrates the centrality and heuristic power of the key image of a "trapped surface" in solving the problem.

### Step 2 MU31

Roger: **But it's not unusual for me to have some thought buzzing away in the back of my head, and I can be talking to somebody about something else, and it can still be buzzing, you see. So it's there, but it's more a kind of slight distraction than anything serious going on. So it probably needed the period of silence, you see, for me to be able to relate to this - who knows.**

John: **You're referring to the silence as you crossed the road?**

Roger: **Yes. If I was talking, it would be difficult for this kind of thing to make itself present. It's a bit hard to go much further in this instance, exactly what thought processes were going on, what else ... it might have been something that reminded me of something, or was it just that the silence then allowed this thing was buzzing away then to come back. I think it was more like that really – that it was buzzing away and maybe somehow fitting itself together into this picture of a trapped surface.**

### Step 3 TMU31

It is not unusual for Roger to be cogitating in a slightly distracted way even when conversing about something else. The interruption in the flow of conversation with a moment of silence probably enables the thought to become conscious; in this case, as a picture of a “trapped surface”.

### Step 4 ITMU31

*What?* It is not unusual for Roger to be cogitating in a slightly distracted way (even when conversing about something else) and this seems to be a precursor to his insight.

*How?* Roger often has some thought buzzing away in the back of his head. Silence and the ‘potential space’ it opens up probably enables the buzzing thought to become more conscious. Roger also feels that the buzzing thought, in becoming more conscious, may somehow have fitted itself together with other thinking into the picture of a “trapped surface”.

### Step 2 MU32

John: **But it sounds as if you experience something like this from time to time, because you talk about getting in touch with the feeling, being quiet and going over the events of the day, and so on?**

Roger: **Yes, tending to be analytical. I suppose it's partly wanting to understand things. I get troubled if I can't fit things together. It's curious – I have this conversation with my wife sometimes – because she often worries about people's reactions, she doesn't know why somebody responds in a certain way, and I think, well, people, what can you expect! [we laugh together]. I'll never understand people, whereas *these* kinds of questions, one does have a hope of understanding.**

John: **Well, that's a very typical difference between husband and wife.**

### **Step 3 TMU32**

Roger tends to be analytical in his thoughts and feelings because he wants to understand things. He gets troubled if he cannot fit things together, whereas his wife worries about people's reactions.

### **Step 4 ITMU32**

*What?* Roger tends to be analytical<sup>47</sup> of his thoughts and feelings because he wants to understand things and gets troubled if he can't fit things together.

*How?* He gets troubled because he has a sense of hope of increasingly understanding the nature of the universe and the way things fit together. Images are particularly valuable for showing the relationship between things.

### **Step 2 MU33**

John: **You've written about this particular experience in *The Emperor's New Mind*?**

Roger: **Yes, it is in there. There's not more than I've said here, rather less, I think.**

John: **And it sounds as if the feeling of elation was absolutely key in leading you to reflect and analyse and so on.**

Roger: **Yes, it certainly is, which is quite interesting, I suppose, because it must have meant that I realised that this was a good idea, somehow, it wasn't just that the idea came, I must have realised that this, in some sense, solved the problem.**

### **Step 3 TMU33**

Roger tends to be analytical of his thoughts and feelings, because he wants to understand things. The feeling of elation in this case was not only indicative of the idea but also that he realised that it was a good idea that solved the problem.

---

<sup>47</sup> Analytical comes from the Greek *analuein* to unloose, dissolve into elements, from *luein* to loosen (Rooney 1999, p. 61).

#### Step 4 ITMU33

*What?* The feeling of elation was absolutely key in prompting Roger to reflect and analyse in order to find the cause of his sense of elation.

*How?* Roger is interested that the feeling of elation in this case was not only indicative of the fact that he has had an idea, but also that he realised that it was a good idea that solved the problem, even before he knew what the idea was. This is an indication of his anticipatory disposition. It also reveals the evolving nature of his insight, from a sense of being “troubled” when he cannot fit things together, sustained by a sense of “hope” that things do fit together, and a sense of curiosity and strong desire to “understand”, to a mental search for an appropriate pictorial idea/image/insight<sup>48</sup> which will integrate or “fit things together”.

#### Step 2 MU34

John: **I am interested in the difference between “invention” and “discovery” in this context of insight. It is referred to by a chap called Paul Davies, in *The Mind of God*<sup>49</sup> who quotes you quite a bit – not directly, as God! [we both explode in laughter]**

Roger: **I certainly hope not [emphatically].**

John: **He talks about the Mandelbrot Set as not being an “invention” of the human mind, more like a sort of “discovery” like coming across Mount Everest.**

Roger: **Yes ... I find it incomprehensible that anyone could suppose that the Mandelbrot Set, this exotic fractal-like<sup>50</sup> structure [there was a rising sense of excitement in his voice at this point] is not as much “out there” as Mount Everest is, subject to exploration, in the way a jungle is explored. In fact, much more comes out of the structure than is put into it in the first place. One may take the view that in such cases the mathematicians have stumbled on “works of God”. I’ve just finished another book, *The Road to Reality*. Do you know about it?**

John: **No, I don’t know it.**

---

<sup>48</sup> The word **idea** comes from the Greek *idein*, meaning to see. The word **image** comes from the Latin *imago* which is the source of our English word imagine. So both words have their roots in “seeing” and “inwardly seeing” in imagination, so are profoundly related to the experience of **insight**.

<sup>49</sup> “The Mind of God: Science and the Search for Ultimate Meaning” P.Davies (Simon & Schuster 1992).

<sup>50</sup> Fractal is a repeating geometrical pattern; an irregular or fragmented geometrical shape that can be repeatedly subdivided into parts, each of which is a smaller copy of the whole (Rooney 1999, p. 738).

Roger: **This is a monster book which is over a 1 000 pages long.** [He pulls out a copy that he is correcting for the printers, and turns to a drawing of the Mandelbrot Set].

John: **Stunning! isn't it?**

Roger: **Yes, it is. Remarkable. And all that's already there, you see, it's a question of blowing up finer and finer regions, and even this doesn't quite capture what continues right on into the middle, and it's an incredible set and a very, very simple definition. All that structure is there** [there was a quieter tone of awe or wonder in his voice at this point].

### Step 3 TMU34

Roger regards mathematical truth, such as the exotic fractal-like structure of the Mandelbrot Set, not as an “invention” of the human mind, but as much *out there* to be “discovered and explored” as Mount Everest is.

### Step 4 ITMU34

*What?* In the context of *mathematical* truth Roger regards insight as “discovery” of reality *out there* as was the case with Benoit Mandelbrot as opposed to the “invention” of a clever mind.

*How?* Roger's experience of insight and discovery in mathematics is of stumbling on the reality of “works of God” of incredible beauty. Roger's insight is infused with feeling tones of excitement, awe and wonder. A discovery in this context is almost synonymous with an insight of what is there. What is remarkable and mysterious is that the human mind is able to get insight into, and comprehend, these secrets of nature as in the Mandelbrot Set.

### Step 2 MU35

John: **Yes, and you're quoted here by Paul Davies [1992:153]: “When one sees in mathematical truth, one's consciousness breaks through into this world of ideas and makes direct contact with it. This is made possible by each one having a direct route to truth, consciousness of each being in a position to perceive mathematical truths directly, through this process of ‘seeing’”.**

Roger: **This is an excerpt from *The Emperor's New Mind*<sup>51</sup>. I also get into a lot of trouble from people who I think somewhat may have misunderstand what I'm saying there, I don't know. Yes, basically it was the sort of experience which I found when I was an**

---

<sup>51</sup> p.428. The title “The Emperor's New Mind” is of course a play on the fairy tale of “The Emperor's New Clothes” and Roger is like the small boy who dares to suggest that the “Emperors” of strong artificial intelligence, who assert that it is only a matter of time before electronic computers will be doing everything a human mind can do, have no clothes.

undergraduate doing mathematics. I was expecting to find a lot of people I could relate to, and they would think the same way as I did, but I found that everybody thought in a different way, really, and I would barely understand what they were saying. I found it very difficult to follow their train of thought, but nevertheless I could “see”, or guess, what they were getting at, and I’d have my own route to that; so somehow there were different ways of mental processes which can guide you towards something, but the thing itself has a reality of its own, which one comes to in one’s own way. Something I was trying to say, a sort of window into the platonic world<sup>52</sup>, which is a way of looking at it. They thought I was saying, ‘well you know we mathematicians have this way of seeing things which you mortals don’t’ [laughing]. I wasn’t trying to say that at all. Some did have that kind of reaction to it, which was a complete misunderstanding.

### Step 3 TMU35

Roger’s own experience is that people do have different mental processes, or routes, which guide them in “seeing” a mathematical truth; but the truth itself has a reality of its own.

### Step 4 ITMU35

*What?* Roger’s experience is that mathematical truth has a pre-existing reality of its own.

*How?* Roger’s experience is that people do have very different mental processes or routes<sup>53</sup>, which guide them in consciously ‘seeing’, having insight, or understanding a mathematical truth. But it make it very difficult for him to follow other people’s train of thought, so Roger had to “see” or guess what they were getting at in his own way. So the consciousness of each person was in a position to perceive mathematical truths directly, but differently, through a conscious process of “seeing”.

### Step 2 MU36

**John: I must say, your experience while crossing the road reminds me of the famous experience of the French mathematician, Henri Poincaré, boarding the bus and reporting “at the moment when I put my foot on the step, the idea came to me”.**

**Roger: Yes, I suppose it does have something in common with that. It may have been similar, because he may have been babbling to his colleagues, as he was stepping onto the**

---

<sup>52</sup> The reference is to the philosophy of Plato, especially the theory that both physical objects and instances of qualities are recognisable because of their common relationship to an abstract form or idea (Rooney 1999, p. 1445).

<sup>53</sup> No implication of superiority or inferiority is implied, although one process or route might be easier or more appropriate than another (e.g. MU28).

**bus, there was a moment of silence and then it came through to him. He does say that he hadn't time to verify the idea as upon taking his seat he went on with a conversation already commenced but he felt a perfect certainty about it. So it is possible that it was something similar. It's true ...**

**Step 3 TMU36**

Roger agrees that his experience of insight while crossing the road has something in common with Henri Poincaré's experience of insight while boarding the bus; for both of them the conversation was interrupted and the insight came through a moment of silence before the conversation was resumed.

**Step 4 ITMU36**

*What?* Roger's experience of insight while crossing a street is similar in some central respects to Poincaré's experience of insight while boarding a bus.

*How?* For both, conversation was interrupted and the insight came rapidly as a flash of insight through a moment of silence before conversation was resumed; (but Poincaré felt a "perfect certainty" about his insight whereas Roger felt a sense of "elation" and only later that day recovered his insight with certainty).

**Step 2 MU37**

**Roger: Because there's another example. I remember being driven by a colleague, this was in the US and it was from San Antonio I think, to Austin, because I had a year there, and my wife was with the other party, chatting away in the other car, and this colleague of mine was a rather silent gentleman, who didn't talk much, and so I could think about things going on in my mind.**

**John: What came to you then?**

**Roger: Well, this had to do with Twister Theory, which was one of the things which I have spent a lot of my life trying to do. It's a way of describing space-time, which is a completely different representation. I had all sorts of reasons for thinking I wanted something like this, which came from physics and mathematics, but I didn't know what it was, it was just some alternative description of space-time. It was this image that I'd had in my mind from a thing that Ivor Robinson had done. He'd found some solution of the Maxwell Equations, an electro-magnetic field which propagates in an interesting way, and the geometric structure of this thing I'd worked out previously, and so I had a picture of that, but the key**

**thing was basically counting how much freedom this picture had. I knew this picture which was something I'd drawn often. So basically while there was this time of silence I counted how much freedom there was – I can't really explain - it has a certain property which is what I was looking for. I was looking for something where you had a space which was divided in two, and the two halves were in some sense mysterious and the bit in the middle was the thing you could get your hands on. And that's just what these configurations had, and I realised this by counting how much freedom there was in the configuration. And then when I got home I got very excited and realised that this was what I wanted, and it turned out to have just the right mathematical property.**

**Step 3** TMU37

Roger's reflection on the similarity with Poincaré's experience of insight coming through in a moment of silence reminds him of another experience of his own. He was travelling by car with a rather silent colleague, so had time to reflect on what was going on in his mind.

**Step 4** ITMU37

*What?* Roger remembers another experience of insight relating to a different and new way of describing and representing space/time.

*How?* Roger had the time and opportunity "to think about things going on in his mind".

Perhaps this refers to what he has previously described as "buzzing away at the back of my head" (MU18). So he is looking inward to his own mind, getting insight into what was buzzing away. He had an image in his mind of a geometric structure which propagates in an interesting way from previous work that he had done. So he knew exactly what he was looking for in the configuration. The key thing was counting how much freedom this image had, and he was able to do this in the silence of a car journey. When he got home he was very excited because it turned out to have just the right mathematical property he was looking for.

**Step 2** MU38

**John:** Was it a similar experience of elation or excitement to the "trapped surface" insight?

**Roger:** Yes, certainly it would have had. If something else had occurred then, and had put it out of my mind. It might have been a bit hard to do that. If it had I certainly would have felt that ... yes ... there's no doubt about that. So *I was very excited* when I got back and I had some time to myself when I could figure out how to describe this thing, and everything sort of developed from there, so that was actually a big point in this whole Twister theory.

**It was the origin of it. I wrote a mathematical article about it, about the ideas. It was for a Birthday Volume in honour of Ivor Robinson, curiously enough ... the same man who was walking with me in London when I had the “trapped surface” idea. So I referred to it as a “Robinson Congruence”, and it was the geometrical way of thinking about the “Twister”.**

**Step 3** TMU38

If something had interrupted this process and put it out of Roger’s mind, he thinks he certainly would have been left with a similar feeling of elation to the forgotten “trapped surface” insight (MU15,27). In fact, he was very excited as he had time to figure it out; it proved to be the origin of his whole geometrical “Twister” theory.

**Step 4** ITMU38

*What?* When Roger got home he was very excited, because his insight turned out to have just the right mathematical property. So his insight was a “discovery” of reality out there, rather than a clever invention (MU34) and it proved to be the origin of his whole geometrical “Twister” theory.

*How?* Roger’s insight again came through an image, but he had to count how much freedom the image had. This is more like the careful exploration of the reality of Everest than something conjured up. The quality of the mathematical property of the image resulted in Roger getting very excited. This ‘excitement’ seems to have had a different quality to it from the ‘elation’ and ‘disturbed’ feeling he experienced before he re-membered the “trapped surface” image.

However, *if* something had put it out of his mind (difficult as that would have been!) he is sure he would have felt as he did before re-membering the “trapped surface” image.

**Step 2** MU39

**John: So this is another example of you naturally thinking in terms of images and models?**

**Roger: Yes, very much so. I think that’s quite distinctive about the way I think, compared with most mathematicians.**

**John: It’s also true of Stephen Hawking, isn’t it?**

**Roger: Yes, he’s pretty visual. Yes, he’s certainly good at that. He’s probably more even-handed in his way of thinking, I suspect. I’m more lop-sided, being more visual; I tend to translate most of my analytic thinking into visual thinking.** [He shows me examples of this in his latest mammoth book, which he’s drawn himself.] **They are algebraic expressions, but somehow you can see what they are all about in these pictures, whereas if you write them in**

ordinary algebra they look like an awful mess. So it brings out the relations between things in a much more manifest way.

John: Yes, indeed. And this way of visualising things has always been part of you?

Roger: Yes, I have always tried to think that way. I think it's one of the main divisions you find in mathematical thinking. I noticed this when I was an undergraduate. The majority of people were not all that visual. A few were, and I was certainly one of the visual ones, and some could cross the board and go either way. But on the whole it's what they found most difficult. The geometry lectures were the ones that most people found difficult. I didn't – I found them easy. It's a curious thing, I noticed that if somebody wanted me to give a talk, say to school children or to people who were not mathematicians, or something, they'd say, 'put in lots of pictures', so yes, that's fine. It strikes me as slightly odd, you see, if you're going to talk to mathematicians, pictures in some respects don't help at all. I think there's a big selection effect; this is just my theory, that the trouble with the pictorial way of thinking is it's very hard to examine, and it's very hard to unravel.

John: So your instinctive way of thinking is visual and then you work back to the analytical?

Roger: It depends, it might be the thing you want to say is geometrical, but then you've got to say it, you can't just draw a lot of pictures. You have to write down the logical reasoning, so the picture by itself is not sufficient, though it may be helpful. It used to be regarded as non-rigorous, but I think that's less true now. These things tend to come and go in waves, but you find that even in some of the most respected journals you'll find a lot of complicated looking pictures to describe phenomena which are hard to describe in any other way.

### Step 3 TMU39

Roger's natural and distinctive way of thinking is in terms of visual images and geometrical models. He translates most of his analytic thinking into visual thinking but acknowledges that the picture by itself is not sufficient; it may be helpful at a particular point because it brings out the relation between things more clearly but he regards it as necessary to write down the logical reasoning.

#### Step 4 ITMU39

*What?* Roger has a quite strong and distinctive ‘right brain’ way of thinking. He tends to ‘see’ things in terms of visual images, pictures and geometrical models, like his ‘trapped surface’.

This image described what could not be expressed algebraically and made it possible to see the relation between things, as the singularity was likely to occur.

*How?* Roger naturally thinks in terms of images and geometric models, so he tends to translate most of his analytic thinking into visual thinking using pictures, so his experiences of insight also come in this distinctive form of visual images. As an undergraduate he was slightly puzzled by the differences in the way people thought. He found geometry lectures easy whereas most people found them difficult. Since then he has grown in confidence in his distinctive way of thinking and recognises its particular strengths. But he also acknowledges the weaknesses. The picture by itself is not sufficient; you also have to do the rigorous analysis of it and write down the logical reasoning involved in a proof. So there is often a two-step process, for Roger, of insight followed by rigorous argument (see also MU26).

#### Step 2 MU40

John: **You’re correcting this or another edition, are you?** [we were looking at his book *The Road to Reality*].

Roger: **It’s another printing; what a horror thinking about another edition, quite terrifying! The trouble is, it’s a very comprehensive book about mathematics and physics and how they inter-relate, or how these things drive each other, in an attempt to find out how the world works at the deepest physical levels; that’s what it is about. But it’s difficult to get it all right.**

John: **And one of the things that Paul Davies argues here, from some of your stuff in fact, is that what is remarkable is that human beings are actually able to carry out this sort of code-breaking operation. That the human mind has the necessary intellectual equipment to unlock the secrets of nature.**

Roger: **Yes. There is something – I like to use the word “understanding”, as encapsulating what you can do with conscious thought and what a computer can’t do, if you like. A computer just doesn’t possess any of this quality ... you can make it pretend to, you can imitate it to some degree, but it certainly doesn’t understand anything it’s doing, and it doesn’t understand because it’s not conscious, and that certainly in normal usage the word**

“understanding” implicitly entails “conscious awareness”. It’s a bit hard to say that you can understand anything without being aware of it, somehow. So I take that as one of the key roles that consciousness plays – somehow it enables us to have this quality, but I’m not saying I know what it is, I don’t know what it is, but it gives us this quality, which a purely computational system doesn’t have. And you certainly see this in *Shadows of the Mind* like in this chess position, which is not mine. Particularly in view of Deep Blue, this chess match they had against Gary Kasparov, which it won. There’s a chess position, there may be several of them, but there’s one particular one, which if you give it to a human being it’s completely obvious what you do, you don’t have to be a good chess player, you just have to know vaguely how to play chess. Whereas if you give it to Deep Blue it makes a completely stupid move. And you can easily understand not only that this move is stupid, but why it makes a stupid move. The thing is that in this position there’s a row of pawns which go across the board, there’s a sort of barrier which goes from one side to the other. And white has several extra pieces, and the black has only got the king, wandering around. And it’s completely obvious, as long as you keep that barrier intact, there’s no way you’re going to lose, you see. Whereas one of the white pieces can be taken by a pawn, and once you do that you open the barrier up and the pieces can flood through and you’ve lost. So it’s just that common-sense reasoning; you can see, that it’s stupid to take this piece. You can give it to any chess computer, I don’t know whether it’s still true, but it certainly was up to and including Deep Blue. So it’s a good indication that they’ve got no understanding of chess. It’s a nice example to show that the way a chess player, not even a good chess player, someone who just vaguely knows the rules, will see and understand that aspect of it. I gave that example in *Shadows of the Mind*. William Hartstone, I think ... that was part of a Turing test. They were trying to devise problems which would distinguish between human and computer, and it was more or less a clean division; they could tell every time [chuckles]. That’s why in *The Emperor’s New Mind* I dared to suggest that the emperors of strong Artificial Intelligence have no clothes.

### Step 3 TMU40

Roger’s latest book *The Road to Reality* is an attempt to find out how the world works at the deepest physical levels. He likes to use the word “understanding” to encapsulate what human awareness and conscious thought can do in contrast to what a computer can do. In his book *The*

*Emperor's New Mind* Roger argued that the “Emperors” of strong Artificial Intelligence have no clothes.

#### **Step 4 ITMU40**

*What?* Roger argues that a computer can make super-fast complicated calculations but cannot have insight, conscious awareness or understanding of what it is doing. He illustrates this with a chess position in which Deep Blue makes a “completely stupid move”.<sup>54</sup> The crucial difference is that any form of logical, analytical thought process makes use of existing concepts, which means that it is by definition, ‘outdated’. For it to be ‘new’ something else is needed.

*How?* This “something else” in Roger’s experience of insight was being able to work with internal images and to perceive the relationship between things rather than just a rational, logical analysis. Roger reflects that they are distinctively human qualities to be curious, to explore the ‘Road to Reality’, to be aware, to be creative, to have insight, to be conscious and to seek to understand. Comprehensive thinking and human understanding include the complementary functioning of both left and right hemispheres of the brain; both analytical and perceptual thinking; both logical, linear thought and creative, playful insight.

#### **Step 2 MU41**

**John: Yes, I appreciate your emphasis on “understanding”, and your distinction between human and strong Artificial Intelligence, as opposed to Minsky’s contention that our minds are “computers made of meat”. Would you like to comment on the significance of that in terms of your experience of insight?**

**Roger: Ah, well yes, you see when a physicist or a mathematician experiences a sudden “Aha” insight, I believe that it is more than just something conjured up by a complicated calculation. It is a mind making contact for a moment with objective truth, “out there” as Mount Everest is. Another more recent example would be my playful mathematical construction of two shapes that tile the plane in the manner of Escher tessellation, but which can tile it only in a non-periodic way. I didn’t really “invent” them ... I “discovered” them without any expectation that they would be useful. To everybody’s astonishment, particularly mine [laughing] it turned out that three-dimensional forms of these tiles may underlie a strange new kind of matter. Studying these “quasi-crystals” is now one of the**

---

<sup>54</sup> Presumably this is because this particular eventuality had been programmed into a computer by a human being and represents an **oversight**, which the computer was unable to ‘see’ and correct.

**most active research areas in crystallography!** [chuckling]. **So playful mathematics and insights can have un-anticipated applications “out there”... I do have to admit to a life-long sense of wonder towards the mystery and beauty of being.**<sup>55</sup>

### **Step 3** TMU41

Roger believes that when a physicist or mathematician experiences an insight it is more than something conjured up by a complicated calculation. “It is a mind making contact for a moment with objective truth.”

### **Step 4** ITMU41

*What?* Roger’s experience as a mathematician, experiencing a sudden “Aha!” insight, is that it is more than just something conjured up by a complicated calculation. It is a mind making contact for a moment with objective truth “out there” as Mount Everest is. So insight is not just a linear analytical calculation, but a holistic, gestalt, perceptual experience. Insight sees not just what is explicit, but what is tacit and implicit; so not just what is ‘there’ in an isolated way, but the connection or relation between things.

*How?* Roger gives another more recent example of a playful<sup>56</sup> mathematical construction of two shapes that tile the plane in the manner of the Escher tessellation, which can tile it only in a non-periodic way. He says he did not “invent” these tiles, he “discovered” them, without any expectation that they would be useful. Astonishingly it turned out that three-dimensional forms of these tiles may underlie a strange new kind of matter. So, relaxed and playful mathematics and a sense of wonder towards the mystery and beauty of being can lead to insight which can have unanticipated applications in external reality.

### **Step 2** MU42

Roger: **But in terms of my insight crossing the road ... it must have been quite quick, because it didn’t take that long to cross the road** [again, chuckling]. **I wasn’t dawdling or in the classical pose of “The Thinker”** [chuckling].

---

<sup>55</sup> As this interview clearly reveals, we must add “infused with humour”, as Martin Gardner expresses it in his Foreward to *The Emperor’s New Mind*.

<sup>56</sup> “Playful” here implies having fun as he plays mathematical games, as opposed to serious, intentional, analytical and focused mathematics. “Play” in Winnicott’s (1974) understanding is revelatory and leads to surprises.

John: **What intrigues me is that I had thought, before being able to talk to you about it, that focussing on the traffic had somehow distracted you from your line of thought, your insight ...**

Roger: [Interrupting] **I don't think so, no.**

John: **It now seems to me to be the other way round. The fact that you were crossing the road stopped the conversation for you to ...**

Roger: [Again interrupting, because I suspect I think and speak too slowly for him, and Roger has got caught up in telling the story.] **Yes [emphatically], yes it was that ... that's right ... It's certainly embarrassing to think that poor old Ivor was somehow stopping me [we both laugh]. I'm sure that's how it was ... there was a moment when other distractions were removed. That's certainly true of the "Twister" thing, being able to have this ... more relaxed time when my mind could run freely ... of course it doesn't always work ... it usually [emphatically] doesn't work! [chuckles].**

### **Step 3** TMU42

Roger is clear that his insight crossing the road must have been quite quick because he wasn't dawdling, and that focussing on the traffic had not distracted him from his insight but had stopped the distracting conversation enabling him to experience a momentary insight.

### **Step 4** ITMU42

*What?* The experience of insight crossing the road must have been rapid and fleeting.

*How?* There was a moment of silence when other distractions, particularly of conversing, were removed. This was also true of his experience of insight of the "Twister" during a long period of silence in a car journey. Relaxed time, when his mind could run freely, is particularly valuable. He can create or make use of the right conditions for insight, but cannot control or command the results.

### **Step 2** MU43

John: **Do you find that when you are relaxed, maybe in a bath or something like that, things come to you?**

Roger: **Can be ... especially when shaving although I have to say what is much commoner are little thoughts ... you can think of big things, which do make a big difference, but much [emphatically] commoner are little bits which add up. I may be trying to think my way through some problem ... I just can't make up my mind whether to go this way or that way**

... and then after thinking about it for a while, maybe going to bed, and the next day one of them has become the more obvious way. I remember talking to a friend of mine who explained something similar. He said it's like being on holiday in a wonderful mountainous area, and you don't know which one is the highest one. And the next day it's completely obvious which one is the highest. Somehow you work it through and something becomes obvious. It's not as though suddenly "*ping*" [with onomatopoeic emphasis] and that one's gone; it's more an acquaintance with the subject and you begin to feel you know which way to go. It's a confidence which builds up, and that can be several steps, and after a while you have worked out your way and you know your route to the thing. Then it becomes quite clear what the right answer is.

### Step 3 TMU43

In Roger's experience much more common than these significant insights which make a big difference are the small shifts which add up or indicate the way forward. He sees it in terms of an understanding of the subject, a confidence which builds up until it becomes clear what the next step is.

### Step 4 ITMU43

*What?* In Roger's experience, much more common than significant "Aha!" insights which make a big difference, are small shifts which add up or indicate the way forward.

*How?* Significant "insights" as well as "little bits that add up" often occur while relaxed, playful, just wondering (as in MU41,42) or doing something which is not too intellectually demanding, like crossing a road, shaving and so forth. These occur in the context of a clear intentionality when he is trying to think his way through a problem. Roger's understanding of the "little bits that add up" is that as his understanding of the subject grows, a confidence builds up and connections are made until it becomes "obvious" what the next step is, so things may become clearer overnight.

### Step 2 MU44

John: **Do you see that as some sort of unconscious mulling that is going on?**

Roger: **It's hard for me to say what's going on!** [laughing]. [Then he mentions some person's name which was not known to me and is not clearly audible on the tape] **certainly made attempts at this. Have you read his writing on this?**

John: **No, I haven't.**

Roger: Ah, he certainly tried to analyse it in terms of unconscious thoughts linking together, and so on. I'm not sure whether I would go along with his descriptions. I think of the unconscious as throwing up ideas which are certainly not random, they are ideas which have a much better chance of being right, but nevertheless the unconscious doesn't have the judgment to know whether it really is any good or not, so that's where the conscious mind has to pick up on it, to see if it fits. And that's it, you see. So that's the picture I have.

John: That certainly fits with my understanding at this stage.

Roger: I see [chuckling disarmingly]. Yes, and somehow these judgments are vital. You have got to be able to sit back and have a sensible view, whereas the unconscious mind can be very weird and wonderful ... I've never had an idea in a dream which made any sense ... in terms of the kind of insights we are talking about. I can dream things, and I can think, that was a wonderful thought, and the next day ... *what!?* [laughing uninhibitedly] ... they never hang together ... maybe other people's do ... maybe in other areas it could do, but in mathematics it's too tight and it's got to make logical sense ... it may be an input for it. Certainly if you want to get yourself out of a rut, and you are thinking in some way ... something else may stimulate you.

John: Perhaps dreams are usually more about what's going on inside me, rather than what's going on in the external world?

Roger: I guess that's probably a good way of thinking about it ... Yes, yes.

John: Roger, thank you very much indeed. I greatly appreciate this opportunity to interview you, and I've got some South African proteas here for you and your wife.

Roger: It's a very great pleasure. Oh, thank you ... what a treat [looking at the proteas] ... I hope it's been useful to you.

### Step 3 TMU44

Roger thinks of the unconscious as throwing up ideas which are not random, since they have a much better chance of being right, but the conscious mind has to discern whether it is helpful or appropriate. He has never had a dream which has made any sense in terms of the kind of logical and mathematical insights under discussion.

### Step 4 ITMU44

*What?* Roger has never had a dream which has led to scientific insight or has made any sense in terms of the tight logical and mathematical insights under discussion.

*How?* Roger thinks of the unconscious as throwing up ideas which are not random, since they have a much better chance of being right, and may help to get one out of a particular rut in thinking, or be an input into the process of insight. So ideas and images may germinate in the embedded process of the unconscious, but the unconscious can't evaluate the concepts it throws up adequately. He is clear that the conscious mind has to discern whether the idea or image is helpful or appropriate. This is his view of the mutual and complementary relationship between conscious and unconscious processes; between reflection and insight.

## **5.8 The Situated Structure of Roger's Experience of Insight**

In explicating the essential situated structure of Roger's experience of insight, the focus is first on the initial stages and precursors of his experience of insight, then on the dynamic core of Roger's experience of sudden insight, and finally on the unfolding nature, results and quality of his insight, including his reflections upon his experience. Together these encompass the distinct moments which depict the psycho-logical process of Roger's experience of insight. These moments could be called substructures, since each is an integral unity besides being a moment of the larger structural process. This constitutes Step 5 in the methodology.

### **5.8.1 The initial stages and precursors of insight.**

- Roger follows the scientific method and builds on the intellectual tradition. He clarifies the central issue as one of gravitational collapse (MU2). He refers to Einstein's general theory of relativity and the Schwarzschild radius, but he, like many people, thought it would never get down to that scale, so did not worry about it particularly (MU3). The discovery of quasars raised new questions. So an "oversight" was challenged by the emergence of new and puzzling data as well as estimates that required new understanding and insight (MU4). Wheeler recognised the importance of this and understood that what had previously been regarded as insignificant, had to be completely re-examined in the light of the new scale that was getting down to the crucial point of collapse, the Schwarzschild limit (MU5).

*Structurally this is insight as disposition; a scientific openness, involving cognitive, affective and behavioural openness in terms of a way-of-being-in-the-world.*

- Roger questions the current scientific models. One, due to Oppenheimer and Snyder, dealt with what happens when an exactly spherical star collapses into a singularity at the centre. There was little understanding of, or insight into, this catastrophic event at the time (it is now known as a black hole). It is precisely this problem that arouses Roger's curiosity and on which he focuses his energy and attention. He does this and perseveres in the face of issues that seem completely overwhelming (MU6). Many cosmologists believed that in a more realistic and practical situation where the body was irregular, and maybe rotating, it would not reach a singular state of collapse, but that the matter would swirl around and maybe come spewing out again. Some Russian work by theoretical physicists seemed to confirm this, but Roger was re-examining this received assumption. Had he accepted the results of these theoretical physicists he would not have come to his insight (MU7). He was thinking about this question for other reasons and in relation to other problems and unanswered questions to do with singularity, so relational perspectives and lateral thinking played a role in his approach (MU8). Instead of accepting the status quo, Roger has an attraction to mystery and a questioning curiosity. In the process he was generating links and refining his understanding of the issues and the questions that would prepare the way for his experience of insight (MU9).

***Structurally this is a precursor to insight as awareness of, and focus upon, problem areas and asking critical questions about unresolved issues, and tensions in a realistic and practical situation instead of accepting commonly received assumptions.***

- As a result of the above, Roger realised that he needed to somehow characterise the fact that the gravitational collapse is unstoppable; that it has reached a point of no return (MU10). He also recognised that he needed some way of characterising this which didn't depend on the symmetry. So the crucial attribute required was that it had to be a *qualitative* characterisation (MU11). So he has now clarified the central question and has an ability to contain, tolerate and work with complex unresolved issues prior to insight.

***Structurally this is a precursor to insight as clarifying the crucial question, as a result of finding the appropriate problem decomposition, and finding a way of containing and working with the raw material of insight.***

### 5.8.2 The dynamic core of Roger's sudden experience of insight.

Roger did forget the actual occurrence, thought-processes and content of his insight initially, so acknowledges in some respects it may not be a good example. However, later he was able to recall the content of his insight, so it is an interesting experience of insight with an unusual structure, and quite a striking example of an insight re-membered, or perhaps re-imagined (MU12).

- Roger was vaguely thinking about these issues of gravitational collapse while involved in a lively and stimulating conversation on a different topic with a highly articulate colleague (MU13). While crossing a street and looking out for traffic the conversation stopped. In those few seconds of silence an idea, or image, evidently fleetingly occurred to Roger, but was blotted out as the conversation resumed. Roger had to re-construct this understanding of what had happened afterwards because he had no conscious memory of what had happened (MU14). When his colleague left, Roger was aware of an unusual general sense of “elation”, that he could not account for, as if something good had happened (MU15).

*Structurally, this is insight as ‘impact’. If it had not been for this “odd feeling of elation”, the insight that had occurred to Roger as he crossed the street would probably not have been recovered.*

- When Roger was alone he became conscious that he not only felt elated, which was his primary feeling, but that somehow he was also a little bit disturbed. He thought it paradoxical to experience both feelings simultaneously and was trying to understand why (MU16). So Roger reviewed all the things that had happened to him during the day and could not think of anything good enough to produce his elated feeling, until he finally remembered crossing the street and had a sense that something corresponded with his elated feeling. As he stayed with that feeling, he re-membered the virtual insight that had fleetingly occurred to him while crossing the street (MU17), providing the solution to the problem that had been “buzzing around at the back of my head”. It was the qualitative characterisation that he crucially needed, which he called a “trapped surface”(MU18). It is a very clear but simple image of what he had deduced he was looking for, with remarkable revelatory and heuristic power; an inspirational insight in terms of what is happening in a black hole when you do not assume it is symmetrical (MU19). Roger

acknowledges that this is a re-construction of his experience (MU18) and this was partly made possible by recognising that a surface for which in-going and out-going flashes of light both have locally decreasing areas, is a sufficiently strange situation that it may signal that you get a singularity (MU20). This indicates a close relationship between Roger's wisdom, in terms of his growing understanding of what is happening in a black hole, and his eventual experience of sudden insight.

***Structurally, this is insight as 'interpreting'. In staying with the feelings, Roger allows the meanings to emerge, connections to be made, and especially the relationships between things to become clear to his visually orientated way of thinking, so that an understanding can develop.***

- Roger had analytically deduced a plan of action enabling him to turn a large novel problem into a smaller tractable one (MU11), but here it becomes evident how he actually acts in the course of things that are unfolding. (Later Roger speaks of the value of aesthetic criteria in this process of interpreting, as well as consciousness as the final arbiter, but this will be examined in more detail in section 5.8.3 where Roger reflects on his experience of insight.)
- Later that same day, as a result of this insight of a "trapped surface", Roger went to the blackboard and it did not take him long to sketch out a proof of the theorem that he had been looking for about singularity. The proof flowed from things he had known about and expertise he had developed before the insight, but would not have been possible without the insight. It was a few months before the proof was formulated in a completely rigorous way (MU20). There were other aspects of originality but the trapped surface was the *key* idea (MU23) which unlocked the whole puzzle.

***Structurally this is insight as key to a self-actualising process. It is insight in action.***

This completes the essential elements of Roger's gestalt experience of sudden insight, which began as *impact* evidenced as an elated feeling, which then needed to be re-membered and *interpreted* before it could become the key to *action*.

### **5.8.3 Roger's own reflections on his experience of insight.**

Roger's reflections will be considered under the following eleven points:

- Roger modestly reflects, “there were other things one could have thought of ... but it was really, I suppose, the right thing to think of at that stage. Yes [laughing happily]” (MU24). Before he even knows that he has had an insight he “was left with this odd feeling of elation, that I could not account for” (MU15). He also says “the idea broke through into consciousness for long enough for it to leave a ‘lingering impression’ in terms of a feeling of elation which I was able to recover” (MU27).

***Structurally this is insight as releasing the tension of enquiry resulting in elation.***

- In addition, Roger reflects that the feeling of elation before the insight became conscious “is quite interesting, I suppose, because it must have meant that I realised that this was a good idea, somehow, it wasn’t just that the idea came, I must have realised that this, in some sense, solved the problem” (MU33). This is confirmed in his conscious experience of insight, which was the origin of his whole Twister theory. “I got very excited and realised that this was what I wanted, and it turned out to have just the right mathematical property” (MU37).

***So structurally the strong affect of elation indicates not only the occurrence of an insight of which he is not yet conscious, but also that at some subliminal level he was aware that the virtual insight solved the problem.***

- Roger reflects that “there are other aspects of originality, if you like, in this discussion, which are not just a trapped surface, but the trapped surface was the *key* [emphasised] idea” (MU23). As the *key* idea, the trapped surface unlocked and enabled other aspects of originality and expertise that Roger had developed to emerge and fit together in terms of understanding if a black hole is likely to come about. “What you could show is that if there’s a trapped surface then somewhere there has got to be this singularity” (MU30).

***Structurally this is insight as key to unlocking a self-actualising process of paradigm-building enabling other knowledge, expertise and understanding to fit together.*** It is like the missing piece of a jigsaw puzzle that enables one to complete the whole. Another way of expressing it is that ***structurally, insight is particular: true but limited.***

- Roger is particularly clear that his “whole line or way of thinking of this kind of problem was not the way other people were thinking about it” (MU24). He explains this as “partly because I had a pure mathematical background, partly I just like to think geometrically ... most people

would work out the equations and try and solve them *explicitly* [with emphasis], somehow, and that's just not the way to do this problem" (MU29).

***Structurally this is insight as transcending the usual or dominant way of seeing things and trying to solve things.***

- Roger reflects, "my impression is that the strong conviction of the validity of a flash of inspiration or insight, is very closely bound up with its aesthetic qualities. A beautiful idea has a much greater chance of being a correct idea than an ugly one. At least that has been my experience" (MU25). He also thinks "it is consciousness that is the arbiter", and even a sudden and powerful flash of insight "would be quickly rejected and forgotten if it did not 'ring true'" (MU26). He likes "to use the word 'understanding' as encapsulating what you can do with conscious thought, and what a computer can't do ... it doesn't understand because it's not conscious" (MU40).

***Structurally this is insight as self-authenticating through its aesthetic qualities, with consciousness, understanding, and perhaps conscience as the final arbiter.***

- In the scientific context, insight as self-authenticating is not sufficient or acceptable. Scientific insight clearly has to be proven and then tested by the scientific community and validated or rejected as erroneous. Roger acknowledges that it was a few months before the proof resulting from his insight was formulated in a completely rigorous way (MU20). He also regards mathematical truth, such as the exotic fractal-like structure of the Mandelbrot Set, not as an "invention" of the human mind, but as "out there" to be "discovered", explored and verified as Mount Everest is (MU34).

***Structurally this is insight as tested in the public realm and historically validated or rejected.***

- Roger's conviction is that mathematical truth has a pre-existing reality of its own, but his experience is that people do have very different mental processes or routes which guide them in consciously 'seeing', having insight, or understanding a mathematical truth directly (MU35). He regards the main polarity in mathematical thinking to be analytical/geometrical (MU28).

***Structurally this is insight as each person is in a position to perceive mathematical truths directly, but does so in many different ways, according to their particular strengths.***

- Roger says that “another more recent example would be my playful mathematical construction of two shapes that tile the plane in the manner of Escher tessellation, but which can tile it only in a non-periodic way. I didn’t really ‘invent’ them ... I ‘discovered’ them” (MU41). ***Structurally this reveals insight as more than something conjured up by a complicated calculation. It is a mind making contact for a moment and discovering ‘objective’ truth; ‘out there’ as Mount Everest is.***

- Roger insists, “I didn’t really ‘invent’ them ... I ‘discovered’ them without any expectation that they would be useful. To everybody’s astonishment, particularly mine [laughing] it turned out that three-dimensional forms of these tiles may underlie a strange new kind of matter ... so playful mathematics and insights can have unanticipated applications” (MU41). This “playfulness”, this “sense of wonder”, complements the powerful, analytical, intellectual and focused attention Roger brings to problems he sets for himself. The complementary and mutually enhancing nature of these different modes of conscious and unconscious thought result in a more comprehensive and holistic approach. But Roger has made it clear that insight has to “ring true” to conscious understanding.

***Structurally this reveals insight as embedded and as germinating in “playful” mathematical games and constructions, nourished by Roger’s sense of “wonder” and “mystery”, and emerging unexpectedly with surprising results and un-anticipated applications.***

- Roger reflects that, in his experience, much more common than significant “Aha!” insights which make a big difference, are the little bits which add up to indicate the way forward (MU43). Significant “insights” as well as “little glimpses” often occur while relaxed and playful (MUs 41,42), or just wondering in silence (MU37). They also occur while doing something which removes distractions, but is not too intellectually demanding, like crossing a road, shaving and so forth (MUs 42,43).

***Structurally, significant ‘insights’ may be different from Roger’s experience of little ‘shifts’ in understanding, but they crucially complement one another and seem to occur under remarkably similar conditions, in his evolving process of understanding. Moreover they are both integral to Roger’s analytic and synthetic abilities when confronting the unknown.***

- Roger’s relationship and interaction with Ivor Robinson is clearly stimulating despite their different areas of interest (MU13). Roger’s mathematical article on his Twister theory, which he called a “Robinson Congruence” in a birthday volume in honour of him (MU38), as well as his delightful reference to him as “poor old Ivor” (MU42), attest to the richness and warmth of the academic scientific community. This is significant because it is a particular example, which reveals Roger’s insights as embedded in a web of relationships, interactions and an intellectual context in which he is steeped.

*Structurally, this reveals Roger not as an isolated, singular individual, from inside whom new ideas and insights miraculously arise, ex nihilo. Roger is continually engaged in a kind of ‘conversation’ with a collection of other scholars and researchers.*

In conclusion, I want to emphasise that in finding “moments” of the structure and identifying registers of human functioning, I am not wanting to suggest that they are separate faculties operating at different times; the process-dynamic-structure is seamless.

## **5.9 The General Structure of the Experience of Insight**

The Essential Situated Structures of **Desmond’s** experience of insight (5.3.2), **Debbie’s** experience (5.4.2), **Roger’s** experience (5.5.2) and **Tony’s** experience of insight (4.6.1), have been described. At this point, those situated structural statements are synthesised into a general structure of the experience of insight which is not dependent on the specific person, content of insight, situation, or context, but holds true for all the research participants. This is, in effect, the same as **Step 7** The Comprehensive Structure, since all of the research participants’ experiences are comprehended in this general structure.

The data in the transcribed interviews reveal common components in each research participant’s experience of insight. This gives a general structure of the experience of insight which is described in the ten constituent components which are enumerated below. These individual constituent components are understood in terms of the grasp of the *whole* experience of insight. Each component is expressed as a statement which seeks to elucidate the necessary and irreducible core of that component, which is reflected in the experience of all four research participants. Taken together, these ten components comprise the general structure of the experience of insight. These are the researcher’s own descriptions based on the findings of this

research, but it is acknowledged that the words ‘impact’ and ‘interpreting’ in two of the findings (Sections 5.6.4 and 5.6.5) have been influenced by Fuller (1990). In addition, the wording in Sections 5.6.9 and 5.6.10 has been influenced by the work of Lonergan (1983).

#### **5.7.1 The Unresolved Issue**

**The experience of insight arises out of a person’s awareness of, and engagement with, a problem, unresolved issue, question or tension.**

#### **5.7.2 The Openness Required**

**The experience of insight concurs with the person’s way-of-being-in-the-world, where there is a sufficient disposition of openness: affective, cognitive and behavioural.**

#### **5.7.3 The Unresolved Issue ‘Confronted’ and ‘Contained’**

**The experience of insight requires that the unresolved issue and the raw material for insight be adequately ‘confronted’ and ‘contained’ by the person, so that the issue involved can be clarified in a sufficiently reflective way.**

#### **5.7.4 The ‘Impact’: a Passive Experience**

**The experience of insight involves ‘impact’ which comes suddenly and Unexpectedly. It is the influence of the life-world on the self: a passive experience.**

#### **5.7.5 The ‘Interpretation’: a Reflexive Experience**

**The experience of insight requires ‘interpretation’ or empathetic understanding of the ‘impact’, which may take time but becomes conscious suddenly. It is the influence of the self on the life-world: a reflexive experience.**

#### **5.7.6 The “Aha!” Experience**

**The experience of the ‘moment of insight’ releases the tension of enquiry in the “Aha!” experience and motivates, enables and empowers action. It is the key to a self-actualising process: an active experience.**

#### **5.7.7 The Changed Perspective**

**The experience of insight involves transcending the usual or dominant way of**

seeing things.

#### **5.7.8 The Self-Authenticating Experience**

**The experience of insight is self-authenticating; the result of insight is tested in the public realm and is historically validated or rejected.**

#### **5.7.9 The New Understanding**

**The experience of insight results in an understanding which possesses a significance greater than its origin and a relevance wider than its original application.**

#### **5.7.10 The Recurring Quality**

**The experience of insight not only occurs but keeps recurring; it is not an end in itself, but rather a fresh beginning; at each recurrence, understanding develops and action is enabled ... until a new problem, unresolved issue, question or tension emerges, requiring fresh insight.**

### **Conclusion**

Having explored these rich, vivid and varied descriptions of the experiences of the research participants' insights, and then applied detailed and systematic analysis in order to discern these ten constituent components of the general structure of insight, it is essential to move to the next step in the process. In the next chapter, which is the discussion of the findings, these findings will be illustrated in the diverse experiences of each of the research participants, then tested and discussed in relation to their significance in terms of the nine different approaches to the experience of insight which formed the framework of the literature review in Chapter 2.

## CHAPTER 6

# THE DISCUSSION OF THE FINDINGS

### 6.0 Introduction

The ten findings of this study, introduced in the previous chapter (Section 5.9), represent the ten constituent components<sup>57</sup> of the general structure of the experience of insight which cohere as a whole. The first three (discussed in Sections 6.1-6.3) progressively describe the initial stages and precursors of insight. The next three (as discussed in Sections 6.4-6.6) represent the dynamic core of the experience of insight and are characterised by a passive, a reflexive and finally an active experience. The final four components (discussed in Sections 6.7-6.10) describe the unfolding nature, results and recurring quality of the experience of insight.

A general structure of this particular, holistic nature of the experience of insight does not appear in the literature. It is regarded as important that the distinctive value of the particular findings, which will be discussed in greater detail in Chapter 7, should be seen and evaluated in relation to this holistic, dynamic general structure.

The framework of this chapter will consist of two essential parts. First, each of the ten constituent components will be illustrated by the experience of all four research participants with particular attention to the varieties and limits of their experiences, encompassed within that particular research finding. The second part draws on the literature review, and includes definitions of insight (Section 2.2), as well as incorporating relevant material developed in the nine approaches to the experience of insight (see Sections 2.3-2.11). This will reveal connections with, and support for, each component of the research findings; also to reveal points at which the research findings question or challenge a particular approach or its metaphysical presuppositions.

---

<sup>57</sup> from the Latin *componere*, literally ‘to put together’.

## 6.1 Finding 1. The Unresolved Issue

**The experience of insight arises out of a person’s awareness of, and engagement with, a problem, unresolved issue, question or tension.**

It is important not to overlook the obvious: if a person is not aware of, or engaged with, a problem, unresolved issue, question or tension at some level, there can be no insight. The nature of the problems requiring insight, the scope of the questions and the severity of the issues for the research participants, all vary.

For **Desmond**, it was the ‘issue’ of the oppression of apartheid. He was “deeply concerned”, but does not claim to have any special understanding or unique insight. In fact living in Soweto he could hardly help “being aware of how people were feeling about ‘the system’” of apartheid (MU3). He refers particularly to the squalor, the deprivation and the daily humiliations (MU4). It raised the question for him of theodicy: “where the heck was God in all of this” (MU5). This involved considerable ‘tension’ for him and called for political and spiritual insight.

For **Debbie**, it was the ‘question’ of how to respond to her husband’s long-term affair. She had thrown him out of the house (MU1). She was deeply hurt, extremely angry with him and, in particular, felt acutely rejected by him (MUs 1, 2, 3). She came into therapy because of this problem, believing that divorce was the only answer (MU1), but unsure about her own real needs and feelings, so the primary requirement was for more self-insight (MU5).

For **Roger**, it was the ‘problem’ of determining whether gravitational collapse would be likely to occur. He was aware of the implications of Einstein’s general theory of relativity (MU3), but it was not until quasars were observed that the seriousness and importance of the Schwarzschild limit was recognised (MU4) and the issue of gravitational collapse became a practical problem (MU5). So the situation called for mathematical and cosmological insight.

For **Tony**, it was the ‘tension’ of living in an unjust society. As an artist, employed by the *Cape Times* newspaper, he faced the challenge and opportunity of producing a cartoon commenting on the news five days a week. He was very aware of the need, and his responsibility to raise consciousness of socio-political realities through his artistic insight.

In the light of these varied experiences of awareness of, and engaging with, a problem, unresolved issue, question or tension, it is relevant to re-examine the nine approaches to insight developed in the literature review. Four aspects are relevant:

(1) Virtually all of the definitions of insight referred to in the literature review (Section 2.2) include the awareness of a ‘problem’. For example, Mayer’s (1995, p. 3) definition is: “the term *insight* has been used to name the process by which a problem-solver suddenly moves from a state of not knowing how to solve a problem to a state of knowing how to solve it”. As noted, significantly and appropriately, he does not claim that insight provides a solution, but the right solution path. This is perfectly illustrated in **Roger’s** ‘key’ to the solution, namely the ‘trapped surface’ (MUs 23, 24) and is true, in different ways, of the experience of all the research participants.

(2) The puzzle problem approach of cognitive psychology to insight, epitomised by the nine-dot problem, essentially has four weaknesses in relation to this proposition that insight arises out of the awareness of a problem. First, it has to be acknowledged that a number of these puzzle problems are relatively trivial in terms of the quality of insight required for solution. In addition, there is an ongoing debate about which puzzle problems require insight (defined in terms of restructuring of the problem), for solution. Second, because these problems are given to research participants under ‘laboratory conditions’, the levels of affective involvement, problem analysis and motivation for solving the problems may be much more superficial than existential or practical problems in real-life situations (Dunbar 2000). This is clear in the experiences of **Desmond, Debbie, Roger** and **Tony**. Third, because of time limitations in such experiments, there is little meaningful opportunity for any form of ‘incubation’ and research subjects are often not able to apply information from structurally analogous situations. Finally, and most importantly, in view of people’s individual differences, skills, abilities and experiences, as, for example, in the four research participants, it seems highly unlikely that there is any such thing as “a universal insight problem”.

(3) The distinction, developed by Getzels (1964) between *presented problem solving* and *discovered problem finding* is important here, with creative breakthroughs and paradigmatic shifts belonging to the latter category and usually taking very much longer for insight, as in Darwin’s experience. It is not an absolute distinction, but **Desmond, Debbie** and **Tony** were essentially presented with problems to solve through insight, whereas **Roger’s** experience was

more of a discovered problem to which he found a solution through insight. The case-study approach of ‘great minds’ experiencing insight also illustrates the importance of awareness of a problem, frequently a ‘discovered’ problem, as being essential for insight.

(4) Both the inter-subjective approach of psychotherapy and the body-mind-spirit continuum approach of spirituality to insight, clearly affirm, in theory and in practice, that insight arises out of an awareness of a problem or unresolved issues. Bion (1970, p. 58) even describes it as a “blindness” that is a prerequisite for seeing. **Debbie’s** experience clearly illustrates this, as does the classic case of Saul/Paul’s conversion on the road to Damascus in which he was literally ‘blinded’ before being ‘enlightened’ (Acts 9). Andrei, who became Metropolitan Anthony of Sourazh, mentioned in Section **2.11.6.1**, also regarded Christianity as a “disgusting, loathsome, horrible thing” (Bloom 2005), before the living Christ appeared to him. The whole Truth and Reconciliation Commission’s process was required because of an awareness of multiple problems and unresolved issues in the transition from apartheid violence to democracy in the New South Africa. In confronting those issues, *ubuntu*, a crucial insight in African spirituality emerged as a critical factor: our human interconnectedness-towards-wholeness.

The significance of this finding may best be encapsulated by the nuances of the word *elementary*; it is both ‘rudimentary’ in the sense of involving only the most simple, undeveloped and obvious fact, and ‘fundamental’ in the sense of being the most basic or elemental component part of the experience of insight. The significance of this finding is supported by all of the approaches to insight but is more specific and inclusive than most of them.

## **6.2 Finding 2. The Openness Required**

**The experience of insight concurs with the person’s way-of-being-in-the-world where there is a sufficient disposition of openness: affective, cognitive and behavioural.**

This finding changes the focus from the problem requiring insight to the person experiencing insight, and in particular the indispensable requirement of openness in the person’s way-of-being-in-the-world. The research subjects reveal in their interviews that their personalities and situations in life are very different. Their contexts, the nature of their work, relationships,

commitments and experiences all vary. Yet, despite this diversity, they all had to come to a disposition of openness in their way-of-being-in-the-world before insight was possible.

**Desmond's** disposition of openness was particularly evident at an affective and cognitive level for those suffering under apartheid. Living in Soweto (MU3) was his deliberate decision, rather than living in the official residence for the Dean in the leafy suburbs of Johannesburg. His vivid descriptive images about the enforcement of Afrikaans as the medium of instruction: "here was the oppressor, not just insisting that you learnt their language but pushing your nose in the dust" (MU6), expresses the depth of his empathy and solidarity with the students, precisely over the issue that was to emerge as the catalyst for their uprising. However, his disposition of openness was less clear, in fact highly conflicted, at a personal level in terms of becoming Bishop of Lesotho. He describes it as "heart-rending" (MU9) as it involved profound inner turmoil which he could hardly put into words (MUs 10, 11, 12). In MU12 there seems to be a transitional quality to his musing, reflected in the change from the personal "I" to the more generalised "you" in the same sentence, which is unusual for him as a person whose first career was a teacher of English. It seems as if he cannot completely own or express his feelings. Yet, in faith, he struggles to maintain a disposition of openness to God, to give himself, his time and his future to God so "that God might take the chance of communicating" (MU13).

**Debbie** was initially "pretty set" on divorce (MU1). Because of her hurt and anger, there was not much openness at any level; she felt she needed to protect herself. She recognised that she regarded her husband as "putting his foot into it by just breathing" (MU3). She needed to develop this 'disposition of openness' at an affective level (MUs 3, 22, 34) which included accepting herself in a new and empathic way (MU5) and at a behavioural level (MUs 14, 30), because she had developed a strategy of protecting herself by "rejecting Mark before he rejects me" (MU30), in order to come to a clearer and authentic cognitive decision about her future, based on true self-insight of her real feelings, needs and desires, rather than simply fighting the 'problem'. Her experience reveals particularly clearly that a 'sufficient', rather than a perfect 'disposition of openness' is required for insight, and she became considerably more open as a result of her insight. So it is suggested that there is a "tipping point" in the process, which for her was reached during the night of listening to music. The evidence is that, as a result of her insight that she wanted to work towards reconciliation with her husband (MU15), she became more aware of the effect and extent of her suspicion, criticism and loss of trust in her husband.

This is in terms of making him into a “bad” person rather than the “nice” person she had known him to be over the years, but who had now disappointed and hurt her (MU16).

For **Roger**, this ‘sufficient disposition of openness’ was evident at an affective, cognitive and behavioural level. At an affective level this was in terms of his sensitivity and ability to analyse his relation as well as being open to his slightly disturbed feeling (MUs 15-16). At a cognitive level, he was able to build on the intellectual tradition of Einstein and Schwarzschild (MU3), as well as recognise an “oversight” with the discovery of quasars (MUs 4, 5), so he was open to new data and issues and able to discern that it was a qualitative characterisation that he required (MU11). At a behavioural level, he was consistently true to the scientific method and sufficiently open to question current scientific models (MU6) and re-examine received assumptions (MU7).

For **Tony**, this ‘openness’ was evident in his scanning of news to gather information and raw material for insight (MU1) and selecting an issue about which he felt passionately (MU2). This bears witness to his ‘disposition of openness’ on a behavioural, cognitive and affective level. The latter is not insignificant for: “Kierkegaard insists **passion** must give *perspective* and *validity to knowledge*” (Alapack 2008 in private communication; emphasis as in original). According to Kierkegaard, it does not depend merely upon *what* one sees, but *how* one sees: “all observation is not just a receiving, a discovering, but also a bringing forth ... how the observer is constituted is decisive .... A person’s inner being, then, determines what he discovers” (Kierkegaard 1990, pp. 59-60).

In the light of these very different experiences of the research participants coming to a ‘sufficient disposition of openness’ for insight, it is appropriate to reflect on the relevance of the approaches to insight developed in the literature review. Seven reflections are worthy of note:

(1) None of the definitions of insight referred to in the literature review in Section 2.2 specifically mention this ‘disposition of openness’. The result of such existential openness is referred to, but not the condition, as in Webster’s New World Dictionary (Guralnik 1984) which defines insight as “seeing and understanding the nature of things clearly especially by intuition”. Haptic vision, as described by Pattison (2007) in Section 2.9.4, creates an ‘openness’, a yielding and ‘reflective kind of knowing’, which can lead to a quality of wonder and compassionate involvement in the subject matter.

(2) The holistic approach of gestalt psychology to insight is clear about the importance of removing “mental blocks” and the danger of “functional fixedness”, when what is required is a novel use of an object (see Section 2.3.1, Figures 4 & 5). However an existential ‘disposition of openness’ goes well beyond these early gestalt objectivist conceptions, by insisting on a network of meaning forming not just within the cortex, but “in the lived dimensionality of the existential space of possibility” (Fuller 1990, p. 164). This ‘disposition of openness’, as the experience of all four research participants so clearly reveals, needs to be involved, alert, responsive; it includes, as Fuller (1990, pp. 2001-2002) expresses it:

the breadth of being already disposed to available meanings, the depth of imagining the possibilities meaning has coming to it, the immediacy of a present releasing of and being touched by meaning, precisely as these temporal dimensions of the self play into one another at the moment.

This is a very accurate summary of **Debbie’s** detailed description of coming to a ‘disposition of openness’ as she listened to, and interacted with, the music on the night her experiences came together as an insight. This is very different from, and goes well beyond, the puzzle-problem approach of cognitive psychology, which emphasises the importance of intellectual ability and flexibility, in problem analysis and mental representation, as essential preparation for insight. As valuable as this cognitive aspect is, it is often emphasised at the expense of motivational, affective and behavioural aspects of ‘openness’ and is almost invariably linked to a natural scientific and quantitative approach, which is inadequate in so many real-life situations as the experiences of the research participants demonstrate.

(3) The creative approach of genius, dreams, design and invention to insight highlights the fact that creative persons are pre-disposed to being independent, unconventional, even bohemian, and are likely to have wide interests, considerable openness to new experiences, flexibility or flow and boldness in risk taking (Simonton 2000). It is not unreasonable to see considerable similarity in practice, between such creative persons and the philosophical description of a ‘disposition of openness’ in the approach of existential-phenomenological psychology. The creative person’s way-of-being-in-the-world, rather than just in the head, is likely to be reflected in his/her creative expressions, products and designs, as is evident in **Tony’s** cartoons.

(4) In the representational approach of models of insight, Finke (1995, p. 275) emphasises the value of “imaginative explorations” and draws attention to the importance of a playful, creative

and generative space; a delightful description of a ‘disposition of openness’. This is supported by, and exemplified in, **Roger’s** playful mathematical construction, unexpectedly leading to a discovery that may underlie a strange new kind of matter (MU41). His experience also reveals the significance of the existential understanding of the ‘disposition of openness’ as not just an inner subjective experience; it is always and already existentially beyond itself in the world. The value of studying creativity and the quality of its ‘openness’ in Gruber’s evolving systems model is firstly, that it emphasises “the many moments of insight in a creative life, rather than supposing the heart of the matter lies in one great creative leap” (Gruber 1995, p. 400); and secondly, that it reveals insights as “part of a coherent life”, such as **Desmond’s**, **Roger’s** and **Tony’s** as expressing “the functioning of the creative system rather than its rupture” (Gruber 1995, p. 400). This is not the same as an existential understanding of the ‘disposition of openness’, affective, cognitive and behavioural, in terms of a person’s way-of-being-in-the-world, but it is as close as it gets from a natural scientific perspective.

(5) The case study approach of great minds experiencing insight, as is illustrated in **Roger’s** experience above, clearly reveals the crucial importance of this ‘disposition of openness’. Perhaps one of the most unusual examples is that of Feynman (Section 2.5.3), who was ‘sufficiently open’ to a casual remark by a disillusioned colleague, about the situation being so confused that “it might even be V and A, rather than S and T, it’s so messed up” (Seifert et al. 1995, p. 94), that he jumped up exclaiming: “Then I understand EVVVVVVERY-THING!” His colleagues thought he was joking; in contrast, he realised that he now had insight into and understanding of a law of nature that nobody else knew.

(6) The inter-subjective approach of psychotherapy to insight deepens, and clarifies in some respects, the understanding of this ‘disposition of openness’. The ability to listen deeply and make sense of the patient’s unconscious communications is fundamental. It involves a willing receptiveness and responsiveness, involving both apprehension and comprehension. In terms of elucidating the ‘disposition of openness’ required for insight, it is apprehension that is important. An example of my failure as a therapist to apprehend **Debbie’s** sense of rejection in therapy because of the position of the chairs, is given as part of my learning curve in Section 6.11.17. Apprehension has been variously described as “evenly suspended attention” (Freud 1912), “bare attention” (Coltart 1992), “generative uncertainty” (Ivey 1997), “free floating” and “poised attention” (Reik 1954), a “state of contemplation” (Jung 1946b), “reverie” and “intuition” (Bion

1962,1970). It is critically important to recognise that in all these formulations the capacity for a ‘disposition of openness’ is enabled and sustained primarily by an emotional sensitivity, rather than a purely intellectual process, because this openness is so easily and rapidly foreclosed or overwhelmed by emotional reactions and responses.

(7) The body-mind-spirit continuum of spirituality to insight both extends this ‘disposition of openness’ to a transcendent level, and grounds it in a meditative and ‘mindful’ discipline, as is evident in **Desmond’s** experience in retreat and **Debbie’s** experience listening to music. De Chardin’s synthesis of the material and physical world with the world of mind and spirit emphasises the significance of the threshold of reflection in which humankind discovers that we are “evolution becoming conscious of itself” in Huxley’s striking phrase (in de Chardin 1959, p. 221). Begbie’s (2001) musical example of playing middle C and the string an octave above starting to vibrate even though it has not been struck, provided it is *open* (as described in Section **2.11.6.3**) vividly illustrates the significance of this existential ‘disposition of openness’. This is also dramatically lived out by Mrs Cynthia Ngewu (Section **2.11.6.4**). She is *open* to meeting with the murderer of her son, *open* to the possibility of forgiveness, *open* to relating it to her spirituality of *ubuntu*, and *open* to putting it into practice despite the fears and risks involved.

So this second finding changes the focus from the problem requiring insight to the person desiring insight and needing a ‘sufficient disposition of openness’. The experiences of all four research participants reveal in a variety of ways the importance of affective, cognitive and behavioural aspects of openness, in terms of a person’s way-of-being-in-the-world, for true life experiences of insight. The constituent component of insight expressed in this finding goes beyond the definitions of insight. While some of the other approaches to insight value openness and haptic vision, particularly the creative and case-study approaches, none express it so clearly or explicitly, with the possible exception of the approach of psychotherapy and spirituality. These at their best elucidate important implications of this ‘disposition of openness’ as involved, alert, responsive and empathically attuned to life-world possibilities of significance and meaning.

The significance of these first two findings may easily be overlooked, as I have to acknowledge occurred initially in my own experience as researcher. This oversight is reflected upon in Chapter 7, Section **18 (1)**, as part of my own learning curve in relation to understanding **Desmond’s** experience of insight.

### 6.3 Finding 3. The Unresolved Issue ‘Confronted’ and ‘Contained’

**The experience of insight requires that the unresolved issues and the raw material for insight be adequately ‘confronted’ and ‘contained’ by the person, so that the issues involved can be clarified in a sufficiently reflective way.**

This finding expresses a progression of the first two findings and includes both the problematic issues requiring insight and the nature of the parameters necessary for the person’s response to result in the experience of insight. So the indispensable requirement of the ‘disposition of openness’ in the person’s way-of-being-in-the-world, needs to include the ability to adequately both ‘confront’ and ‘contain’ the particular problem, question or unresolved issues. Clearly, the research subjects each ‘confront’ and ‘contain’ their unresolved issues and raw material for insight in very different ways.

Living in Soweto, **Desmond** was ‘confronted’ daily by the reality of the oppression of apartheid. What he found difficult was to ‘contain’ these issues, particularly in the light of his own emotional turmoil about having to move to Lesotho. Evidently, he experienced the retreat as profoundly ‘containing’; in the silence he became more ‘reflective, receptive and prayerful’ (MUs 12, 13) and experienced God speaking to him in a way that ‘clarified’ his problem (MU16).

It was very different for **Debbie**. It was extremely difficult for her to ‘confront’ the real issues in herself because she was so caught up in her anger, blaming her husband (MU22) and overwhelmed by her own sense of rejection and shame (MU8). In her community, it is generally accepted that a woman has to do whatever it takes to keep her man. So she needed to be ‘contained’ or, to use her own word, “held” in therapy (MUs 5, 28), by the music and by God (MUs 4, 27, 35), before she could appropriately ‘confront’ the unresolved issues in herself in a sufficiently gentle and ‘reflective way’. Listening to music, which relaxed her (MUs 29, 33, 36), played a crucial role in enabling this.

In contrast, **Roger**, in the scientific field, is able to ‘confront’ problem areas (MU4) and ask critical questions about unresolved issues (MU3), as well as recognise tensions in a realistic and practical situation (MUs 9, 10), instead of just accepting commonly received assumptions (MU7). Working within the framework of the scientific model, facing issues that seemed completely overwhelming (MU6) he was nevertheless also able to ‘contain’ and ‘clarify’ these

complex cosmological issues in a ‘sufficiently reflective way’ to enable him to recognise that he: “needed some way of characterising this which didn’t depend on the symmetry, it had to be a *qualitative* (with emphasis) characterisation” (MU11). It is arguable that it was precisely this that prepared him and ‘opened’ the possibility for him to experience his fleeting insight of the “trapped surface” in a black hole; as well as to re-cognise, or perhaps to re-image or re-member, his insight as he recovered it later in the day (MUs 12, 14-18).

In a completely different field, **Tony**, in the process of constructing Cartoon 5, explored and ‘confronted’ different dimensions and perspectives of the issues around land (MUs 2-6) and juxtaposed that issue with other issues, events and priorities in terms of the Arms Deal (MUs 7-8). The result is that the raw material of his insight is ‘contained’ by this thoughtful process of conceptualising (MUs 15-17). He recognises that: “the process is the thing” (MU18). He also recognises that things often “pop up” when he is most relaxed, ‘contained’ and ‘reflective’: “in a bath ... lying in bed, or musing on things ... I do like to keep a pencil at the bedside just in case” (Appendix A).

In the light of these distinct and diverse experiences of the raw material for insight being adequately ‘confronted’ and ‘contained’ by the four research participants, so that the issue or problem can be ‘clarified in a sufficiently reflective way’, it is pertinent to review the literature on insight. Six perspectives are salient:

(1) None of the definitions of insight mention this requirement in the dynamic structure of the gestalt of insight. However Smith (1995, p. 232) helpfully distinguishes between *insight as an understanding*, which can be acquired in a variety of ways and which may emerge either gradually or suddenly, and the *insight experience* which he defines as “the sudden emergence of an idea into conscious awareness”. So the experience of insight is not just a step forward on the path to a solution; it is unexpected and abrupt and involves re-structuring or seeing the problem differently for a solution (see Section 2.2.3). However, since none of these constituent components are sufficient in themselves for the holistic experience of insight, it is interesting to note that Smith’s (1995, p. 232) definition of *insight as an understanding* is entirely compatible with this particular finding. In which case, it strongly suggests that there is a connection between the two reflected in this finding. A significant consequence of this is the way that it highlights and clarifies the relationship between the small shifts of awareness and the sudden experience of insight; the glimpses and hunches as part of understanding, and the unexpected

clarity and conviction of the holistic experience of insight. The small shifts of awareness are constituted by this third component on its own; the sudden experience of insight flows from this component as part of the whole structure, consisting of the ten constituent components, of the experience of insight. This appears to be true of **Roger's** experience: his 'understanding' was that he needed a *qualitative* characterisation (MU11); his 'insight' of the 'trapped surface' fulfilled that requirement perfectly (MU23). It is also evident in **Debbie's** experience: during the night of listening to music she experienced a number of 'understandings' (MUs 9-11, 14) and 'partial understandings' (MUs 12, 43), which culminated in the unexpected 'insight' that she wanted to risk seeking reconciliation with her husband (MU15). It will be necessary to return to this point later in Section **6.11.8**, on the significance of the quality of understanding in the experience of insight.

(2) The existential approach of phenomenological psychology to insight does not speak specifically about the need to 'confront' and 'contain' as a requirement for insight. But it does speak of insight as 'impact' and "letting life-world differences *be* in letting them touch us" (Fuller 1990, p. 178). This finding clarifies what is required to let them *be*. It is necessary to 'confront' the problems/issues at sufficient depth and to encounter the true significance of their *being*, rather than denying or dismissing them as insignificant. At the same time it is important to be able to 'contain' the 'raw material for insight' and the problematic issues rather than being overwhelmed by them so that the nature of their *being* 'can be clarified in a sufficiently reflective way'. The importance of this finding in clarifying the existential understanding of what it means to let life-world differences *be* as they touch us, is particularly vividly illustrated in **Debbie's** experience. There is considerable evidence that creativity tends to be associated with, or arise out of, a certain amount of psychopathology (e.g. Eysenk 1995, Jamison 1993, Ludwig 1995). Creative potential seems to require challenges or problematic experiences, which may, importantly, develop perseverance and maturity in the face of obstacles (Simonton 1994). There is evidence of personal growth for all the research participants through their struggles for insight, as well as through the results of their insights (see Section **6.11.12**).

(3) Cognitive psychology emphasises the need to 'confront' but is silent on the need to 'contain', probably because it is already so contained and limited to laboratory contexts, as opposed to what may be overwhelming problems in real-life situations. The creative approach clearly requires this finding and may well benefit from a more general application of this finding

in practice, than is reflected in the literature on creativity. The case-study approach of ‘great minds’ experiencing insight illustrates the significance of this finding. At least two years before his famous insight on the step of the bus, Poincaré “suspected that there ought to be certain generalisations of elliptical functions of a single complex variable ... but he did not know exactly what they were or whether these solutions ever existed” (Miller 1992, p. 398). But the evidence is that he was able to both ‘confront’ and ‘contain’ this unresolved issue in ‘a sufficiently reflective way’ so that it could be ‘clarified’ subsequently; in fact it occurred as a sudden unexpected insight on the step of the bus.

(4) The inter-subjective approach of psychotherapy to insight provides clear experiential evidence of the need for issues to be both ‘confronted’ and ‘contained’ appropriately for insight. The concept of the *container/contained*, and the vital emotion-laden relationship that it represents, is the way in which Bion (1962a,1962b) conceives of thinking. ‘Containment’ is necessary for frustration to be translated from the raw, sensory experience of infantile life, into mental content that carries some meaning. Yet it is important to recognise that it is frustration and pain that provide the impetus for thoughts to develop, hence the need for ‘confronting’. Todres (1990), as argued in Section 2.10.4.2, describes the concept of ‘confronting’ for self-insight, in terms of the need to thematise the quality of a problematic and significant self-other relationship, that was previously embedded in an un-clarified emotional existence. He describes the concept of ‘containing’, in terms of recognising a level of personal agency and responsibility in perpetuating the problem and then being able to articulate and actualise a more complex self-image/project. The value of this delineation of self-insight is clearly illustrated in **Debbie’s** experience, although Todres does not use the wording of ‘confronting’ and ‘containing’.

(5) Clearly dreams need to be taken seriously, and ‘confronted’ rather than dismissed, if they are to be explored both in terms of their visual imagery and feeling tone for their significance and meaning. At the same time, there may be nightmarish, frightening or threatening elements in a dream, that need to be ‘contained’ rather than ‘repressed’ so that their significance can be ‘clarified in a sufficiently reflective way’.

(6) The body-mind-spirit continuum approach of spirituality to insight involves the ability to ‘confront’ personal, existential and ultimate questions of meaning, significance, purpose and values; and at the same time to ‘contain’ the lack of definitive certainty: the ambiguities, anxieties and ambivalences that arise in such a quest. The significance of this is particularly

clear in **Debbie's** experience. Otto (1958) famously stressed the uncanniness and ambiguity of numinous experience in the phrase *mysterium tremendum et fascinans*, in which *mysterium* refers to a reality which is 'wholly other'; implicit in *tremendum* are the qualities of 'awfulness', 'overpoweringness' and 'urgency'; and *fascinans* refers to the fascination of "something that allures with a potent charm" (Otto 1958, p. 31). So numinous experience in spirituality needs to be adequately 'confronted' and 'contained' if the experience of insight is to be constructive rather than destructive of the personality (Casement & Tracy 2006). The importance of this is evident in **Desmond's** experience of "pressure" (MU14) which, as a categorical imperative, could evoke problems for a less mature person. It is also clear in **Debbie's** experience, which initially provoked considerable "fear and confusion", as revealed in the subject heading of her e-mail at 4 am (MU7).

So this third finding, specifying the qualitative parameters required for the experience of insight, completes the progressive description of the initial stages and preconditions for insight. It has been discovered to be highly significant, in very different ways, in the experience of all four research participants. Yet it is not explicitly stated in any of the approaches to insight, although it is clearly both implicit and significant in the phenomenological, creative, case-study, psychotherapeutic and spirituality approaches. So it is submitted that this finding serves a valuable purpose in formulating and expressing these necessary qualitative parameters of 'confronting' and 'containing' the raw material for insight unequivocally. The implications of this finding will be discussed further in Chapter 7.4 as part of the distinctive value of the findings of this research.

#### **6.4 Finding 4. The 'Impact': A Passive Experience**

**The experience of insight involves 'impact' which comes suddenly and unexpectedly. It is the influence of the life-world on the self: a passive experience.**

The previous three constituent components describe the pre-conditions necessary for the experience of insight. This and the next two constituent components (Sections 6.5,6.6) focus on the central dynamic core of the actual experience. They are like the three primary colours of the spectrum, red, green and blue, from which all other colours in the experience of insight can be

blended and are derived. The form, nature, strength and quality of the ‘impact’ in this constituent component vary greatly; it is very different for each of the research participants.

For **Desmond** the ‘impact’ came ‘suddenly and unexpectedly’, as a “bolt from the blue” (MU25): “it seemed like a pressure ... it doesn’t seem rational at all” (MUs 14, 15). He experienced this “pressure” as a force that presses steadily, pushes or urges. In response to the question of whether the sense of pressure built up gradually, he responds, “I think that it came almost instantaneously” (MU16). It made a significant ‘impact’ on him.

In contrast to Desmond’s single experience of ‘impact’ as a “pressure”, **Debbie** speaks of the “shocking” nature of her experience of these ‘impacts’ no less than ten times (MUs 3, 15, 32, 35, 36, 40), and of being “struck” six times (MUs 11, 12, 32, 34). She was “struck” and “greatly impacted” by poetic images (MUs 9, 20, 21), a blunt question (MU15), a book title (MUs 10, 32, 33), wedding vows (MUs 12, 43), her therapist’s bare feet (MUs 11, 34), suggested interpretations in therapy and a poem (MU14), but at that point she was not able to “see” or understand their significance (MUs 21, 22), despite these ‘sudden and unexpected’ experiences of the life-world ‘impacting’ on the self.

**Roger**’s experience was almost the polar opposite of Debbie’s repeated and powerful experiences of ‘impact’; he nearly missed the ‘impact’ altogether. It was so brief and subtle, it was subliminal, that he had no conscious memory of what had happened (MU14). He was left with an unusual general sense of “elation” that he could not account for, as if something good had happened (MU15). He also, at the same time, felt a “little bit disturbed”, which he regarded as paradoxical. He “couldn’t account for it” (MU16). Perhaps he was “disturbed” about not being able to remember it; at least it would have acted as a reminder to take his experience of subliminal ‘impact’ seriously, rather than discount what he could not “account for”.

**Tony**, in complete contrast to Roger’s non-verbal, subliminal ‘impact’, was struck by “a rich irony” of the new ANC government having to remove squatters because it was so reminiscent of what used to take place under the old apartheid regime: “So it obviously fixated my attention immediately” (MU2). While he was imagining appropriate visual symbols, images, ideas and metaphors for delivery (MU6) he was “struck” by the idea of “delivery vehicles”; it made an ‘impact’ on him (MU8).

At this point, it is fitting to reflect on this finding derived from the experiences of all four research participants, in the light of the approaches to insight developed in the literature review. Six points are worthy of mention:

(1) Almost all of the definitions of insight, mentioned in the literature review, do include the element of suddenness and unexpectedness (e.g. Coleman 2006, Duncker 1945, Guralnik 1984, Mayer 1995, Seifert et al. 1995, Siegler 2000, Smith 1995, Wertheimer 1959). Yet in every case that suddenness refers to the moment of ‘interpretation’ or realisation of the insight, which is the crucial and distinctive feature of the next component in this structure of the experience of insight. The ‘impact’ here in this research finding is prior to ‘interpretation’, although the time-scale may vary greatly as is the case in the experience of all four research participants.

(2) The recognition of the significance of the experience of ‘impact’ as ‘the influence of the life-world on the self’ is unique to the existential approach of phenomenology. The emphasis on the fact that it is a ‘passive experience’ is a finding of this particular research. As Heidegger (1971a, p. 7) put it: “something befalls us, strikes us, comes over us, overwhelms and transforms us”. Merleau-Ponty (1973b, p. 137) expresses it even more precisely: “My perception is the impact of the world upon me”. This ‘impact’ is a felt sense of things. The ‘impact’ depends upon the degree of incongruity between the emerging significance of the life-world event and the person’s assumptions. This is illustrated particularly clearly in **Debbie’s** experience. She describes herself as “struck” on no less than six different occasions (Section 5.6.1). She experienced insight as ‘impact’ but was not able to see or understand their significance (MUs 22, 23). This is an example of the way in which faithful description can *open* up the experience further, rather than attempting to *close* it with an explanatory theory. Csikszentmihalyi and Sawyer (1995, p. 344) refer to this ‘impact’ in the subconscious network, as being “like the final shout that releases the avalanche” and link it to a detailed incubation model of creative insight involving three levels: conscious attention serial process, semiconscious filters and subconscious processing entities, with all three levels functioning synchronously (Csikszentmihalyi and Sawyer 1995, pp. 341-342). There is undeniable value in such a formulation, but the danger is that the more accurately and comprehensively a given mechanism is developed, the more the distinctly human experience of insight is lost in abstractions, unless very great care is taken. Schooler’s (1995) metaphor of an explosion for insight and the value of distinguishing between

the event, the explanations and the experiences of that explosion is valuable, and certainly includes considerable ‘impact’.

(3) The creative approach of genius, dreams, design and invention to the experience of insight clearly supports this finding of ‘impact’ in insight. While many dreams require careful exploration of a variety of possible meanings, the sudden and unexpected ‘impact’ experience of Feldman’s insight into his dream in the shower (Section 2.6.4) is not uncommon. Smith, Ward and Finke (1995) and Ward, Smith and Vaid (1997) have provided evidence of the value of visual imagery, geometrical and imaginative thinking in the creative approach which is highly susceptible to sudden and unexpected insight. This is strikingly evident in **Roger’s** experience of his “trapped surface” (MUs 17-19).

(4) The case-study approach of great minds experiencing insight provides the most compelling evidence of sudden and unexpected ‘impact’. The simple fact that the precise moment, place or activity, such as stepping onto the bus (Poincaré in Section 2.8.1), the very spot on the road (Darwin in Section 2.8.2), and crossing the street **Roger** (MU14), at which the insight occurred is specifically mentioned, in the first-person description of experiences of insight, bears witness to such an ‘impact’. Another example is **Debbie** excitedly locating the exact position of a book on my bookshelves eighteen months after being struck by the title *All Truth is God’s Truth* (MU32). The significance of the experience of such a ‘moment of impact’ is highlighted in the technique used in films of dramatically slowing down the ‘moment’. This technique seems to be based on, even if in slightly exaggerated form, the human experience of such ‘moments’.

**Roger’s** experience of a ‘recovered insight’ as a result of tracing the first sense of excitement to the precise moment of crossing the road, and then staying with that feeling before experiencing the image of the “trapped surface”, is strong evidence of the bodily ‘impact’ and influence of the life-world on the self. It also reveals both the continuity and discontinuity between ‘impact’ and ‘interpreting’ which will be explored further in the next section.

(5) Impact is clearly a crucial factor in the inter-subjective approach of psychotherapeutic practice, where the analyst/therapist is trained to be particularly alert to the slightest flicker of change in the patient and may enquire about its significance. It is also highly salient in the approach of spirituality with the cardinal value of reverence for the Other, and awareness of the influence of the life-world on the self, grounded in such disciplines as prayer, mindfulness, meditation and breathing as an aid to living in the present moment. Yet the significance of

‘impact’ prior to ‘interpretation’ is not mentioned in most approaches to the experience of insight. The suddenness and unexpectedness mentioned in the definitions, characterising the gestalt restructuring of the problem, the approach of cognitive psychology and the representational approach of models, all refer to what happens in the “Aha!” moment of insight. No mention is made of a person being ‘struck’ by anything prior to that moment, despite the fact that it is such an obvious characteristic in the experience of all four research participants. This strange oversight is perhaps a result of focusing too exclusively on the mechanism of insight, rather than the person, together with the details of the structure of the experience and the significance of the meaning of the insight.

(6) A final comment about characterising this constituent component as ‘a passive experience’ is appropriate, because it could be argued that this is a ‘receptive’ experience. Against that it seems clear that such receptivity as is required is in fact described by the second finding: the pre-condition of a ‘disposition of openness’. The evidence seems to be that, despite that openness in **Desmond, Roger** and **Tony**, the ‘impact’ came suddenly, unexpectedly and was experienced passively without any particular receptive activity. **Desmond** describes it as a “bolt from the blue” (MU25). **Debbie** noticed these ‘impacts’ but did not understand them; the evidence seems to be that repeated ‘impacts’ as a passive experience were required before she could effectively ‘interpret’ them. **Roger** was hardly aware of the ‘impact’ and forgot it (MU27), while **Tony** is passively “fixated” by the ‘impact’ (MU2).

So the evidence is unambiguous: ‘impact’ is a passive experience in the sense of the person ‘not actively taking part’ since the word comes ultimately from the Latin *pati*, ‘to suffer’. However, it does need to be conceded that this nuance of the word ‘passive’ is different from the more traditional sense of ‘expressing action done to the subject’ or of ‘being influenced by something external’. It’s significant difference is seen in the next constituent component of the core dynamic of the experience of insight, which is a reflexive experience. The significance of the ‘moment of impact’ is discussed further in Chapter 7.5 as one of the distinctive values of the findings of this research.

## 6.5 Finding 5. The ‘Interpretation’: A Reflexive Experience

**The experience of insight requires ‘interpretation’ or empathetic understanding of the ‘impact’, which may take time but becomes conscious suddenly. It is the influence of the self on the life-world: a reflexive experience.**

This fifth finding embraces a significant variety of ‘interpretations’ of the ‘impact(s)’ by the research participants; not just differences of content but differences of kind or character, considerable differences in terms of time required, as well as different modes of understanding. Yet in each case this variety clearly illustrates ‘the influence of the self on the life-world’ and the fact that this is ‘a reflexive experience’.

**Desmond** reflects: “It did seem that God was saying, or this particular pressure said, ‘write’” (MU16). The mood of this component is essentially a reflexive one, expressed particularly in the word “seem” (see also MUs 14, 19, 22, 26). This occurred while he was prayerful (MU25). It points to an intuitive and imaginative process of allowing emerging meanings to *be*. Yet it not only occurred extremely rapidly, it also had the character of a categorical imperative: “I think that it came almost instantaneously ... its effect on me was that ‘you have to do this’” (MU16). His interpretation was that this particular letter must be written by himself, to this particular politician, at this particular time. This could be described as an ‘empathic understanding’. It was certainly the influence of the self/Self on the life-world: a reflexive experience.

**Debbie’s** experience was very different. She had been “shocked” and “struck” (MUs 11, 12, 32, 34) by things ‘impacting’ her over a number of months, but they came to be interpreted over a period of some five to six hours one night, as she was listening to music. She was sustained and relaxed by it as well as interacting with it (MU33). Under the calming influence of the music, she was able to let what “impacted” her *be*; instead of trying to fight it, control it, or repress it. At the same time, she was able to entertain the emerging meanings that she was “interpreting” and let them *be*; instead of trying to control them (MUs 23, 33, 34). She enumerated and described her cumulative ‘interpretation’ that night in an e-mail at 4.19 a.m. It “*was* [strongly emphasised] a big time turning point” (MU37), but she regarded it as occurring “slowly, just gradually” during that night (MU33). So this may well illustrate a combination of a process of understanding as defined in component (see Section 6.3) as well as insight in terms of the three

constituent components at the dynamic core of the experience of insight (see Sections **6.4,6.5,6.6**), in terms of interpretations or empathic understandings of the ‘impacts’.

**Roger’s** experience of ‘interpretation’ was fundamentally different in kind, not just content, because it was re-membered bodily, and is in some ways the most remarkable finding in this component. He says “as I stayed with that feeling I managed to bring to mind ... the thought that had occurred to me while crossing the street about how to characterise this collapse in a general way” (MU17). His ‘interpretation’ of his recovered insight reveals firstly, the value of his recognition that he required “a *qualitative* [with emphasis] characterisation” (MU11) which may have played a part in enabling him to re-member his subliminal experience. Secondly, it shows the power of the emergent quality of the gestalt of insight. Thirdly, it reveals that ‘interpretation’ is insight into what is required, what is of value, and wholes of meaning. Fourthly, his ‘interpretation’ shows the value of some aesthetic quality for the insight to “ring true” in consciousness (MU27). Finally, it gives significance to the theatre of the body; the importance of the feeling of what happens, even in what could be argued as the most sophisticated ‘intellectual’ experience of insight of the four participants. The fragile, vulnerable and precarious nature of the process of re-membering his feelings is revealed by his wondering “what would have happened if some unimportant *other* elating experience had happened to me during that day” (MU23); yet this was the “key” to a firmly established, cogent and rigorous scientific proof. It will be valuable later later to draw on neurobiological research underpinning these findings (see Section **7.17**).

**Tony’s** experience of ‘interpretation’ was a much more ordinary and familiar one. After the ‘impact’ of having his attention alerted by an irony (MU2) and being “struck” by an appropriate vehicle for the Arms deal, he had a flood of ‘interpretations’ in the form of associations, reflections, meanings and allusions, that came to mind (MU8). Essentially his creative process of ‘interpretation’ was a reflexive experience. ‘Interpretation’ for him was insight into what was required, what was of value, and wholes of meaning for his “Cartoon **5**”.

It is appropriate at this point to reflect on these very different experiences of the research participants, illustrating this particular constituent component of insight in the light of the nine approaches to insight developed in the literature review. Six points are particularly worth commenting on:

(1) This finding is an expression of the existential approach exemplified by Fuller (1990) but, in the light of **Debbie's** experience, Fuller's (1990, p. 172) assertion that 'impact' and 'interpreting' are "not two separate behaviours but rather two ways of considering the same psychological reality", has to be questioned. The evidence of this research points to the conclusion that they are certainly two inter-related constituent components of the core experience of insight, but they may become conscious at very different times. Perhaps the word "continuously" would express Fuller's intention more precisely than the word "simultaneously". **Roger's** experience, although different (Section 5.8.2), also raises the same question.

(2) **Roger's** detailed description of his personal experience is much richer and more revealing than any of the work of the cognitive psychologists who provide evidence that "high feelings of warmth predict failure to solve un-cued insight problems, but do not predict failure on un-cued non-insight problems" (Davidson 1995, p. 145) indicating that 'interpretation' in insight cannot be predicted before it occurs. Sternberg and Lubart (1995, pp. 556-557) acknowledge that "exclusive reliance on cognitive models may rule out one of the most important factors for creative insight, which is not an ability so much as an *attitude towards life*" (italics added). The significance of this is clearly evidenced in the experience of all four research participants.

**Desmond** is totally committed to justice and peace in ending apartheid (MUs 3-6, 11). **Debbie** is determined to find a solution to her problem with which she can live. **Roger** confesses to a "life-long sense of wonder towards the mystery and beauty of being" (MU14). **Tony** acknowledges that a cartoonist's "*attitude to things is pretty important*" (MU18). He felt he was at his best in the apartheid era: "because I felt that I was very much more passionate about issues at stake then" (Appendix A). It is this "*attitude towards life*" that justifies the word 'empathic' in this finding.

(3) Insight involving 'interpretation' is a significant and integral aspect of the creative approach in which 'the influence of the self on the life-world' is particularly clear. In the 'interpretation' of dreams it is not just a question of symbolic interpretation, but 'empathic understanding' of the feeling tone on the 'impact' of the dream. In design and invention, whether generated by an idea, or visualised in the mind in three dimensions, or expressed on paper in two dimensions, some 'interpretation' and transformation is required if the creative potential is to be realised in another medium in the execution of the insight.

(4) The case-study approach of great minds experiencing insight, particularly as illustrated in the experiences of Poincaré, also strongly supports each phrase of this research finding. On one occasion, which is remarkably similar to **Roger's** experience, Poincaré's "mind was preoccupied with very different matters. One day as I was crossing the street the solution of the difficulty which had brought me to a standstill came to me all at once" (Poincaré 1952, p. 54). His reflections also closely resemble **Roger's** 'key' (MUs 18, 21) to unlocking other calculations. It is submitted that this particular finding captures these experiences more adequately than any other approach.

(5) In the inter-subjective approach of psychotherapy, there is a difference between so-called insight as interpreting psychoanalytic theory and insight as interpreting analytic intuition. This difference has been reflected upon in terms of Hanna's experience in the film of "The English Patient" in Section 2.10.6. In a therapeutic relationship, both complementary and invitational forms are valuable. Interpreting psychoanalytic theory is in essence an 'understanding' as defined by Smith (1995, p. 232) and reflected in Section 6.3 on its own, as opposed to this finding (Section 6.5) as a constituent component of the core experience of true 'insight' or analytic intuition.

(6) Finally, it is submitted that **Desmond's** experience of insight, and, to a lesser extent, **Debbie's** would not be adequately understood without the body-mind-spirit approach of spirituality. It would be only too easy, in terms of the imagery of van Wyk Louw's poem (1962, p. 12) to find circles everywhere believing that the sphere is comprehended (see Section 2.12.9). This is not based solely on whether or not the research participant names God as part of their experience, as is the case with **Desmond** and **Debbie**, because spirituality has not been defined in those terms, but has been construed as a person's sense of meaning, values and life purpose (Daaleman & Van de Creek 2000) or in one word: *ubuntu*. It is also because this finding is expressed in terms of 'interpretation' and 'the influence of the self on the life-world', so it clearly applies to **Roger** with his commitment to *The Road to Reality* (2004) and "life-long sense of wonder towards the mystery and beauty of being" (MU41), and also to **Tony** with his passionate commitment to justice (MUs 2-4) and integrity of his artistic expression (Appendix A).

Perhaps it is true that life is not so much measured by the breaths that one takes, but by the ‘moments’ that take your breath away. The significance of the ‘moment of interpreting’ is discussed further in Chapter 7.6 as one of the distinctive values of the findings of this research.

## 6.6 Finding 6. The “Aha!” Experience

**The experience of the ‘moment of insight’ releases the tension of enquiry in the “Aha!” experience and motivates, enables and empowers action. It is key to a self-actualising process: an active experience.**

This is the third constituent component that completes the dynamic core of the experience of insight. Particular attention will be given to the variety of ways, in the experience of the research participants, in which this component is ‘key to a self-actualising process’. As previously, the discussion of this research finding begins with the evidence on which it is based in the experience of the four research participants, before it is broadened to consider the support and challenges to this finding from the nine other approaches to the experience of insight.

Sometimes the ‘tension of enquiry’ is released in slightly eccentric or somewhat inappropriate ways, as in Archimedes legendary ‘streaking’ from the baths. Probably there is something of this in **Desmond’s** flaw in etiquette. In his eagerness and excitement he gave his letter to a journalist, which led to its publication before the Prime Minister had had time to respond, despite having “some misgivings because I knew the courtesies required” (MU20). The evidence that the experience of insight motivates, enables and empowers action is clear in his sense of a categorical imperative: “its effect on me was that ‘you have to do this’” (MU16). This is particularly striking in view of the fact that he repeatedly raises the epistemological question of “how do you know this thing is for real ... and not a figment of your imagination ... how do you know?”(MU30). He insists that he is usually *not* sure whether an idea is a prompting from God or simply a distracting thought (MU26). It is significant that his experience of insight not only motivated him at a verbal level, but so inspired and empowered him at every level of his being – ‘body, mind and spirit’ – that he could express it in a very interesting way: “One of the odd things, actually ... one of the things that is extraordinary about this letter is that it wrote itself ... I didn’t have to agonise about the words ... they just seemed to come” (MU22). So his

experience fully justifies the finding that the experience of insight is ‘key to a self-actualising process’. This is clear confirmatory evidence of the integrity and validity of his insight to write this particular letter to this particular politician at this particular time. The significance of this is highlighted by his acknowledgment that “it may very well have been the first most overt political action that one had done” (MU24).

**Debbie’s** very different experience over a long period of several months came to a head one night listening to music. She refers to “Wow!” moments five times (in MUs 32, 36, 43) indicating her excitement or amazement. It is her version of the “Aha!” experience. Her change in attitude towards her husband was not in any way anticipated. She insists: “At no one time ... at no one time ... at no one time ... did I actually think around the lines of the e-mail to you, until that morning until I sat down and actually did it” (MU23). Insight is evidenced as ‘releasing the tension’ of her problematic situation and internal conflict by seeing a whole series of things, especially things in herself (as listed in an e-mail), in a new light. The clarity of insights arrived at in this way enabled her to take concrete decisions and actions in the life-world. It was the ‘key to a self-actualising process’ that became embodied; it was not just an abstract concept, which would not have enabled her to overcome her natural anxieties as well as her understandable fears (MUs 8, 15, 20, 29). She says: “I’m able to connect with my Self at my feelings level ... not on a superficial level ... not at a level where one normally relates from ... at a deeper level of myself” (MU16). She regards the night listening to music as: ‘key to a self-actualising process’: “That was [strongly emphasised] a big-time turning point ... that was. It was almost like ... [pause] ... a flower finally getting out of its tight little bud form ... it was the turning point, it was what I really wanted, what I truly, truly felt ... it was actually overcoming the fear, and being brave enough to actually stand and make that statement, and say ‘I will do this’” (MU37). Contrary to her normal self-protective way-of-being-in-the-world she is encouraged by the authenticity of her experience of insight to put it into practice, “because it is so real it helps you to risk it” (MU40). This is insight as ‘key to a self-actualising process; an active experience’.

It seems likely that **Roger** had a proleptic sense of his “Aha!” experience in his feeling of elation before he knew exactly what the idea/image/insight was; he reflects that he must have realised that it was a good idea, which solved the problem (MUs 24, 33). Perhaps the sense of being a little bit disturbed (MU16) was calling his attention to the need to recover this “lingering

impression” and make his experience of insight conscious. So he reviewed his day and recollects: “I finally came to the occasion of crossing the street and as I stayed with that feeling, I managed to bring to mind what that was” (MU17): “the trapped surface was the *key* [emphasised] idea” (MU23). As the key idea, it unlocked and enabled other aspects to emerge and fit together in **Roger**’s developing understanding: “I had a certain amount of expertise internally which I’d developed for other reasons ... it wasn’t that I could develop all this technique at that point to prove the thing” (MU21). He concludes “... but the key thing was that you have a trapped surface, and without something like that you can’t prove anything” (MU30). So it was ‘key to a self-actualising process; an active experience’.

**Tony** reflects that “sometimes you are lucky and something comes to you in a flash like that. You know that’s a happy inspiration. But most of these cartoons come as a result of quite a long process of associations, and then it’s more a sense of relief when it finally comes together” (MU8). So what he calls a “happy inspiration” releases the tension of enquiry and **Tony** is motivated as he begins the process of expressing his developing insight in cartoon-form (see Section 4.5). He recognises that it triggers further associations, fresh energy, further allusions and ideas (MUs 9-15). As it developed he “took quite a lot of *delight* in using those comic devices of speed ... lines ... and dust and what have you. The car suspended ... flying over the surface of the road like that ...” (MU15). He is motivated, delighted and empowered. It is ‘an *active* experience’. It is also a ‘self-actualising process’ in which, as he expresses it, “your general attitude to things is pretty important” (MU18).

So this finding, which completes the dynamic core of the experience of insight, is clearly evident in the experience of all four research participants. It is now relevant to reflect on this evidence in the light of the approaches developed in the literature review. Six reflections are particularly pertinent:

(1) The value of the existential approach of phenomenology is particularly clear in this finding in three respects. Firstly, it enables and values the interrogation of the experience of insight in a way that reveals not only that particular problems, unresolved issues and questions are resolved, but that the quality of our human existence is increased by insight, which is symbolically expressed in the “Aha!” experience. Secondly, it also has the capacity to do justice to the structural dynamic of the gestalt. ‘Seeing’ this is precisely what motivates, enables and empowers action; it is what creates the crucial dynamic of a ‘self-actualising process’. Thirdly,

it also emphasises the importance of the fact that the significance of our lives are affirmed in our choices and in risking decisive action. This is evident in the experience of all the research participants, but is perhaps particularly clear in **Debbie's** insight to risk seeking reconciliation with her husband. She describes the new quality of her life as “like a flower finally getting out of its tight little bud form” (MU37), an intriguing referenced to her previous self-protective mode, and a vivid organic picture of her personal ‘self-actualising process’.

(2) The puzzle-problem approach of cognitive psychology provides empirical evidence, cited in Davidson (1995), that correctly solved insight problems show an abrupt and dramatic increase in warmth ratings from 1-10 when a solution was reached, confirming the “Aha!” experience. However, imagine the impossible for a moment, that these warmth ratings could be applied to **Roger's** experience of insight. The evidence might well have been most confusing in detecting the significance of his elated feelings; the conclusion could well have been that with an incremental increase of 1-5 he was solving a routine, *non-insight* problem. This is not intended as a flippant dismissal of cognitive psychological research, but as a gentle reminder of its limitations.

(3) In the approach of great minds and dedicated lives, Gruber (1995, p. 399) demonstrates that “insights, whether they are small steps or great leaps, are part of a coherent life”, expressing a person’s “organisation of affect and purpose as well as his or her organisation of knowledge”. This aspect of the ‘self-actualising process’ for the research participants is developed further in Chapter 7.7. The ongoing, focussed energy which Darwin exhibited, is particularly evident in the minds and dedicated lives of **Roger** and **Desmond**, who are in their seventies, and the significance of the experience of insight in the unfolding context of their lives. This is considered in Chapter 7, Sections 11 and 12.

(4) It is widely recognised that in daily life metaphors and analogies are an important source of knowledge and understanding, as illustrated particularly in the experiences of **Debbie** and **Tony**, which may induce conceptual change as a result of an experience of insight. This is also reflected in the recognition of out-of-focus pictures or patterns of dots, as in ‘The Face in the Snow’ (Section 2.9.3 Figure11). It is also reflected in the interpretation of dreams; as Feldman (1989, p. 281) put it: “My insight in the shower transformed a dream image into a tool to work with”.

(5) The inter-subjective approach of psychotherapy to insight is particularly clear about the significance of the transformative power of insight. “Since Freud’s time, insight has been perceived as the cornerstone of the psychoanalytic theory of structural change” (Crits-Christoph et al. 1993, p. 408) and insightful interpretation has been described as the “supreme agent in the hierarchy of therapeutic principles” (Bibring 1954, p. 763). In addition, the most important finding in the study of Kivlighan et al. (2000) was the relationship between client insight and symptom reduction. This is a very clear indication of the significance and therapeutic power of insight in psychotherapy, and is entirely consistent with the finding that ‘the experience of insight motivates, enables and empowers action which is key to a self-actualising process’. This is particularly clear in **Debbie’s** experience, who says of her insight: “because it is so real, it helps you to risk [putting the insight into action]” (MU40). Moreover, it is the experience of almost every analytically orientated psychotherapist that clients experiencing self-insight through dreams find that they are not only motivated by them, but also find that such insights are ‘key to a self-actualising process’. Since insight in the therapeutic approach involves a conscious awareness of wishes, defences and compromises that have interacted to produce emotional conflict, the finding that insight results in releasing the tension of enquiry, even at an unconscious level, is also salient.

(6) The body-mind-spirit continuum approach of spirituality to this component of the experience of insight is particularly pertinent in this context of the experience of insight motivating, enabling and empowering action because it is especially sensed in the energy of the body and the spirit, sometimes prior to the conscious mind. This is not just true of **Desmond’s** experience, which may be described as a ‘spiritual’ experience, but it is also true and is illustrated in **Roger’s** experience, which may be described as a ‘scientific’ experience of insight. Both **Desmond’s** and **Roger’s** experience clearly reveals that insight may be experienced in the energy of the body, or the awareness of the spirit, before becoming conscious in the mind. Certainly, as **Roger** remarks: “rigorous argument is usually the *last* [emphasised] step!” (MU26).

This continuum approach, like the experience of insight itself, is non-dualistic and involves the call and invitation to live in accordance with the person’s true self or spirit; as opposed to a false self (*à la* Winnicott 1965). This is particularly significant in the context of a person’s values and making difficult decisions in life such as **Debbie** was faced with in relation to her husband’s unfaithfulness. Four factors in her experience of insight motivated, enabled and empowered her

to risk putting her insight into action. First, the clarity, authenticity and aesthetic quality of experiences of insight challenged and motivated her to risk putting her insight into action, empowering her to overcome her fears, rather than denying them: “because it is so real it helps you to risk it” (MU40). Secondly, she had a strong sense of synchronicity and experience of transcendence over the timing of hearing about the death of her husband’s dad (MU35). This was beyond her control, so it dramatically enhanced the experience and confirmed the truth and significance of her insight as well as challenging her to live it out. Thirdly, she recognises her fear that if she did not act on her insight, she might lose her husband; this increased her motivation (MU42). Her Christian faith permeates her whole process of facing her fears and frequently helps (MUs 4, 24, 26), but on other occasions her slightly idealistic interpretations of her faith, combined with her high expectations of herself, hinders the process (MU19). Finally, she had two complementary luminous images: one was the log of wood being burned and turned into fire (MUs 38, 41), depicting painful experiences relating to the influence of the life-world on the self. The other was the flower “getting out of its tight little bud form” (MUs 37, 39), describing the delightful blossoming and expression of the self or spirit; the influence of the Self on the life-world. Taken together, these four factors describe in considerable detail the nature and quality of her experience of insight as a ‘self-actualising process’.

The significance of insight as ‘key to a self-actualising process’ is discussed further in Chapter 7.7 as one of the distinctive values of the findings of this research.

This chapter began with an examination of the research findings comprising the first three constituent components (Sections 6.1, 6.2, 6.3) of the pre-conditions necessary for the experience of insight. At this point, the investigation of the three constituent components (Sections 6.4, 6.5, 6.6) of the dynamic core of the experience of insight is complete. The focus of attention now shifts to the four constituent components (Sections 6.7, 6.8, 6.9, 6.10) characteristic of the nature of the insight that is experienced.

## 6.7 Finding 7. The Changed Perspective

**The experience of insight involves transcending the usual or dominant way of seeing things.**

This research finding appears on the face of it to be obvious, a matter of common sense and therefore perhaps hardly worth mentioning; but such a dismissive judgment runs the risk of overlooking the significance of the *fundamental* quality and character of this constituent component of the experience of insight: it is both basic and central as the following detailed evidence reveals.

**Desmond** is aware that, from the present perspective, his “meaningful signs required for peaceful change” seem “piffling”, whereas “at the time they seemed to be very radical” (MU28). He also says “the trouble with these intuitions or insights is that it looks as if you are arrogant and presumptuous ... yes ... but the trouble is that I knew I was not my own master. At least I [emphasising the “I”] believed that! [laughing]” (MU29). So his humour, as well as his insight about diffusing the impending crisis, brought about by the dominant ideology of apartheid, are evidence of ‘transcending the usual way of seeing things’. It is noteworthy that he says: “I think that I was not peculiar at the time at being deeply concerned and very apprehensive ... aware of how people were feeling about the ‘system’” (MU3). This finding does not require that insight is a unique experience, although it may be so in the great discoveries, but that ‘insight involves transcending the usual or dominant way of seeing things’. His humour (MUs 17, 29) involves insight highlighting opposites, tensions and conflicting views in such a way as to see them in a new relationship to each other, which helps resolve tensions, expose pomposity and transcend set thought-patterns and the ‘dominant way of seeing things’.

**Debbie’s** way-of-being-in-the-world, as a result of discovering her husband’s long-term unfaithfulness, was predominantly marked by hurt, anger, fear and a desire to be in control in order to protect herself (MU3); this ‘dominant way of seeing things’ was radically challenged and transcended by her insight (MU37). As a result, she says that “now I have more insight, now I can be more vulnerable about it and see my part in it all. My controlling ... and the effect on Mark of being so ‘proper’” (MU43).

**Roger** is particularly clear that his “whole line or way of thinking of this kind of problem was not the way other people were thinking about it” (MU24). He explains that most of the “people who were working on these astrophysical problems didn’t even know the kind of topological arguments that I had some familiarity with, partly because I had a pure mathematical background, partly I just like to think geometrically; this is just the way I tend to think and most people didn’t. You see, most people would work out the equations and try and solve them *explicitly* [with emphasis], somehow, and that’s just not the way to do this problem” (MU29). As previously observed, there is an intriguing outward representation here of what is going on inwardly in **Roger’s** mind: he is cutting across the flow of traffic as he crosses the road, just as his thought processes are cutting across the flow of conventional thinking.

**Tony**, after looking for an issue about which he feels passionately, seeks to find a new angle or different perspective on the subject through humour, irony, lampooning or juxtaposing it with another issue. The whole value and effectiveness of a cartoon depends upon the expression of an insight that, to some extent, ‘transcends the usual or dominant way of seeing things’.

In the light of the evidence for this finding, discovered in the experience of all four research participants, it is appropriate to re-examine the approaches to insight developed in the literature review. Five aspects are noteworthy:

(1) The definitions of insight include “seeing and understanding the inner nature of things clearly” (Guralnik 1984). This is the core of many definitions of insight; but, as there is nothing about ‘transcending the usual or dominant way of seeing things’, this finding in this respect, goes beyond the normal definitions. Insight problems in gestalt psychology and cognitive psychology, all gain their character and potency as problems precisely because ‘the usual and dominant way of seeing things’ does not lead to their solution. That is precisely why strategies for solving the problems include such terms as ‘removing mental blocks’ and ‘restructuring’ the givens of a problem or ‘finding a problem analogue’. The fact that most cognitive psychologists reject the *business-as-usual* perspective and prefer the *prepared-mind* perspective (Section 2.5.1) implicitly indicates that insight involves ‘transcending the usual or dominant way of seeing things’. Gick and Lockhart (1995) draw attention to the two aspects of surprise and suddenness in the “Aha!” experience of insight and argue that the extent of the surprise will depend on the degree of incongruity between the original representation(s) and the representation that solves the problem. So, for example, a “joke sets up an expectation that does not fit with what is

generated by the punch line, and humour is found in the resolution of the incongruity” (Gick & Lockhart 1995, p. 203). So, often there is not only the satisfaction of having solved the problem, or riddle, but also the sense of having transcended the power of dominance, the tyranny of the phenomenon of the automatic. This is clear confirmation, from several different approaches, of this finding.

(2) In the phenomenological approach, ‘interpreting’ involves liberating possibilities of significance, understanding involves ‘venturing meaning’ and discovering involves whether it ‘rings true’. This is precisely what **Debbie** was involved in during her night of listening to music. There is a creative freedom and openness in such existential insight, which ‘transcends the usual or dominant way of seeing things’. In the approach of creativity, a genius is by definition someone whose outstanding talent, exceptional intellectual ability or creative achievements ‘transcend the usual’. Dreams clearly transcend the usual conscious and ‘dominant way of seeing things’. Reference has been made to the reverie or dreamlike state of Kekulé (Section 2.5.3) and Poincaré (Section 2.8.2) and the role this played in their experiences of insight. It is possible that **Roger**, who was “vaguely thinking” (MU13) about the issue of singularity and describes it as “buzzing around in the back of my head” (MU18), was close to a reverie or day-dream like state as he crossed the road. Dreams often have a different logic and usually require some interpretation as in the case of Feldman’s dream (Section 2.6.2). Design and invention owe their significance precisely to their ability to ‘transcend the usual way of seeing and doing things’. Simonton (1999a & 2000) has adduced evidence that creative people are disposed to be independent, unconventional, and are likely to have wide interests, flexibility and boldness in risk-taking. That is certainly true of both **Desmond** and **Tony**; their passionate involvement in issues of justice emphasises those qualities.

(3) In the case study approach of great minds, paradigmatic shifts in thinking are the most obvious and dramatic examples of the result of insight confirming this finding. One hundred and fifty years after the publication of *On the Origin of Species*, it is easy to underestimate the personal struggles, the relational difficulties, the religious attacks and the professional disputes involved for Darwin in challenging the dominant view of creation and the origin of man. Reflecting on Darwin’s experience of insight, Csikszentmihalyi and Sawyer (1995, p. 344) conclude that “the development of the evolutionary paradigm was the result of a lifetime spent elaborating the implications of an insight that was itself a result of a protracted series of partial

understandings”. There are some parallels here with **Desmond’s** experience of insight resulting in writing to the Prime Minister. In taking a strong public stand against the dominant ideology of racism he suffered extraordinary attacks, humiliations and ‘dirty tricks’ by the apartheid regime; even now he continues to be criticised by the new government by challenging reverse racism in South Africa and in Zimbabwe, by Mugabe for example. It is the exceptional human being, such as **Roger** and **Desmond**, who throughout his or her life retains a hunger, a humility, a curiosity, a passion, a sense of wonder and humour, which transcends the dominant way of seeing things.

(4) In the inter-subjective approach of psychotherapy, the little insights in the course of therapy, the gradual shifts in understanding and the struggle of gaining an increased sense of meaning, testify to the time and energy required to ‘transcend the usual or dominant way of seeing things’.

**Debbie’s** experience illustrates this vividly. Analytical intuition has been shown to be faster, more accurate and more sophisticated than analytical thinking (Hammond, Hamm, Grassia & Pearson 1989). Reber (1989) deduced that knowledge acquired and held implicitly is always more complex than can be explicated, so verbalisations appear to lag well behind the actual depth of our intuitive understanding. Taken together, these conclusions support the finding that insight transcends not only *what* is usually seen, but also *how* it is usually seen. Intuitive insight is, as Jung (1971 p. 454) put it, “not *contrary* to reason but beyond reason”, as **Desmond’s** experience testifies. Both Bion with his ‘binocular vision’ and Jung with his ‘transcendent function’ were aware of the need for correlation between conscious and unconscious data in order to arrive at analytic insight.

(5) Finally, the evidence of the body-mind-spirit continuum approach of spirituality is considered. Just as Darwin transcended the usual or dominant view of creation in *The Origin of Species* (1859), so de Chardin transcended the usual and dominant view of evolution in his *Phenomenon of Man* (1959), as argued in Section 2.11.1. His insight, a synthesis of evolutionary science and spirituality, so transcended the dominant view that it was not even accepted initially by the Roman Catholic Church of which de Chardin was a priest of the Jesuit Order; his work was published posthumously.

This finding is also confirmed by the crucial insight of *ubuntu* in African spirituality, so movingly articulated by Cynthia Ngewu, and powerfully argued by Krog (2008a) as the single, crucial and foundational insight underlying all three of the innovations of the TRC process (Section 2.11.6.4). This is contrary to the predominantly *individualistic* view of the Western

world. The TRC was not only chaired by **Desmond**, but was also movingly epitomised on television by his weeping for victims, and even on occasion for the perpetrators, as an expression of *ubuntu*.

In conclusion, clearly there is an essential quality of insight which transcends the usual or dominant way of seeing things. This is not only evident in the experience of each one of the research participants, and confirmed in the approaches of creativity, case-study of great minds, psychotherapy and spirituality; the essential truth of this finding is not questioned by any of the approaches to insight, even when its essential significance and fundamental quality is not fully appreciated.

## **6.8 Finding 8. The Self-Authenticating Experience**

**The experience of insight is self-authenticating, the result of insight is tested in the public realm and is historically validated or rejected.**

As with the previous research finding, this finding may, at first glance, appear to be so obvious as to be hardly worth listing. Yet the value of this descriptive approach of existential phenomenology, to the very different experiences of all four research participants, is that it reveals a wealth of detail and subtle nuances of meaning in seeking to understand the variety of ways in which insight is self-authenticating.

**Desmond** acknowledges that he is usually not sure whether an idea is a prompting from God or simply a distracting thought (MU26). By contrast, on this occasion, “there didn’t seem to be any question of doubting. It was as certain as anything” (MU26). In fact he experienced it as a categorical imperative, “Its effect on me was that ‘you have to do this’” (MU16). The reality of this existential experience of insight was ‘self-authenticating’: “once it came, then it was there ... there wasn’t a matter of any self-doubt” (MU19). In addition, the aesthetic quality of this spiritual experience had a powerful self-authenticating effect, for he says: “one of the things that is extraordinary about this letter is that it wrote itself ... I didn’t have to agonise about the words ... they just seemed to come” (MU22). This evidence of ‘the experience of insight as self-authenticating’ is particularly significant in the light of his self-awareness expressed in “it is

horribly presumptuous isn't it?" (MU18) and his repeated awareness of the problems and questions related to epistemology, validity, rationality and authenticity (MUs 15, 18, 30, 31, 32). Whether or not others judged his actions as divinely inspired was not the primary issue for Desmond. The critical and decisive factor was the reality and existential quality of the experience (MU19) and his obedience to God: "I couldn't be disobedient to what seemed to me to be God saying 'this is what you are to do'" (MU17). But he is understandably insulted by the assumption that Black people are intellectually incapable of writing such a letter and so having it dismissed by the Prime Minister as political propaganda emanating from the official White opposition (MU21). In his letter to the Prime Minister, Desmond expressed his insight as a "growing nightmarish fear that unless something drastic is done very soon then bloodshed and violence are going to happen in South Africa almost inevitably" (Section 5.3.3). This has a luminosity and a prophetic quality about it in the light of the Soweto Uprising only five weeks later (MU32), and the fact that in the ten months following June 16<sup>th</sup> at least 660 people were killed, most of them under 24 years old. Sadly it was indeed 'historically validated'.

**Debbie** says of her experience of insight, "God's timing was absolutely perfect" (MU35), because two hours after sending the e-mail detailing her insights Mark phoned to say his dad had died. Debbie is very clear that she would never have sent the e-mail to me if Mark had phoned first, out of fear of taking advantage of his vulnerability, nor would she have trusted or acted on her insights, but would have continued her 'false self' (MU35). So Debbie's central experience of insight, that she really wanted to work for reconciliation with Mark, was self-authenticating and dramatically enhanced and practically empowered by this aesthetic experience of synchronicity and transcendence. Debbie, when asked about her reconciliation with Mark, inviting him back home and renewing their marriage vows before a full congregation in church, said two years later: "It's one of the most sane things I did. Actually listening to (her insight) and daring to do that" (MU37).

**Roger's** experience of insight is not only verified by the mathematical proof; the experience and the process also have a 'self-authenticating' quality. He recognises that he must have realised that this was a good idea, even before he knew what the idea was (MU33). So the sense of insight as 'self-authenticating' not only follows, but appears to be so integral to the whole experience of insight, that it may even proceed the conscious "Aha!" experience of insight, when its full value is recognised. This is a significant extension of the usual understanding of this

constituent component of insight and one that is not likely to be established in a laboratory setting, and is not, as far as I am aware, previously reflected in the literature, but it clearly emerges here in real life experience. He also supposes that if the idea/image<sup>58</sup> of the ‘trapped surface’ “had not had some aesthetic quality to it, it would not have reached any appreciably permanent level of consciousness at all” (MU27). He reflects: “A beautiful idea has a much greater chance of being a correct idea than an ugly one. At least that has been my experience” (MU25). He also thinks, “it is consciousness that is the arbiter” and even a sudden and powerful flash of insight “would be quickly rejected and forgotten if it did not ‘ring true’” (MU26). He likes “to use the word ‘understanding’ as encapsulating what you can do with conscious thought, and what a computer can’t do ... it doesn’t understand because it’s not conscious” (MU40). Roger’s scientific insight has to be verified by proof and then tested by the scientific community and so validated or refined. It did not take him long to form the outline of a proof of his insight; “although it was a few months before the proof was formulated in a completely rigorous way” (MU20).

**Tony** reflects that, in contrast to the slow delivery of Land, “it’s all systems go for Arms delivery, and I took quite a lot of delight in using those comic devices of speed ... lines ... and dust and what have you. The car suspended ... flying over the surfaces of the road like that” (MU10). His aesthetic sense of delight is evidence of the ‘self-authenticating’ quality of his experience of insight as he gives expression to it in the cartoon. Tony’s public record as a cartoonist with the *Cape Times* was particularly tested and historically appreciated and validated during the dark apartheid years, when there were many emergency regulations restricting the taking of photographs of security forces, reporting on names of detainees and so forth. In particular he found parody a very effective form of ridicule and criticism, precisely because “it’s actually very difficult to prove the allusions that you are making in a court of law, because hopefully cartoons are fairly subtle. At least I hope that the cartoons I devise can be read on these different levels” (Appendix A). That was certainly ‘historically validated’.

---

<sup>58</sup> The word **idea** comes from the Greek *idein*, meaning to see. The word **image** comes from the Latin *imago* which is the source of our English word imagine. So both words have their roots in “seeing” and “inwardly seeing” in imagination, so are profoundly related to the experience of **insight**.

At this point, as previously, it is appropriate to review the literature in the light of this finding of the experience of all the research participants. Five points are particularly salient:

(1) As has been noted, several definitions of insight include “by intuition” (Guralnik 1984) or “to see clearly and intuitively ...” (Rooney 1999). In this context *intuition* is “the immediate knowing of something without conscious use of reasoning” (Section 2.2) and is self-authenticating. Hill (1987) distinguishes *classical intuition* as a holistic judgment that integrates diverse sources of information (Section 2.2.2). It is precisely in this sense that intuition in insight can be said to be truly ‘self-authenticating’, as is particularly clearly illustrated in the very different experiences of both **Desmond** and **Roger**, and provides the *basis* upon which inferences and deductions can be drawn, enabling the insight to be ‘tested and validated in the public realm’. This finding appears to challenge the conceptual framework of intuition in cognitive psychology, and is examined further in Chapter 7.16.

(2) The continuing value of gestalt psychology’s understanding of insight in a holistic, structural and dynamic way is illustrated by the significance of this finding: just as a pattern may be recognised as ‘complete’ or a tune as ‘perfect’ (with not a line or a note out of place in terms of the whole, as, for example, in Shostakovich’s Piano Concerto # 2, 2<sup>nd</sup> movement), at the same time it is entirely reasonable, indeed important, that this personal experience of insight should be ‘tested and validated in the public realm’, as has been the case with Shostakovich. In the existential approach of phenomenological psychology, the experience of insight is deepened; it is not just that there is not a note out of place, we begin to tap our feet with the music; we are existentially involved, as the responsive feeling of elation in **Roger’s** experience testifies. Insight as ‘impact’ and ‘interpreting’ is an invariantly required co-organiser of meaning in its structured truth as a life-world event. It is insight into what is required, what is of value, what is meaningful and even what is reality. It is entirely consistent with the philosophical understanding of the *non-inferential* nature of intuitive and insightful apprehension and as such it affirms and confirms this finding that ‘the experience of insight is self-authenticating’. In this experience of insight, *past* experience, *present* meaning, and *future* possibilities come together, they are in accord, or in a chord, which ‘rings true’; it is an ecstatic experience of time’s three dimensions. In this self-authenticating experience of insight, the self and the world complete and complement one another. The *duality* of the self and the world is no longer the *dualism* of the subject and object. This is particularly clear in **Debbie’s** experience as she listened to music.

This is why insight cannot be realistically understood just as a mechanism, but only on the much deeper level of a human experience involving the meaning of the human being's potentialities, including the individual's unique pattern of abilities.

(3) The creative approach of genius, dreams, design and invention provides important evidence of the value of this research finding. However baffling dreams appear to be initially, as possible interpretations are explored there often occurs a significant, sometimes a very powerful sense, that a particular experience of insight into the meaning of the dream is 'self-authenticating'. Such was Feldman's experience in the shower, when he exclaimed out loud: "The ride is not inside, it's outside" (Feldman 1989, p. 275). The experience of insight is generally thought by scholars to be a significant and integral aspect of creativity, but the specific role that it plays in the creative process is hotly debated. The evidence in this thesis is that the role that insight plays in experience will vary both with the person and the particular creative process, rather than following any particular process or mechanism. So it may not be possible to argue that the experience of insight in creativity is *always* self-authenticating, although it usually is. As **Roger** expresses it: "the strong conviction of the validity of a flash of inspiration or insight, is very closely bound up with its aesthetic qualities" (MU25). That is his experience. It is of particular significance in the context of creativity that this is so, "both in relation to the conviction that would be felt with ideas that might possibly qualify as 'inspirational' and with the more 'routine' guesses that would have to be made as one feels one's way towards some hoped-for goal" (MU25). That this applies to both the more 'inspirational' and the more 'routine' is particularly evident and important; as is illustrated in **Tony's** experience as he follows his associations, hunches and trusts and takes delight in the creative process (MUs 15-16). It is certainly not possible to argue that the results of creative insight are always validated at the time in the public realm; too many musicians, such as Mozart, and artists, such as Gauguin, have died in poverty with the value of their creative work largely unrecognised by their contemporaries, only to be acclaimed by later generations; so they are, in the wording of this component: 'historically validated'. Schooler et al. (1995), like many others, use the analogy of relating insight to recognising out-of-focus pictures or patterns of dots (e.g. Figure 11, in Section 2.9.3). The sudden shift from no sense of what is depicted, to complete clarity, certainty and sense of coherence about what *is* depicted, corresponds to, and affirms the finding, that 'the experience of insight is self-authenticating'.

(4) The case-study approach of great minds experiencing insight furnishes abundant evidence of the value of this research finding as well as the variety of ways in which insight is ‘self-authenticating’. For example, Feynman, jumping up from the stool, cried out: “Then I understand EVVVVVERY-THING!” (Section 2.5.3). This “law of nature” was subsequently rigorously ‘verified’ in the scientific and ‘public realm’. Poincaré (1921, p. 388) recounts that as he boarded the bus “the idea came to me without anything in my former thoughts seeming to pave the way for it”. He did not have time to verify it but insists “I felt a perfect certainty. On my return to Caen, for ‘conscience’ sake I verified the results at my leisure” (Section 2.8.1). Darwin is quoted as saying “I can remember the very spot on the road, whilst in my carriage, when to my *joy* the solution occurred to me” (F. Darwin 1892/1958, p. 43, italics added). So great minds experiencing insight clearly experience insight’s ‘self-authenticating power’ in a similar way to **Roger**, who after counting how much freedom his picture of Twister theory had, “got very excited ... it turned out to have just the right mathematical property” (MU27).

(5) The inter-subjective approach of psychotherapy to the experience of insight is one of great respect. The psychotherapist may suggest an interpretation, but will not force it precisely because of respect for the transformative quality and ‘self-authenticating’ power of the client’s own experience of insight. Winnicott (1971, p. 66) shared: “I often relieve my mind by writing down interpretations that I actually withhold. My reward for withholding interpretations comes when the patient makes the interpretation herself, perhaps an hour or two later”. So he makes “a plea to every therapist to allow for the patient’s capacity to play, that is to be creative ... The patient’s creativity can be only too easily stolen by a therapist who knows too much” (Winnicott 1971, p. 67). Clearly this was not the case with **Debbie**; perhaps because her therapist did not ‘know too much’. Her insights came together with self-authenticating power when she was on her own listening to music. Jung also makes a plea for the analyst to play creatively in what he calls “a state of contemplation, in which ideas pass before the mind like dream images ... such a moment often works like a revelation” (Jung 1946b, p. 116). Such a ‘revelation’, also described by Jung as ‘transcendent function’, is the equivalent of a self-authenticating insight. Such experiences of insight are tested and validated in the inter-subjective therapeutic relational field that patient and therapist share, which in this case is the appropriate ‘public realm’. The research of Kivligham et al. (2000), involving trained judges evaluating the clients’ responses and insights, provides clear evidence of the experience of insight being tested and validated in the

public realm, confirming this finding. Another very different but significant piece of research is that of Todres (1990), who found that the experience of self-insight by the client always carries a greater sense of freedom. This is essentially because self-insight is, as Todres argues, ‘sense-making’, and enables emotional healing in terms of inner truth, self-acceptance and personal agency. In this way, self-insight carries a greater sense of freedom, which is profoundly ‘self-authenticating’. This is certainly confirmed in **Debbie’s** experience of self-insight (MUs 20, 24, 29-31, 36). She sums up her greater sense of freedom in an image: “That *was* [strongly emphasised] a big-time turning point that was. It was almost like ... [pause] ... a flower getting out of its tight little bud form” (MU37). Mrs Ngewu’s insight, haltingly expressed, is not only a significant example of insight as ‘self-authenticating’, but it was also profoundly ‘tested in the public realm and historically validated’ in the TRC. It played a crucial role in convincing the other mothers of the Gugulethu Seven to meet with the *askari*<sup>59</sup> Mbele, so that *he* could start to change/heal/recover his humanity, so that *all* of them could walk their interconnected paths towards healing and wholeness.

However, two aspects of this finding are not explicitly evident in the literature, and stand out as worthy of further consideration. First, it is of considerable interest that, arising out of the richly detailed descriptions of the experience of the four research participants, there is such a profuse variety of ways in which the experience appears to be ‘self-authenticating’. Second, it has been argued from **Roger’s** experience of a feeling of elation, that he realised that this was a good idea even before he knew what the idea was (MU33). So the sense of insight as ‘self-authenticating’ not only follows, but is so integral to the whole experience of insight, that it may even be present at some level before the conscious “Aha!” experience of insight when its full value is recognised. In the light of the significance of both these aspects of this research finding, it became clear that the experience of the other research participants should be interrogated to discover whether this ‘self-authenticating’ quality was also an integral part of their experience of insight, rather than just a final or subsequent conviction. This investigation and the findings are described in Section 7.9, as one of the distinctive values of this research.

---

<sup>59</sup> A guerrilla who secretly changed loyalties and spied for the South African Police Force

## 6.9 Finding 9. The New Understanding

**The experience of insight results in an understanding which possesses a significance greater than its origin and a relevance wider than its original application.**

This is the third constituent component characteristic of the nature of insight. This component clarifies two of the findings that flow from the experience of insight. Again this finding has a certain deceptive simplicity about it. So, in order to value its pertinence, it will be appropriate to demonstrate that it is clearly discovered in the experience of the research participants, and to explore to what extent it is supported by the theories of the nine approaches to the experience of insight, and whether it goes beyond them. In addition it may be beneficial to illustrate something of the ‘significance’ and ‘relevance’ to which it refers, in the lives of the research participants as well as some of the persons referred to in the literature.

**Desmond** went into retreat “in a welter of emotions, in my own personal situation ... but also the deep sense of foreboding ... you felt the clouds were gathering” (MU11). He did not know what to do. As a result of his insight, what was previously an insuperable problem, becomes an incredibly simple and obvious matter of obedience in terms of writing the letter (MUs 16,17). The fact that Desmond is now widely regarded as an icon, both of the resistance to apartheid in ‘speaking truth to power’ and in the role of reconciliation and forgiveness in the peaceful transition to democracy in the new South Africa, is evidence of the way that this insight, which was probably his first and certainly his “most overt political action” (MU24), resulted in ‘an understanding which possesses a significance greater than its origin and a relevance wider than its original application’. This ‘significance’ and ‘relevance’ of his ‘understanding’ and resulting actions grew in the following years to the point where he was awarded the Nobel Peace Prize. So it was natural that he should be appointed as the Chairperson of the Truth and Reconciliation Commission. Indeed it continues, for it is a matter of record that Desmond has persisted in ‘speaking truth to power’ ever since, at a national level to the ANC government, and at an international level.

**Debbie** reveals that her experience of insight has resulted in ‘an understanding which possesses a significance greater than its origin and a relevance wider than its original application’, in terms of two complementary images, enabling her to continue to live out her experience of insight under different conditions: the burning log transmuted to fire (MUs 38, 41), and the bud

blossoming into a flower (MUs 37, 39). The first describes the painful self-insight, the suffering, the transformation and endurance required to form an authentic relationship. The second describes the delightful self-awareness, the growth, the blossoming and full expression of the individual necessary for an authentic life. So her understanding is that her growth is both a very painful process and a very natural process; both a reductive process and an expansive process; both exposing flaws to transform them and a revealing of unexpected beauty. So her experience of insight has resulted in an ‘understanding’ which lives on in these compact, luminous images (MU43).

**Roger**, before he could solve his problem, needed a moment of inspiration, but once he understood, as a result of his insight, he had crossed a divide (MU20). What previously seemed an insuperable problem now becomes clear, even simple and obvious as a “trapped surface” (MUs 23, 24). However laborious the first occurrence of an insight may be, subsequent repetitions and applications occur almost at will. This is the universal characteristic of insight and it constitutes the possibility of learning, and increasing understanding, as insight is added to insight. So now in the warp and woof of advancing mathematical and cosmological understanding, Roger’s proof ‘possesses a significance greater than its origin and a relevance wider than its original application’.

**Tony** comments on the power of cartoons, particularly during periods of censorship, precisely because of the memorable connections and subtle allusions they form in people’s minds, and the change of understanding and way of seeing things that can result from a good cartoon. This is evidence that the experience of insight results in ‘an understanding which possesses a significance greater than its origin and a relevance wider than its original application’. He is also clear that something funny or entertaining makes the cartoon more memorable and readable (MU7). “At least I hope that the cartoons that I devised can be *read on these different levels*” (Appendix 1).

It is now appropriate to interface this finding with the relevant literature. Eight perspectives are particularly pertinent:

(1) A number of definitions of insight do include the element of ‘understanding’ (Section 2.2), for example, the definitions in Webster’s New World Dictionary (Guralnik 1984), “seeing and understanding the inner nature of things clearly” and the Oxford Dictionary of Psychology (Coleman 2006) “clear and deep understanding or perception”. Smith (1995, p. 232) also defines

insight as “an understanding”, Ansborg (2000, p. 143) as “a new understanding” and Dominowsky and Dallob (1995 p. 37) as “comprehension”. However none of them give any indication that such an understanding ‘possesses a significance greater than its origin or a relevance wider than its original application’. It could, of course, be argued that such a conclusion is taken for granted in the word ‘understanding’. Yet precisely because of the sudden and sometimes dramatic nature of the experience of insight, it is often regarded as a phenomenon in itself, rather than including this ‘greater significance’ and ‘wider relevance’; so it is not inappropriate for what is implicit to be clarified and made explicit. The use of the word ‘understanding’ in this finding follows the Encarta World English Dictionary (Rooney 1999) and implies firstly the ability to grasp a meaning or gain a sense of something, secondly the interpretation of or inference from something, and thirdly an empathic knowledge of a person or situation. All of these depend as much on emotional intelligence as on cognitive intelligence. ‘Understand’ comes from the old English *understandan*; “the underlying idea is ‘to be close to’” (Rooney 1999). So ‘understanding’ implies an empathy, a receptivity, rather than simply an intellectual acuity<sup>60</sup>.

(2) The existential approach of phenomenological psychology to the experience of insight, insists that insight is an invariantly required co-organiser of a network of meaning in the lived dimensionality of the existential space of possibility. In the context of such an inter-active, developing, dynamic and existential view it is impossible to conceive of an experience of insight that does *not* have a ‘significance greater than its origin and a relevance wider than its original application’. While conventional psychology has emphasised the *past*, and gestalt psychology introduced a *present* dimension, *future* existential possibilities are characteristic of phenomenology. This forward looking dimension is particularly in **Desmond’s** experience of insight, which might appropriately be described as prophetic. It is also evident in **Debbie’s** experience of insight regarding her future relationship with her husband.

(3) In a completely different way, the approach of cognitive psychology also supports this finding and employs the terminology of ‘verification’ or ‘validation’ in this context; it is a conscious effort to explicate, evaluate and elaborate the result of the insight and to incorporate it into a larger body of understanding, as illustrated in **Roger’s** experience of insight revealing the ‘key’ to solving the particular problem by liberating other relevant knowledge. In similar vein,

---

<sup>60</sup> Acuity comes from the Latin *acuere* ‘to sharpen’ and *acus* ‘needle’.

the philosopher Lonergan (1983, p. xii) insists that “every insight unifies and organises” our understanding or, to articulate it inversely, “a single insight is expressed in many concepts” (Lonergan 1983, p. 14). So, when concepts are described as ‘coherent’, it is fundamentally a statement that they hang together from a single insight. This is a clear confirmation of this finding. However it is important to enter a *caveat* at this point. With the mention of ‘concepts’ there is a danger of interpreting the word ‘understanding’ in this finding in an almost exclusively intellectual sense in cognitive psychology. It is part of the Western philosophical tradition of intellectualising the experience of insight. Even a researcher of Davidson’s experience, records the finding that “highly intelligent subjects performed better on all types of problems than the average ability subjects” (Davidson 1995, p. 141). The use of the word *all* is revealing. It reflects the limited nature of the 24 problems presented to the subjects in that particular research. It also reveals the limited value of this type of cognitive research for investigating the nature of the *lived experience* of insight.

(4) It is arguable that in the approach of creativity, genius and dreams tend to emphasise the major shifts and paradigmatic changes in understanding that occur through insight, whereas often in design and invention creativity tends to occur in a series of smaller shifts, hunches, glimpses and intuitive experiences of insight. Nevertheless the difference, as has been argued (in Section 2.6.8.1), is a matter of a single isolated component (as in Section 6.3), rather than the same component integrated as a constituent component of the whole experience of insight, as is illustrated in **Tony**’s experience. The approach of creativity generally is consistent with this finding. Feldman’s dreams leading to insight into “co-occurrence” resulted in helping to transform his way of understanding developmental processes, which also became an important part of a broader body of scholarly work demonstrating that major developmental changes not only occur, but are also central features of what it means to be human (Section 2.6.8.1). This is a clear example of insight resulting in ‘an understanding which possesses a significance greater than its origin and a relevance wider than its original application’.

(5) In the representational approach of models of insight, Campbell’s (1960) use of the evolutionary paradigm to explain the growth of knowledge in general, of which creativity and insight are special cases, throws some light on, and gives some support to, this finding. For an experience of insight results in a ‘selected’ understanding, which is then ‘retained’ for transmission to the next generation and is often accepted and used without question

demonstrating that it possesses a significance and relevance transcending its origin. This is already true for cosmologists with respect to **Roger's** insight of the 'trapped surface' (MU23). In a very different model, an interpsychic representation of insight, Csikszentmihalyi and Sawyer (1995, p. 344) conclude: "In reality most creative ideas, especially of a discovered kind, are the result of multiple cycles of preparation, incubation, insight and elaboration, with many feedback loops". It is precisely these ongoing cycles and feedback loops that enable, and result in, the quality of understanding described in this finding.

(6) The case-study approach of great minds experiencing insight, as illustrated in the mathematical discoveries of Poincaré (in Section 2.8.1) and the evolutionary theory of Darwin (in Section 2.8.2), provide classic examples of this finding. Poincaré's discoveries have become part of the texture of the minds of mathematicians at least. Darwin's understanding of evolution continues to develop and to be debated at some level, in most people's minds; the point holds even in the most vehement denial of evolution. As previously noted (in Section 2.8.3.1), many of these insights of great minds which have changed our world have also become part of the warp and woof of our own pattern of thinking and daily understanding.

(7) The inter-subjective approach of psychotherapy very clearly and obviously illustrates this finding. In psychotherapy, as for example in the experience of **Debbie**, it is usually a cumulative series of insights that result in increased understanding. This is evident precisely because of the unfolding and expanding quality of the understanding which is experienced as having increasing significance and growing relevance as different aspects of the client's life and relationships are explored in the on-going process of psychotherapy and the 'potential' of this understanding becomes 'empowered'. For, as Todres (2002) convincingly demonstrates, self-insight points to an understanding and experience of "being more than", or of "being as possibility", precisely because of the way self-insight implies an understanding that links parts into wholes.

(8) The body-mind-spirit continuum approach of spirituality to the experience of insight has a particularly clear contribution to make in terms of this finding. To take a simple but profound example, Frankl's experience in the Nazi concentration camps at Auschwitz and Dachau convinced him that hunger, lack of sleep, brutality, inferiority, and so on were not the determining factors: "But ultimately and essentially they are a spiritual attitude. For in every case man retains the freedom and the possibility of deciding for or against the influence of his surroundings" (Frankl 1973, p. 98). That insight resulted in an understanding about the crucial

significance of *meaning in life* which ‘possesses a significance greater than its origin and a relevance wider than its original application’ in a prisoner of war camp. This greater significance and wider relevance is clearly evident in the experiences of insight of **Desmond**, **Debbie** and **Roger** and the results in the unfolding of their lives and influence.

In conclusion, it is submitted that not only is this finding clearly discovered in the experience of all four research participants, but that, in addition, the explicit and implicit support of all the approaches to insight developed in the literature review, places this finding beyond contradiction. Yet it is not articulated as clearly, fully and explicitly in the literature as in this research finding. The significance of the quality of ‘understanding’ in insight is discussed further in Section 7.8 as one of the distinctive values of the findings of this research.

### **6.10 Finding 10. The Recurring Quality**

**The experience of insight not only occurs, but keeps recurring; it is not an end in itself, but rather a fresh beginning; at each recurrence, understanding develops and action is enabled ... until a new problem, unresolved issue, question or tension emerges, requiring fresh insight.**

This is the final constituent component of the experience of insight which in fact completes the cycle of insight, and at the same time re-connects with the first constituent component. This is because, inevitably, the time will come when a different problem will arise in the current understanding, necessitating another ‘experience of insight arising out of a person’s awareness of, and engaging with, the problem, unresolved issue, question or tension’.

**Desmond** refers to the proposals he put forward in his letter to the Prime Minister as “really piffling. I suppose at the time they seemed to be very radical” (MU28). He also recognises that “if the thing was going to be resolved, a crisis had to occur. That was about the only way they would begin to see sense ... maybe” (MU28). This is evidence of his recognition of the truth that the insight to write to the Prime Minister is not an end in itself and, although it did not achieve the desired result, the Soweto Uprising became a fresh beginning in the Struggle for Justice. So ‘at each recurrence understanding develops and action is enabled ... until a new problem emerges’. In fact, this particular struggle for justice, in terms of a democratically

elected government of South Africa, continued for another eighteen years. Now, of course, there are new problems requiring further experiences of insight.

**Debbie**, in her e-mail, lists a series of six experiences of insight (MUs9-15) which have a cumulative effect in terms of recognising her desire not to file for divorce, but to seek reconciliation with her husband. This is patent and unequivocal evidence that the experience of insight not only occurs, but keeps on recurring, it is not an end in itself, but rather a fresh beginning: at each recurrence understanding develops and action is enabled. Evidently, some experiences are more powerful than others in promoting understanding and action. But the timing, clarity, authenticity, aesthetic quality and cumulative effect of her experiences of insight challenge her and enable her to live true to her insight.

**Roger's** experience of insight illustrates the truth of each phrase of this final finding particularly clearly and fully. The opening phrase 'Insight not only occurs, but keeps recurring', illustrates the recurrent nature of insight and is evident in at least three different and interesting ways. First, despite the fact that he had no conscious memory of it, what had occurred, recurred. He was able to re-member it, re-imagine or re-constitute it (MUs 12, 14, 17, 27). Second, in a different sense, his insight 'keeps recurring' in the experience of others because it is still used to determine whether a black hole is likely to occur (MU23). Third, insight recurs in the sense that he has experienced many different insights. Besides the 'trapped surface' he refers to two others in the interview; the origin of his twister theory (MU37) and his playful mathematical construction resulting in the discovery of tiles that may underlie a strange new kind of matter (MU41). The next phrase, insight 'is not an end in itself, but rather a fresh beginning', reveals that his insight provided the necessary impetus for a fresh beginning since "it didn't take me long to sketch out a proof of the fact that you had to go singular in this way, basically from things I'd known about before" (MU20). In the third phrase 'at each recurrence understanding develops and action is enabled', he acknowledges that it was a "few months before the proof was formulated in a completely rigorous way" (MU20), but repeatedly emphasised that the insight of "the trapped surface was the *key* [emphasised]" (MUs 23, 18, 29, 30). The final phrase 'until a new problem, unresolved issue, question or tension emerges, requiring fresh insight', demonstrates the scientific methodology and the whole sweep of scientific progress, as well as his personal experience (MUs 8-11).

**Tony's** experience of producing cartoons five times a week over many years for the *Cape Times* is yet more evidence, of a different nature, that 'insight not only occurs, but keeps on recurring; it is not an end in itself but rather a fresh beginning'. Tony reflects that: "Sometimes you are lucky and something just comes to you, in a flash like that ... But most of these cartoons come as a result of quite a long process of associations" (MU16). This is evidence of the necessity of both the 'little steps' of preparation and the 'giant leap' of insight. Tony's experience also illustrates this finding, that 'at each recurrence [of insight] understanding develops and action is enabled'. This is seen particularly clearly in relation to Cartoon 5 (MUs 14-15). However, a cartoonist is never short of new material; there is always some folly, corruption, problem, irony or conflict crying out to the trained ear and eye of the cartoonist, for insightful expression.

At this point, having clarified this final finding in the experience of all four research participants, it is appropriate for the last time to review the literature in order to assess the significance of this finding. Five aspects are relevant:

(1) Understandably this finding goes beyond all the definitions of insight, yet it is a crucial component of the nature and structure of the experience of insight. Mayer's (1995, p. 3) definition of insight as: "the process by which a problem solver suddenly moves from a state of not knowing how to solve a problem to a state of knowing how to solve it", comes closest to the part of the finding that 'insight is not an end in itself but rather a fresh beginning', since Mayer does not claim that insight provides a solution, but the right solution path. What is distinct about this finding is the *recurrent* nature of insight when previous understanding has proved inadequate in developing fresh understanding and enabling appropriate action.

(2) The existential approach of phenomenological psychology to the experience of insight gives strong support to this finding on three grounds. The first reason is because, as argued, insight is both 'impact' and 'interpreting', determining one another circularly and reciprocally, there is an ongoing process, so insight keeps recurring and, at each recurrence, understanding develops and action is enabled. The second reason is because there is a unity of time's three dimensions, past, present and future which reciprocally determine one another, and enable past experience, present meaning and future possibilities to come together and influence one another in the recurring experience of insight. The third reason is because 'meaning' and 'self' are understood as circularly determinative of one another, and experienced as 'feeling' which is not just an inner experience, but is always and already existentially beyond itself in the world. So 'feeling',

defined in this way, is “the *breadth* of being already disposed to available meanings, the *depth* of imagining these possibilities meaning has coming to it, and the *immediacy* of a present releasing of and being touched by meaning” (Fuller 1990, pp. 201-202, italics added). It is this *breadth*, *depth* and *immediacy* that ensure that ‘the experience of insight not only occurs, but keep recurring’ and that the self and the world complete and complement one another, so that ‘understanding develops and action is enabled’.

(3) The approach of creativity makes three important contributions to this finding. Firstly, in the course of a creative work, whether it be musical composition, visual art, writing, sculpture, design or invention, there are often ‘presented problems’ solved by a number of small but necessary flashes of insight and sometimes there are interconnected insights in the development of the creative work (e.g. Baughman & Mumford 1995, Gardner 1988, Smith & Dodds 1999). This is consistent with, and illustrated in, **Tony’s** experience, which is clear evidence supporting this finding in that he was able to produce insightful cartoons five days a week for many years. Secondly, there is considerable evidence that insight in creativity is an activity that develops and matures over the course of a life span (Csikszentmihalyi 1997, Lindauer 1993a, Simonton 1989, 1991a, 1997a), despite particularly strong evidence of peak creativity in the second and third decades of people’s lives, particularly of the genius (Lehman 1953, Lindauer 1993b). This life span development and maturation of creativity is also strong evidence supporting this finding that ‘at each recurrence understanding develops and action is enabled’. Thirdly, there are some creative people who experience images that, in a specific way, enable their creativity. So, for example, Feldman (1989, pp. 281-282) records: “My insight in the shower transformed a dream image into a tool to work with ... it has remained an important part of my mental landscape every since”. In fact this “tool”, according to Feldman (1989, p. 287), enabled him “to produce a virtual torrent of small transformations and to produce them in coherent, organised ways”. Such a “tool to work with” is reminiscent of **Roger’s** description of his insight of a ‘trapped surface’ as a “key”, and is clearly in the words of this finding ‘not an end in itself but rather a fresh beginning’.

(4) In the representational approach of models to the experience of insight, Campbell (1960) used the evolutionary paradigm to explain the growth of knowledge in general, of which creativity and insight are special cases. Csikszentmihalyi and Sawyer (1995, p. 336) have developed this in their systems view of insight, arguing that: “the creative process involves a

recurring circle from person to field to domain and back to the person, paralleling the evolution pattern of variation (person), selection (field), and retention (domain)". Again the cyclical pattern of creativity and insight emerges, confirming this finding. This is particularly clear in the scientific field and methodology, and is evidenced in **Roger's** experience. The case-study approach of great minds, such as Poincaré's experience of insight, illustrates this finding in considerable detail (see Section 2.8.1). Gruber (1995, p. 416) analyses the seven steps in Poincaré's own account of his experience of insight: "three include sudden illumination – on the bus, on the cliff, and in the street. Another is described as freighted with intuitive thought. The remaining three are characterised as conscious and deliberate work". So 'the experience of insight 'keeps recurring; it is not an end in itself but rather a fresh beginning' for conscious and deliberate work; 'at each recurrence understanding develops and action is enabled'.

(5) In the inter-subjective approach of psychotherapy to the experience of insight, "insight has been perceived as the cornerstone of the psychoanalytic theory of structural change" (Crits-Christoph et al. 1993, p. 408). Such insight often involves a conscious awareness of some wishes, defences and compromises and usually "follows a slow, gradual accretion of self-knowledge" (Moore & Fine 1990, p. 99). In the therapeutic process, Todres (2002) finds that particular self-insights were important, but their credibility, meaningfulness and freeing power lay in the developing understanding of the personal narrative that had been forged as their context in the process, as is also evident in **Debbie's** experience. So this approach to the experience of insight provides luminous and cogent practical examples of this finding.

(6) In the body-mind-spirit continuum approach of spirituality to the experience of insight, de Chardin (1959) argues that the experience of insight is increasing and irreversible because "internal vision is essentially the germ of a further vision which includes all the others and carries still further on" (de Chardin 1959, p. 231). This is graphic confirmation of this finding and is illustrated in **Desmond's** unfolding experience and life. An exceptionally clear and powerful example of this finding was the whole TRC process (Krog 1998,2008a,b&c, Tutu 1999). It facilitated an ongoing series of experiences of insight enabling fresh beginnings, understandings and actions (Section 2.11.6.4). The need to restore the interconnectedness of the South African communities which had been torn apart by apartheid is, of course, ongoing. So it is fair to conclude that 'the experience of insight not only occurs, but keeps on recurring; it is not an end in itself but rather a fresh beginning; at each recurrence understanding develops and

action is enabled ... until a new problem, unresolved issue, question or tension emerges, requiring fresh insight’.

(7) It may be helpful, at this stage, to clarify six different ways in which the experience of insight may recur. Firstly, similar insights may recur in slightly different ways, or be ‘seen’ from different angles, to enable the person to ‘get the picture’. This was classically evident in the experience of **Debbie’s** insights, focussing in from different angles on her need and desire to pursue reconciliation with her husband. Secondly, substantially the same insight may recur when the person has no conscious memory of its first occurrence. This was evident in **Roger’s** experience of the ‘trapped surface’; he was able to re-member it or re-imagine it (MUs 12, 14, 17, 27). Thirdly, a person may experience an insight, only to discover later that it has been experienced and articulated by someone else previously. So for example, vivid and life changing as Andrei’s experience of insight into the presence of the living Christ was, it is not a unique experience; millions of people down the ages would claim a similar experience. Fourthly, the same person may, of course, have recurring experiences of a number of completely different insights even in different domains. This is also evident in the experience of **Roger** who specifically refers to his experience of insight in terms of “Twister theory” (MU37) and his playful mathematical construction of “quasi-crystals” (MU41). Fifthly, a well established insight may recur in a secondary way and be ‘seen’ by a person, applying it in a different field. There appear to be elements of this in Begbie’s insights (see Section 2.11.6.3) of the difference between the visual and acoustic space applied to theological understanding. Finally, a single insight may recur in terms of “coherence”, the quality of being logically or aesthetically consistent, with all the separate parts fitting together to form a harmonious or credible whole. The essential component of such coherence is that it all hangs together by virtue of a single insight, which recurs.

In conclusion, this finding is patently evident in the experience of all four research participants. There is, of course, some common sense support for this finding, but the recurrent and cyclical nature of insight goes beyond all the definitions of insight. Existential-phenomenological psychology provides the strongest support for this finding. Cognitive psychology is implicitly consistent with this finding. The approach of creativity makes three important contributions to this finding, namely, that glimpses and flashes of insight occur and recur in the development of creative work, that insight in creativity develops and matures over the course of a life-span and



that images in insight play an enabling role as a ‘tool’ or ‘key’ in creativity. The representational approach of models of insight confirm the cyclical evolutionary pattern confirming this finding. The inter-subjective approach and the approach of spirituality provide luminous and cogent practical examples of this finding.

## CHAPTER 7

### THE DISTINCTIVE VALUE OF THIS RESEARCH

This chapter contains a comprehensive and integrative reflection upon the findings of this thesis. It addresses the value and distinctive contribution of the work. The chapter also offers reflection on the way the researcher is inserted in this quest, how and what he learned through the process, his limits, shortcomings and omissions. This act is done for the sake of balance. It also might be useful to future researchers who want to adopt a similar way of addressing a phenomenon. The structure of this chapter on the distinctive findings of this research, will be undertaken in terms of twenty main themes.

#### **7.1 The Value of the Structure of the Experience of Insight**

The ten findings of this qualitative research go explicitly beyond previous findings. Moreover they depict the coherence of the part-wholes that constitute the whole structure. It is submitted that this emphasis on the integral quality of insight is inherent in the very structure of the experience of insight and constitutes an important and distinctive value of the findings of this research. It also does justice to the holistic and unitive experience of insight and its integrative effect. The evidence gathered emerges from a plethora of walks of life: spirituality in politics, decisions in personal life, mathematical discovery in cosmology and socio-political cartoon commentary. Highlighting insight in this fashion makes a particular contribution to addressing the metaphysical presuppositions about the phenomenon of insight which appear to have been previously ignored, or at least not explored or articulated explicitly in the literature.

#### **7.2 The Value of the Selection of Research Participants**

As described in Section 3.5.5 I invited a variety of people whom I knew had interesting,

significant and different experiences of insight to be research participants. There were three main advantages to this approach which enabled:

- An opportunity to research some substantial experiences of insight which have not previously been investigated academically.
- An ongoing inter-personal relationship of trust within which highly personal and vulnerable experiences could be shared, and lived meanings discovered, thematised and interpreted which facilitated:
  - An empathic understanding of **Desmond's** spirituality, pithy responses and quite condensed thought processes in the interview, as well as becoming accustomed to **Debbie's** unusual and vivid ways of expressing herself.
  - Feedback and discussion of the interview experience, the findings and, for two of the research subjects particularly, a more profound and explicit understanding of their previously implicit lived meanings of their experience of insight.

A diverse group of participants with very different experiences of insight, allowing for:

- A reasonable balance in terms of sex, race, culture and education.
- A variety of contexts and physical conditions, within which insights were experienced (including in prayer on retreat, in therapy and listening to music, in silence crossing the street, while staying with feelings and while mulling over the news).
- A range of forms of insight (including an intuitive sense, a bodily feeling, mental images, cartoons, words, associations, irony and analogy, as well as sudden and more gradual experiences, involving both small, but significant, shifts of awareness and 'giant leaps' of insight).
- A diversity of types of insight (including foresight in justice and peace, self-insight 'inner space' and relational issues, scientific and mathematical insight in cosmology 'outer space' and insight in socio-political commentary).

In Alapack's language, (1972), I am a "preferred researcher". I stand on a platform from which it is possible to stride into many domains in which insight is experienced. But such a springboard also requires care in its use. So I had to bracket my personal presuppositions, and hold in abeyance knowledge gained outside of, and prior to, the data collections. Such a reduction, of course, is never perfect. I wish to express some shortcomings. There were two

particular disadvantages or potential problems of this approach which were:

- I sometimes failed to clarify my dual roles and be rigorously disciplined as researcher, especially in relation to **Debbie**, who had been in psychotherapy with me for sixteen months; the research interview was eighteen months later.
- Having had the privilege of working closely with **Desmond** for a number of years, I became aware of a tendency, in interpreting the interview, to go beyond what was actually revealed, especially in terms of biblical illusions, his sacramental understanding and his condensed account of his experience of his retreat, assuming people were familiar with the structure of retreats.

In order to raise my awareness, clarify my position as researcher and overcome these dangers I wrote two brief reflections: one on the significance and influence of my relationship with **Desmond** for the role of the researcher and the other, on the role and position of the researcher compared to that of the therapist. Both proved helpful.

To repeat, guarding and holding the boundaries was flawed, but it is submitted that this does not entirely vitiate the gains my privileged relationship with these research participants gave me.

### **7.3 The Value of ‘Disposition of Openness’ for Insight**

The term ‘disposition’ makes a significant contribution to the understanding of a person’s awareness of a problem out of which the experience of insight may arise. It is not just an inner subjective experience; it is always and already existentially beyond itself in the world. This is particularly clear in the research findings of the very different experiences of **Desmond** and **Roger**. Without this ‘sense’ or ‘feeling’ or ‘awareness’, no problems would be discovered, much less solved, or even recognised as solved. This ‘disposition of openness’ is required at a cognitive, affective and behavioural level for insight to occur, as the contrasting experiences of **Debbie** and **Roger** illustrate particularly clearly. Insight is not just an intellectual achievement, as it has so often been portrayed in the past, in the Western tradition. Such a ‘disposition of openness’ goes well beyond removing ‘mental blocks’, ‘problem analysis’ or the ‘prepared mind’; it is involved, alert, responsive and empathically attuned to life-world possibilities and significance of meaning. So, it is submitted that the first two research findings and constituent

components required for the experience of insight, are more specific and inclusive in this respect than any of the other approaches to the experience of insight presented in the literature.

#### 7.4 The Value of ‘Confronting and Containing’ for Insight

This research finding, that the problematic raw material for insight needs to be adequately ‘confronted’ and ‘contained’ so that the ‘issue, question or problem can be clarified in a sufficiently reflective way’, does not appear in the literature. Yet it has three significant contributions to make to the understanding of insight. Firstly, it adds value to the ‘disposition of openness’ and clarifies the existential-phenomenological understanding that “insight is letting life-world differences *be* in letting them touch us” (Fuller, 1990, p. 178); because it specifies what is required to let them *be*. It is possible to be ‘open’ to an issue and be overwhelmed by it, because it cannot sufficiently be ‘contained’; it is also possible to be ‘open’ to a problem without ‘confronting’ it at sufficient depth to grapple with it constructively at a structural level in order to ‘restructure’ it. Both of these complications are illustrated in **Debbie’s** experience (MUs 3, 5, 20, 23, 25). Secondly, there is an important way in which both the opposites of ‘confronting’ and ‘containing’ need to be “held”. This is also illustrated in **Debbie’s** experience. She needed to be “held” in therapy (MUs 5, 28), by music and by God (MUs 4, 27, 35) before she could appropriately ‘confront’ the unresolved issues in herself in a sufficiently gentle and ‘reflective way’. It is as if the two requirements of ‘confronting’ and ‘containing’ are like the two hinges of a door; they need to be properly aligned if the door is to ‘open’ easily, without remaining jammed ‘closed’. Thirdly, it sheds light on the relationship between the small, but focussed, shifts of awareness in terms of increasingly understanding an issue and the ‘giant leap’ that takes place in the experience of insight. The third component (Section 6.3) *on its own*, that the “problematic raw material ... be adequately ‘confronted’ and ‘contained’ by the person, so that the issue, question or problem can be clarified in a sufficiently reflective way” is a reasonable definition of what is required for the shifts of awareness in increasingly understanding a problem, and is illustrated in **Roger’s** experience of understanding that he required a “*qualitative* characterisation” (MU11). The same third constituent component *as part of the whole*, describes the vital part of the ‘giant leap’ that occurs in the experience of insight and is illustrated in

**Roger's** experience of insight of the “trapped surface” as the “key” (MU23) which unlocked the problem for him.

## 7.5 The Value of the ‘Moment of Impact’

The ‘impact of the life-world on the self’ is the first of three constituent components worth noting (Section 6.4) at the dynamic core of the experience of insight. The other two being ‘interpreting’ (Section 6.5) and the “Aha!” experience (Section 6.6). The suddenness and unexpectedness in all the other approaches refers to what happens in the “Aha!” moment of insight. No mention is made in the literature of a person being ‘struck’ by anything prior to that moment, despite the fact that in this study it is such a clear characteristic of the very different experiences of all four research participants (Section 6.4). This strange oversight is perhaps a result of focusing too exclusively on the possible unconscious processes and mechanisms of insight, rather than focusing with particular care on the details of the conscious experience of the person. It may also be evidence of a lack of a sophisticated view of consciousness, as Merleau-Ponty (1962) argued so long ago, and is now supported by neuroscience, since “The full and lasting impact of feelings requires consciousness, because only along with the advent of a *sense of self* do feelings become known to the individual having them” (Damasio 2000, p. 36, italics added). The characterisation of the three constituent components at the core of the experience of insight as a passive experience (Section 6.4), as a reflexive awareness and experience (Section 6.5, see also Section 6.11.6) and as an active, self-actualising process and experience (Section 6.6, see also Section 6.11.8), is a finding of this particular research, which is not, as far as I am aware, specifically reflected in the literature.

The significance of this passive ‘moment of impact’, is supremely demonstrated in **Roger's** experience; he had no idea of the content of his insight which was recovered from a lingering feeling of elation. This provides evidence of at least four salient features of the experience of insight, which do not seem to have been clearly identified or brought together in the literature. First, the power of the emergent quality of the gestalt of the experience of insight to persist at some semi-conscious level in a way that was recoverable several hours later. Second, the value not just of a *true* representation, which might be expected in the sciences, but of some *aesthetic*

quality in the experience, causing a feeling of elation, indicating that the idea elegantly solved his problem, even before he knew what that idea was. Third, the significance of the theatre of the body, in which the feeling was experienced, and not solely the theatre of the mind at the back of which ideas had been vaguely buzzing, prior to the moment of silence as **Roger** crossed the road. Fourth, the importance of ‘the feeling of what happens’, to echo Damasio’s (2000) title, because the recovery of a highly sophisticated mathematical discovery with far-reaching cosmological implications, depended entirely on connecting with that lingering feeling in an empathic, as well as an analytical, way.

So **Roger’s** unusual, but highly significant experience, suggests that the experience of insight requires a more richly nuanced description of the different modalities than is generally expressed in the literature. The passive experience of the ‘impact’ appears to have an emergent as well as aesthetic quality, both of which are essential for the reflexive awareness involved in ‘interpreting’. The findings indicate that ‘impact’ and ‘interpreting’ occur in both body and mind interactively and interdependently. On this point, existential phenomenology, in which Merleau-Ponty (1962, p. 236) highlighted the body’s sensitivity to things as ‘reverberating’ to all sounds and ‘vibrating’ to all colours, **Roger’s** experience and neuroscience are at one. Damasio (2000, p. 129) sums it up: “Only a fraction of what goes on mentally is really clean enough and well lit enough to be noticed, and yet it is there, not far at all, and perfectly available”. The significance of this coherence between this qualitative research and neurobiological research will be examined in greater detail in Section 7.17.

## 7.6 The Value of the ‘Moment of Interpreting’

This ‘moment of interpreting’ is very rich and involves all three ecstasies of time. So, for example, **Roger’s** *alreadiness* embraces all his developed mathematical capacities and a life-time of openness, curiosity and wonder at the mystery of being, enabling his ‘interpreting’. His ability to be *present* with his feelings, to value and explore them, together with his sharp analytic ability, also enables his ‘interpreting’. His ability to imagine, to image meaning, to venture *future* possibilities of meaning and to reconstitute the significance of his experience, is enabling of the creative dimension of ‘interpreting’ in insight. So time’s three dimensions, past, present

and future, interpenetrate and vibrate in the ‘moment of interpreting’ like a musical chord (Section 2.6). In fact, the analogy can be taken further. For in tonal music a cadence brings about a harmonic resolution. An example of a perfect cadence takes the form of two tones, each set over a chord as shown below in Figure 12:

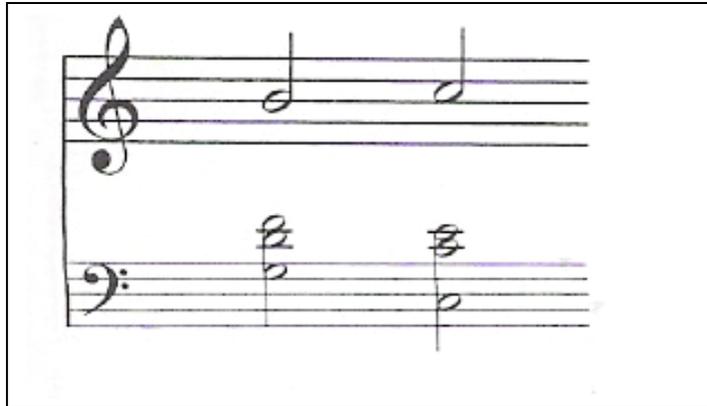


Figure 12 A Perfect Cadence (cited in Begbie 2004:45)

The first tone, as Begbie describes it, “has a ‘pointing beyond’ quality, an incompleteness”, a tension requiring resolution, like an incomplete ‘interpreting’. The second tone provides this resolution and has a “dynamic quality related to the previous tone, this time of attraction, a quality of ‘pulling in’” (Begbie 2000, p. 45) a harmonic resolution, like a satisfying and true ‘interpreting’ in insight, bringing resolution to the issue or problem at a structural level.

**Desmond** experiences a “pressure”, an ‘impact’, a force that brings about a shift in his reflective awareness. In contrast to the other research subjects, he almost immediately ‘interprets’ and understands his experience as an intensely spiritual I-Thou encounter, a sense of being under authority (MU29) to “write” to the Prime Minister to speak truth to power. It is clear that his retreat has physically, mentally and spiritually provided the space for this sudden and distinct transition. Interestingly, he uses the same word, “pressure”, to describe what he experienced and ‘interpreted’ to be from God (MU26), as in his description of the situation under apartheid, “the pressure of repression was beginning to be of such an intensity ... that things had to come to a head” (MU27). Perhaps it is not entirely fanciful to wonder whether one was the echo of the other.

However, in the light of **Roger's** experience described above, and **Debbie's** experience of considerably greater delays between the 'moment of impact' and the 'moment of interpreting', Fuller's (1990, p. 172) assertion that 'impact' and 'interpreting' are "not two separate behaviours but rather two ways of considering the same psychological reality", has to be questioned. The evidence of this research points to the conclusion that they certainly are two closely inter-related constituent components of the dynamic core of the experience of insight, and may be experienced almost simultaneously, as evidenced in **Desmond's** experience, yet they are different in at least three fundamental respects. Firstly, 'impact', 'the influence of the life-world on the self', is a *passive* experience whereas 'interpreting', 'the influence of the self on the life-world', is a *reflexive* experience of awareness. Secondly, they are not necessarily experienced simultaneously; they may become conscious at very different times. Thirdly, as **Debbie's** experience illustrates, there are significant *varieties* in the *reflexive* phase of 'interpreting': from wrestling, examining and questioning herself, to a more relaxed and reflexive mode of listening to music. So it is difficult to see how they could possibly be "two ways of considering the same psychological reality". That they do "determine one another circularly, reciprocally" as Fuller (1990, p. 172) argues appears to be true, but that they do so "simultaneously" is not supported by the evidence of these research findings.

### 7.7 The Value of Insight as 'Key to a Self-Actualising Process'

This is part of the third constituent component that completes the dynamic core of the experience of insight. That the tension of enquiry is released in the "Aha!" experience is well documented and generally agreed, but what emerges quite strongly in this research, yet seems strangely overlooked in the literature, is that the experience of insight is 'key to a self-actualising process; an active experience', in which the insight becomes embodied and enacted. That is why it could be recovered from a bodily feeling by **Roger**. He himself describes it as the "key" which unlocked the whole problem and enabled him, in a 'self-actualising' way, to draw on other knowledge and understanding that he had developed.

The same is true for **Desmond** in a different way. He experienced the "pressure" bodily; its effect was a categorical imperative "you have to do this" (MU16), but that was not all, he was so

inspired and empowered at every level of his being – ‘body, mind and spirit’ – that he felt that the letter “wrote itself”. He “didn’t have to agonise about the words ... they just seemed to come” (MU22). It is a ‘self-actualising process’ which is all the more remarkable in view of the fact that it was his first and most overt political action (MU24).

For **Debbie** listening to, and interacting with, the music verbally and bodily was ‘key to a self-actualising process’ that also became embodied. She says “I’m able to connect with my Self<sup>61</sup> at my feelings level ... not at a level where one normally relates from ... at a deeper level of my Self” (MU36). So it was a ‘self/Self-actualising process’ like “a flower finally getting out of its tight little bud form” (MU37). The authenticity, aesthetic quality, synchronicity and transcendent character of her experiences of insight empowered her to work at reconciliation with her husband, fully aware of the problems: “because it is so real, it helps you to risk it” (MU40).

**Tony** was ‘struck’ by an irony that “obviously fixated my attention immediately” (MU2). It began a ‘self-actualising process’ of drawing **Cartoon 5** (see Section 4.5), triggering further associations, fresh energy, and more allusions and ideas (MUs 9-14). He took considerable “delight” in this process (MU15). So it is submitted that, yet again, his insight is ‘key to a self-actualising process; an active experience’.

## 7.8 The Value of the Quality of ‘Understanding’ in Insight

The quality of understanding in the experience of insight is revealed in this research as critical at three significant ‘moments’: first, in the small but focussed shifts of awareness as part of a preparatory phase before the experience of understanding; secondly, in the ‘interpreting’ or understanding of the ‘impact’ in the ‘moment’ of insight; and thirdly, in the integration of the result of the insight with other knowledge, experience and expertise.

The first significant ‘moment’ is the subject of the first three constituent components of the structure of insight, and is recapitulated in the key words ‘awareness’, disposition of ‘openness’

---

<sup>61</sup> As previously noted in the interview (MU36), she was quite clear that it was “not the little self but the Self God meant us to be”.

and adequately ‘confronted’ and ‘contained’, so that the issue, question or problem can be ‘clarified’. **Desmond’s** responsiveness to the effects of the oppression of apartheid and **Roger’s** recognition that he required a *qualitative* way of characterising what was happening in a black hole, are particularly clear examples of the small but focussed shifts of awareness in the developing quality of understanding which is essential preparation for the experience of insight. The extent of the painful struggle involved in incrementally increasing the level of understanding, as a result of ‘impacts’ of the life-world before insight, is illustrated both in **Debbie’s** and **Desmond’s** experience. The systematic and sustained focus, time and attention to detail required in these shifts of awareness is illustrated both in **Tony’s** and **Roger’s** experience. So this preparatory understanding is a necessary, but not in itself sufficient, condition for the experience of insight. The quality of this understanding is critical, and from the experience of the research participants clearly involves cognitive, affective and behavioural elements.

The second significant ‘moment’ is the subject of the fourth, fifth and sixth constituent components, or substructures, of the structure of insight and is recapitulated in the key words of ‘impact’, ‘interpreting’ and ‘insight’. **Desmond’s** understanding was “almost instantaneous” (MU16) and involved a categorical imperative to write to the Prime Minister straight away; there was no doubt about it, despite the fact that the actual experience of insight “didn’t seem rational at all” (MU15) to him, the message was pellucidly clear and made absolute sense. So the precise nature of understanding is significant: he could not explain it, but he had no problem in understanding it. He clearly sensed it, hence the use of the phrase “empathic understanding of the ‘impact’” in the fifth constituent component of insight. **Debbie** had initially kicked against the pricks of the various ‘impacts’ without coming to a satisfactory understanding of the way forward in relation to her husband. While relaxed and interacting with music most of one night, she surprised herself by ‘interpreting’ at least six ‘impacts’, mainly involving self-insight, which she expressed in an e-mail at 4.19 a.m. The significance of her insight was confirmed two hours later by the synchronicity of timing in hearing the news of the death of her husband’s father (MU35). Yet the e-mail had been headed “Fear and Confusion”. So her experience of insight was clear enough, but the implications of risking working for reconciliation made her feel vulnerable, afraid and confused about how to put it into action. Hers was an embryonic understanding, not a clear and settled one. It needed nurturing and maturing in therapy, but she was able to act on it over a period of months. **Roger’s** subliminal experience of insight was re-

membered as a result of staying with his feelings (MU17); it involved a crucial empathic quality of understanding and reconstruction which provided the ‘key’ to his highly sophisticated mathematical understanding.

The third significant ‘moment’ of understanding results from the integration of the insight with other knowledge, skills and experience. This involves the last four components of the structure of insight with the key words describing this quality of understanding as ‘tested’ and ‘transcending’; it possesses ‘significance’ and enables ‘action’. **Desmond’s** letter to the Prime Minister (Section 5.5.3) embodies an understanding with all these qualities. It is precisely this, humanly speaking, that underlies his experience that the letter “wrote itself”, so he did not have to agonise over the wording; it flowed from his insight and embodied his significant understanding of the impending crisis, far transcending that of the Prime Minister’s. **Debbie**, two years after her initial experience of insight, having renewed their marriage vows, had come to understand her insight as “one of the most sane things” she had ever done (MU37). **Roger’s** ‘trapped surface’ provided the key, unlocking other knowledge and expertise he had developed, to his growing understanding, enabling him to sketch out a proof that same evening. Elsewhere he argues that “the quality of understanding”, which he regards as the crucial distinction between the artificial intelligence of computers and the human ability to understand, “is not something that can ever be encapsulated in a set of rules” (Penrose 1999, p. xx). The phrase ‘empathic understanding’, as an alternative to ‘interpretation’ in this research finding, clarifies that the understanding that results from insight does not emanate from a set of rules, nor purely a cognitive, automatic or mechanistic process, but requires conscious awareness and involves ‘the influence of the self on the life-world’. **Roger** concludes: “Understanding is, after all, what science is all about – and science is a great deal more than mere mindless computation”. (Penrose 2005, p. vii)

So the final quality of understanding is composed of three strands, like those of a rope. The first strand is composed of the small, but significant, focussed shifts of attention in which something new is learned which is of particular value and prepares the way for the possibility of insight. It is evident that this concurs with the first three components of the structure of insight, namely the unresolved issue (Section 5.7.1), the openness required (Section 5.7.2) and the unresolved issue ‘confronted’ and ‘contained’ (Section 5.7.3).

The second intertwined strand is the emergence of something totally new and of indispensable value, expressed in the insight itself. Clearly this is composed of the next three structures of the experience of insight, namely the ‘impact’, the influence of the life-world on the self: a passive experience (Section 5.7.4), the ‘interpretation’, the influence of the self on the life-world: a reflexive experience (Section 5.7.5) and the “Aha!” experience, the key to a self-actualising process: an active experience (Section 5.7.6).

The third intertwined strand, which reveals the final strength and quality of the understanding, is dependent upon the application of the insight and its integration with other knowledge, skills and experience. This comprises the changed perspective, transcending the usual or dominant way of seeing things (Section 5.7.7), the self-authenticating experience which is historically validated or rejected (Section 5.7.8), the new understanding which possesses a significance greater than its origin and a relevance wider than its original application (Section 5.7.9) and finally the recurring quality of insight in which understanding continues to develop and action is enabled (Section 5.7.10).

## 7.9 The Value of Insight as ‘Self-Authenticating’

**Roger’s** experience of elation indicated that, at a subliminal level, he realised that this was a good idea, even before he knew what the idea was (MU33). This raised the possibility that the ‘self-authenticating’ quality of insight may be so integral to the whole experience of insight that it may precede the conscious “Aha!” experience when its full value is recognised (see Section 6.8). So it was determined to examine this possibility in the very different experiences of the research participants. The findings of this investigation reveal four probable strands in this integral ‘self-authenticating’ experience of insight:

First, the sudden and unexpected nature of the experience of insight seems to contribute not only to drawing attention to what is happening, but marking it as significant and possibly authentic.

**Desmond’s** experience came as a “bolt from the blue” (MU25), “[i]t came almost instantaneously” (MU16). For **Debbie**, it was “not all that suddenly” (MU33), but it was

completely unexpected and it all happened within a few hours on a single night. **Roger** experienced something completely unexpected in a moment of silence as he crossed a road (MUs 14, 31) and **Tony's** attention was “immediately” caught by an irony (MU2).

Second, a distinctly existential sense of the clarity and quality of the experience is recognised as part of the authenticity of the experience. **Desmond** had a clear sense of “pressure” (MU14) which had an unequivocal quality about it, in contrast to his more usual experience in which he is not sure about whether it is a distracting thought or God speaking to him (MU26). **Debbie** was “struck” by a number of experiences characterised by a sense of clarity, intensity and aesthetic quality that denoted authenticity (MUs 4, 25). **Roger's** experience was initially almost imperceptible, there was no sense of “pressure”, he was not “struck”, it was as light as a feather – an “odd feeling of elation that [he] could not account for” (MU15) as well as feeling “a little bit disturbed” (MU16). He had no conscious memory of what happened. **Tony's** experience of the irony was that it “fixated” his attention (MU2).

Third, the direct effect of the experience of insight is part of this integral experience of authenticity. **Desmond** experienced it as a categorical imperative (MU16). Not only was there no doubt about it (MU26), there was also a complete lack of self-doubt (MU19). **Debbie's** cumulative experiences had the effect of inducing her to want to work at recommitting to her marriage (MUs 29, 31, 37). **Roger's** experience had the effect of prompting him consider his feelings and review his day in an analytical way (MU16, 17). **Tony** experienced a whole series of associations flowing from the irony which had “fixated” his attention (MUs 3-15).

Fourth, there is a confirmation which arises out of enacting the insight which is ‘self-authenticating’. For **Desmond**, it was the remarkable experience that the “letter wrote itself” (MU22), he did not have to agonise over the wording, despite the fact that he was writing to the Prime Minister. For **Debbie**, it was the transcendent experience of synchronicity over the timing of hearing about the death of her husband's father (MU35). For **Roger**, it was the image/idea of the ‘trapped surface’ which was the “key” that unlocked the whole puzzle (MUs18, 23) and enabled him later that same day to sketch out a proof (MU20). **Tony** experienced and expressed his “delight” in using comic devices of speed (MU15) in highlighting the contrast between the 4x4 carrying arms and the broken down land delivery van.

So it is submitted that this ‘self-authenticating’ quality of the experience of insight is integral to the whole experience rather than simply the climax or consequence of the experience.

## 7.10 The Value of the ‘Recurrence’ of Insight

Evidence has been adduced to substantiate this finding of the recurring quality or nature of insight (Section 6.10) which is compatible with, but goes beyond, cursory references to the recurring phenomena of insight. What is distinctive about this research is the variety of ways in which insight recurs, as evidenced in the experience of the four research participants. There appear to be at least six different ways in which the experience of insight may not only occur but recur:

First, something that originated as an insight, but is received by a person in a second-hand manner, may suddenly become crystal clear and be re-experienced as an insight in a more conscious, complete, or practical and profound way. This seems to be true of **Debbie’s** experience when she noticed a book entitled *All Truth is God’s Truth* on my bookshelves. Initially, she was struck by that arresting early Christian insight and would probably have regarded it as true in a general sense; only later did she experience the insight that she was only seeing her truth as being real in relation to her husband (MU10).

Second, substantially the same insight may recur in slightly different ways, or to be ‘seen’ from different angles, to enable the person to ‘get the picture’. This was classically evident again in the experience of **Debbie’s** insights. She lists no less than six different experiences of insight in her e-mail and includes a number of others in the interview, which all point in different ways, to her desire to seek reconciliation with her husband.

Third, again, substantially the same insight may recur when the person has no conscious memory of its first occurrence. This was evident in **Roger’s** experience of the ‘trapped surface’; he was able to re-member it or re-imagine it (MUs12, 14, 17, 27).

Fourth, the same person may, of course, have recurring experiences of a number of completely different insights even in different domains. This is evident in the experience of **Roger** who specifically refers to his experience of insight in terms of “Twister theory” (MU37) and his playful mathematical construction of “quasi-crystals” (MU41).

Fifth, a well established insight may recur in a secondary or analagous way and be applied to a different field. There appear to be elements of this in Begbie’s insights, see Section 2.11.6.3, of the difference between the visual and acoustic space applied to theological understanding. Finally, a single insight may recur in terms of “coherence”, the quality of being logically or aesthetically consistent, with all the separate parts fitting together to form a harmonious or credible whole; the essential component of such coherence is that it all hangs together by virtue of a single insight, which recurs. An example of this occurs in Krog’s (2008d, p. 12) argument that the single crucial insight underlying “all three of the innovations”, in the structuring of the South African TRC process, “can be traced back to attempts to restore the inter-connectedness of a community”. This inter-connectedness-towards-wholeness is the essence of *ubuntu* ( see Section 2.11.6.4).

## 7.11 The Value of the ‘Experience’ and the ‘Fruit of Insight’

Despite the invitation and selection of research participants known to me, it was not anticipated that, in addition to the interview material, the participants would each express the creative product of his or her insight and in very different ways. This provides the opportunity for another perspective not afforded in most research approaches to insight, namely the means to examine not only the experience, but also the fruit and the fecundity of the insight.

So **Desmond** not only describes his experience of how “the letter wrote itself” (MU22), but there is the opportunity to examine the quality of the letter itself. **Debbie** not only reflects subsequently on her experiences, but provides contemporaneous written evidence. **Roger** not only records recovering his insight from a feeling, but furnishes the scientific proof. **Tony** not only traces his experience in verbal form, but presents the visual evidence of that experience in cartoon form. Each will be examined in turn.

First, **Desmond** shrewdly but respectfully addressed the authoritarian Afrikaner leader as a family man: “I am writing to you, Sir, because I know you to be a loving and caring father” (Appendix B). He uses the phrase “I am writing to you, Sir ...” no less than ten times. As Du Boulay (1988:104) points out: “It is a remarkable letter, heartfelt yet statesmanlike, direct yet never failing to be tactful and courteous, eloquent, informed and precise in its suggestions”. The

irony was that it was so articulate that the Prime Minister concluded that it could not have been written by a Black man and that **Desmond** was being used politically by the White opposition. He simply could not credit that this letter was the fruit of an insight that **Desmond** had experienced in retreat on his own, as he claimed. So it is not surprising that when **Desmond** asked for permission to publish the reply, he received a curt rejection; it would have been all too revealing of the racist attitudes of the Apartheid ideology. The ‘nightmare’ of his insight was to become reality sooner and more tragically than even he had feared.

Second, the distinctive value of **Debbie’s** e-mail is reflected in the fact that only contemporaneous notes taken by a witness may be used in the witness box in court. The immediacy of her e-mail, describing her experience of insight during that night and into the early hours of the morning and sent at 4.19 a.m., precludes subsequent rationalisations and elaborations. As such it provides valuable evidence and significant first fruits of her insights, in which her truth and vulnerability is palpable. This enables a clear overall picture as well as details of small but significant shifts in her experience. For example, it is possible to examine the significance of her transformative experience of listening to music most of one night. Begbie (2000, p. 13) sometimes says to his students: “There is more to music than meets the ear”. A person’s social and cultural embeddedness, as well as physical, physiological and neurological make-up profoundly mediates the experience of sound. In addition, and this is crucial for **Debbie’s** experience, music is able to ‘express’ emotion and feelings in remarkably powerful ways. Scruton (1997, pp. 346-364) challenges the view that emotions are located solely in some inner or ‘subjective’ life, which are externalised through music. He argues that the expression of an emotion can enable feeling, and this is one of the ways in which a person comes to self awareness and maturity. Our emotional response to musical sounds, according to Scruton, is fundamentally a ‘sympathetic response’. It is a kind of ‘latent dancing’ or subliminal ‘moving with’ the sounds. So the music invites us into its ‘gravitational field’, draws our feelings along with it, and so leads us to open up to feelings we would not otherwise experience. In this way, we can be emotionally exercised, enriched and educated. This ‘sympathetic response’ is vividly illustrated in her experience. “The music is just calm and it’s almost a meditative state ... you can centre deep down within yourself and go to a place where you don’t normally go” (MU25). However, she also reacts antipathetically to both words and music: “I even think ‘no I wouldn’t

put it that way’, and put my own words to it ... the way I would feel the music must be” (MU25). So perhaps Scruton’s view is not the last word on the subject.

Shepherd & Wicke (1997, p. 127) argue that:

The human experience of sound involves, in addition to the sympathetic vibration of the ear drums, the sympathetic resonators of the body. Sound ... can thus be *felt* in addition to being heard ... Sound ... enters the body and is in the body.

So as Begbie (2000, p.27) points out: “Even a deaf person – for example, the percussionist Evelyn Glennie – can perform highly intricate music by sensing floor vibrations through her feet”. Perhaps this feeling of the music in the sympathetic resonators of her body is what penetrated **Debbie’s** ‘deafness’ and enabled her to feel, respond to and resonate with what had previously ‘impacted’ her but had not been ‘interpreted’, thus facilitating her experiences of insight that night as detailed in her e-mail. As in everything, from advertisements to films, music is the ‘hidden persuader’ *par excellence*.

Third, the particular value of **Roger’s** proof sketched on the blackboard on the day of his insight, is that it expressed the fruit of his insight almost immediately. His use of the word “sketch” indicates that it was done quite quickly, that it contained a number of images or pictures for which at this stage he did not have the necessary words or formulae, and that it was not yet formulated in a completely rigorous way (MU20). A few months later the proof was published (Penrose 1965). This proof, the fruit of his insight, is a good example of mathematical rigour, succinctness and elegance.

The distinctive value of the fruit of **Tony’s** insight is revealed in the socio political Cartoon **5**. His work was examined, in Chapter **4**, under three themes: the verbal text, the visual text and the context; together they form a richly layered account of his work. What is striking is that virtually all the significant points he makes about his experience of insight from no less than nine cartoons (see Appendix **A**) are illustrated in this single cartoon (Cartoon **5**, below).

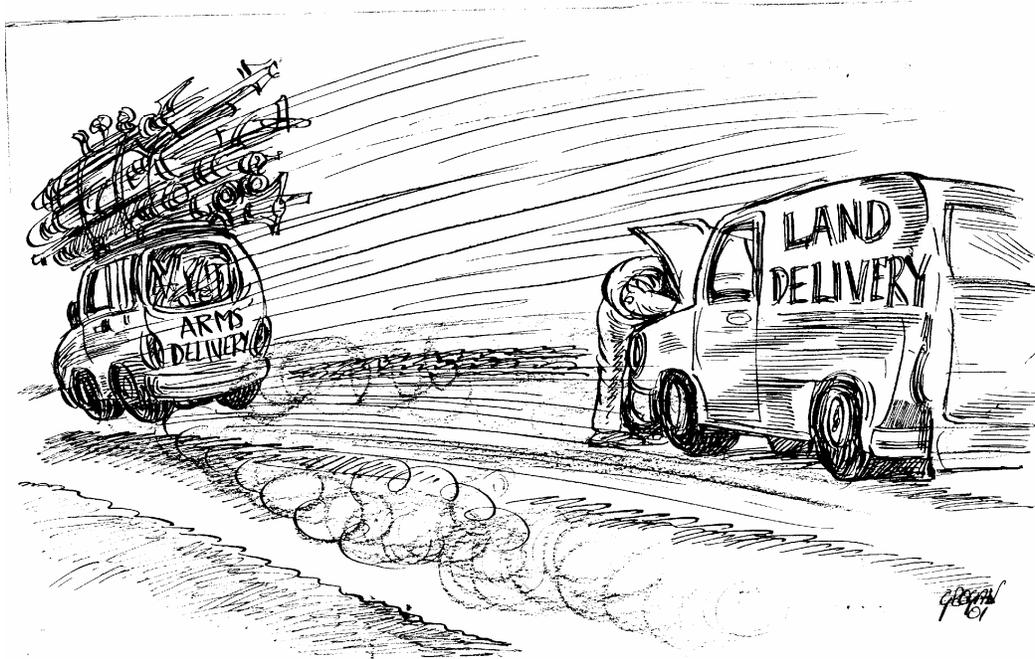


Figure 12. Tony Grogan's Cartoon 5

Six points are particularly noteworthy:

(1) Tony is struck by the 'impact' of a "rich irony" which grabs his attention (MU2) and starts a process of associations (MU18) around land issues.

(2) It is the *passionate opposition* to injustice and corruption that generates the creative energy for the cartoon. So the creative process of drawing the cartoon does not begin with the land delivery van which **Tony** has used before, but with the spark of energy and 'interpreting', associated with the new thought of Tony Yengeni's 4x4 (MUs 13-14).

(3) This *all-or-nothing statement* about the speed of arms delivery overtaking the delivery of land which is at a standstill, and in fact has broken down; this contrast provokes reactions and raises questions ... Why has the government been so speedy in the delivery of arms?

(4) There is a degree of subtlety so that Cartoon 5 can be *read on different levels*. As **Tony** muses: "An appropriate military vehicle would be a ... Caspir or a Tank or something like that ... no, wait a bit, a 4x4 is far more appropriate, because it brings another allusion into the whole thing" (MU14); in fact, it brings in, as illustrated, multiple allusions.

(5) There is the use of the *English language* with all the nuances, ambiguity, opportunity for punning and so on which enables the concrete *delivery van* to become a *vehicle for the delivery* of services as well as more abstract ideas (MU11).

(6) Tony always tries to bring in an element of humour (MU12), so he takes delight in using comic devices of speed for the 4x4 to heighten the contrast with the lonely figure representing the government, tinkering with the engine of the land delivery truck to try to get it started (MU15).

## 7.12 The Value of the Experience of Insight in the ‘Unfolding Context’ of Life

A further outcome of a relationship with the research participants is the possibility of investigating and evaluating the significance of the particular experience of insight in the unfolding context of their lives. The genesis of this further perspective is already latent in each interview. **Desmond** acknowledges that his experience of insight led to possibly his first, and certainly his most overt, political action (MU24). **Debbie** emphatically describes her experience as a turning point in her life “like ... [pause] ... a flower getting out of its tight little bud-form ... it was the [emphasised] turning point” (MU37). **Roger** refers to a number of other insights (MUs25, 37, 38, 41) but this experience was not only a most unusual one, it was significantly his first experience of insight leading to a published discovery. **Tony** makes his living as an artist and cartoonist and reveals that his creativity was intensified by his passionate feelings about the inhumanity and injustice of the apartheid oppression.

In the light of the ongoing relationship and appreciation, particularly expressed by two of the research subjects, for the opportunity to learn more about the significance of their experience of insight from the research process, my initial reaction was to extend this research. However, on reflection, it was decided that it required a separate investigation to do the topic justice, with the key research question for the interview being: “How do you assess the significance of your experience of insight in the subsequent development of your life and work?” That question, put to all four research participants, might make an interesting follow-up to the current research and perhaps provide the subject matter for an appropriate journal article.

### 7.13 The Value of the ‘Relationship Between Sight and Insight’

The fact that sight is the most common metaphor for insight is universally acknowledged, but the precise *quality* of seeing in this context, beyond coherence, certainty and pattern recognition, remains remarkably unexplored in the literature in this context, despite the emerging academic discipline of Visual Studies as mentioned in Section 6.3(4). Pattison’s (2007) argument for a more intimate way of perceiving through ‘haptic’ or touching sight is a powerful critique of the prevailing Cartesian myth of a detached, disembodied and unitary way of seeing things.

Perceiving is as much about acting on the environment as it is about receiving signals from it. As Damasio expresses it: “When you see, you do not just see: *you feel you are seeing something with your eyes*” (Damasio 2006, p. 232). So haptic vision enlivens, contains *poesia* and creates a yielding kind of knowing, which can lead to compassionate and empathic involvement in, and understanding of, the subject matter.

Pattison (2007) contends that the use of words like ‘see’ to denote ‘understand’ presents a particular difficulty, for not only does it bias the language of visualities towards the Cartesian myth, but it also makes it very difficult to understand any particular dimension of sight on its own. He is surely right when he points out how Western academics are bewitched by the complexity in their scopic regime. One has only to think of the overcrowding of data in so many PowerPoint presentations: “I see what you mean” was never more true and less digestible. Another example would be the tendency of so many people to studiously read the labels at an exhibition, while giving only a cursory glance at the masterpieces themselves.

If the idea that seeing might involve in some sense touching with the eyes is a powerful one, even more powerful is the idea of being touched by the object of our gaze, and Pattison conjures up the fury that must have motivated the attack on Michaelangelo’s *Pieta* in Rome. The shadow side has to be recognised: haptic power is also open to abuse. However, it is precisely because it is so powerful and “all images are polysemic” (Pattison 2007, p. 80), that the connection between haptic sight and insight may well not just be metaphorical, but be closer than previously recognised in the literature, for haptic sight is sentient and notes even small alterations in its own attitude. In terms of this research, it is clear that haptic sight, whether it be witnessing suffering under apartheid as in **Desmond’s** experience, or suddenly focusing on a significant book title as in **Debbie’s** experience, or mental images as in **Roger’s** experience, or visual images as in

**Tony's** experience, can evoke profound feelings. It is at the very least a significant part of the essential preparation for, if not an actual precursor of, insight; involving several small but significant shifts of awareness in increasingly understanding a problem, before the 'giant leap' in insight in terms of what is required to solve the problem.

### **7.14 The Value of the 'Relationship Between Foresight and Insight'**

There are clear elements of foresight in **Desmonds's** experience of insight, although he is insistent on setting three limits. First, that he was not the only one who was "deeply concerned and very apprehensive ... aware of how people were feeling about 'the system'" (MU3). Second, that he was not primarily focused on anticipating the details of a particular outcome, but was aware of precipitating factors. Third, that those precipitating factors could be averted by meaning signs of change, as is frequently typical of biblical prophets. As it is expressed in the official biography:

Tutu may have been prescient in predicting an explosion; but when it came, a few blocks up the hill from his home in Soweto, its nature took him – and the rest of Soweto's parents – by surprise ... the rebellion started in the Phenfeni Junior Secondary School. (Allen 2006, p. 155-156)

This is in sharp contrast to the earliest record, by one of Winston Churchill's contemporaries at school, of Churchill (aged 16), saying:

I see further ahead than you do. I see into the future. This country will be subjected somehow to a tremendous invasion, by what means I do not know, but I tell you I shall be in command of the defences of London and I shall save London and England from disaster (Gilbert1994, p. 215).

Churchill's statement is a truly remarkable foresight of his role in the Second World War, and is not an isolated example. It is matched by his long held conviction that he would die on the same day as his father. Despite being in a coma for ten days following a massive stroke, he did die on the morning of that very day.

In contrast, **Desmond** makes no claim to see into the future nor is he centre-stage, or fatalistic (MU28). He writes to the Prime Minister (Appendix **B**):

I am writing to you, Sir, because I have a growing nightmarish fear than unless something drastic is done very soon, then bloodshed and violence are going to happen in South Africa almost inevitably. A people can take only so much and no more .... A people made desperate by despair, injustice and oppression will use desperate means. I am frightened, dreadfully frightened, that we may soon reach a point of no return, when events will generate a momentum of their own, when nothing will stop their reaching a bloody denouement. (For a more detailed discussion see Section **5.3.3**).

In addition, he clearly articulates three requirements for peaceful change. Sadly he was, at the time, a prophetic voice crying in the wilderness. His voice was drowned out by someone closer to the seat of power. Manie Mulder, Chairperson of the West Rand Administration Board, made a statement within a few days of **Desmond's** letter, that reflected the ignorance and arrogance of the White administration: "The broad masses of Soweto are perfectly content, perfectly happy. Black-White relationships at present are as healthy as can be. There is no danger whatever of a blow-up in Soweto" (Bonner & Segal 1998, p. 78). Despite the fact that **Desmond's** prophetic warning was not heeded, his experience of insight was a defining moment in his life and ministry; the subsequent fruit and fecundity of his insight played a significant role in his developing influence in South Africa, culminating in the peaceful transition of power and his inspirational role as Chair of the Truth and Reconciliation Commission.

### **7.15 The Value of the 'Relationship Between Humour and Insight'**

**Desmond's** self-awareness is frequently revealed in his humour; his tears and laughter flow easily (MU12). He recognises the "pressure" of his experience in terms of submitting to a higher divine authority, but is aware that it may appear to others as an arrogant or presumptuous initiative of his own. His sense of humour, revealed in "at least **I** [emphasised] believed that! [laughing]" (MU29), enables him to cope with the paradox between the outward appearance and

the inner reality of his experience of insight. He delights in the incongruities and contradictions of ‘working’ on the letter during his retreat with guffaws of laughter (MU17). Despite his age and frailty, he cannot resist his parting shot about God not being able to cope yet with him in heaven!

**Debbie**, as a result of her self-insight, becomes less harsh on her husband who had been “putting his foot in it by just breathing” (MU3) as well as herself, and so is able to laugh at her self-righteousness (MU22). She is aware of the two different parts of herself in which she write from her Self to her self (MU36). In chuckling at the proper “Mrs Brown person”, who does “all the right things” (MU31), she even wishes she could be a bit more “sluttish” although she is “not quite sure [she] can pull it off” (MU43). Sometimes her laughter releases tension and excitement (MU32). Her humour often underlies her vivid phrases revealing her self-awareness; such as her new-found freedom as “a flower finally getting out of its tight little bud form” (MU37), and a wry reference to her vulnerability involved in living out her insight as “going out on the ocean with one oar” (MU42).

**Roger’s** humour varies from a delightful self-deprecating laughter over his forgetfulness (MU12) to chuckling happily (MUs 13, 15, 16, 40, 42) and laughing without inhibition (MU44). There are at least thirteen points in the interview at which his humour and infectious enthusiasm infuses his account of his experience of insight. **Roger’s** humour has a playful aspect to it, which is not, of course, confined to verbal expression; it is often expressed in playful behaviour and he specifically refers to his “playful mathematical construction” of two shapes that tile the plane in the manner of Escher tessellation. He says he “discovered” them in the course of this playfulness – rather as one ‘discovers’ a joke – without any expectation that they would be useful “to everyone’s astonishment, particularly mine [laughing] it turned out that three-dimensional forms of these tiles may underlie a strange new kind of matter ... now one of the most active research areas in crystallography! [chuckling]” (MU41). So this playful generative activity ‘outside the box’ can enable new insights and discoveries.

**Tony** depicts the Soweto uprising, the subject of **Desmond’s** insight, as a huge black giant rousing from sleep (see Cartoon 1, Appendix A). He explains that in order to show respect he has drawn this powerful giant in classical lines in contrast to the rather comical little Nationalist

Government ministers being shaken about on the surface of the earth. As Cartoon 5 (in Section 4.5) reveals, his style of cartoon leads towards the lampoon rather than the satirical. He explicitly states “I always try to think of something amusing” (MU12), and aims to “set up concrete images in people’s minds” (Appendix A). So he connects PW Botha wagging his finger with the fall of the rock in Namibia, known as the ‘The Finger of God’ (Cartoon 2 Appendix A), and in making subtle humorous allusions enables people to read it in different ways. Clearly his passion about the injustices of apartheid (Section 4.8) is a great source of creative energy and fires his imagination and sharpens his wit and insight. He also exploits the subtle nuances and ambiguities of the English language in, for example, “That’s their funeral” as in Cartoon 9 (Appendix A).

So the experience of the four research participants reveals that a sense of humour and laughter, related to their experience of insight, expresses a sense of incongruities revealed, as well as conflicts resolved; like charity, it has to begin at home if it is to be genuine. In chuckling, as they all do in different ways, the participants sit lightly to themselves. A heavy seriousness is fatal to self-insight and may be inimical to other forms of insight, as GK Chesterton (1943, pp. 204-205) remarked “solemnity flows out of men naturally; but laughter is a leap. It is easy to be heavy: hard to be light. Satan fell by the force of gravity”. Laughter, by contrast, may be a sign of a “leap”, a raised consciousness, a result of an insight.

A joke has often been used as a metaphor for insight. Either you ‘see it’ or you do not (Dominowski & Dallob 1995, p. 37). So, as Gick and Lockhart (1995, p. 203) put it: “Humour is found in the resolution of the incongruity” between the expectation and the punchline, because the joke invokes a dominant but incorrect representation.

In the light of the evidence revealed above, the question had to be asked: is humour more than a metaphor for insight? The conclusion drawn was that humour cannot be regarded as an *essential* component of the structure of insight, but clearly it can, in many cases, play a valuable role in facilitating insight precisely because it shares the same characteristic as insight in terms of ‘transcending the usual or dominant way of seeing things’ (Section 6.7).

## 7.16 The Value of the ‘Philosophical Understanding of Intuition for Insight’

In the course of examining the experience of insight as self-authenticating, in Section 6.8 (1), evidence was adduced from the experience of all four research participants, distinguishing classical intuition as a holistic experience that integrates diverse sources of information and providing the *basis* upon which inferences and deductions can be drawn. It was suggested that this appears to challenge the conceptual framework of intuition in experimental and cognitive psychology. It is now appropriate to argue that case and demonstrate the significance and value of the philosophical understanding of intuition for insight.

The conceptual framework of intuition and experimental and cognitive psychology may be characterised by three particular attributes: first, intuition is equated with *unconscious* processing, as a facet of implicit cognition (e.g. Dorfman, Shames & Kihlstrom 1996, Reber 1989, 1993); second, intuition is presented as an *inferential* process operating below the threshold of awareness (e.g. Hinton 1990, Ubel & Lowenstein 1997) and third, intuition is associated with thought processes in the dual system that are *not rational* in the traditional sense (e.g. Epstein, Lipson, Hammond 1996, Holstein & Huh 1992, Sloman 1996). In contrast, the evidence of the experience of insight of all four research participants is entirely consistent with the philosophical understanding of intuition expressed by Osbeck (1999, p. 244) that:

Intuition provides the underpinning of thought and experience, such that reasoning could not and does not occur independently ... it is not ‘employed’ in merely a particular sort of task; it establishes the means by which both creative and analytic activity are possible.

This clearly differs from experimental psychology’s portrayal of intuition as judgments made without awareness of inferences that support them (e.g. Hinton 1990, Kleinmütz 1990). Osbeck (1999, p. 238) fairly asserts: “The notion of a judgement based on inference, albeit inference below the threshold of consciousness, is a very different notion from that which can have *no* grounds even in principle”. The *non-inferential underpinning* of ‘thought and experience’ as well as ‘both creative and analytic activity’ is particularly important and is regarded as adding value to this study. It emerged very clearly from the very different ‘self-authenticating experiences’ of all four research participants.

## 7.17 The Value of ‘Relating the Qualitative Research to Neurobiological Research’

Curiously, the mention of feelings still often conjures up an image of self-indulgent naval gazing, or disregard for world issues like justice and peace, and a tolerance for relaxed standards of intellectual performance. This is precisely the opposite of what is revealed about the significance of feelings in this research on the experience of insight. The experience of all four research participants strongly suggests that the strengthening of rationality and the valuing of insight requires that greater consideration and discernment be given to the vulnerability of the world within, as well as the significance of feelings and shifts of awareness.

In the light of this finding, it appeared important to investigate the findings of neurobiological research. It is recognised that a comparison between qualitative human scientific research and natural scientific neurobiological research may not be common practice, but it is hoped that it may add a further distinctive value to this study of insight. So the evidence of this research will be investigated under five main themes, arising from the research and engaging in dialogue with the neurobiological conclusions of Damasio.

(1) *It is natural in everyday language to speak of different levels of feeling, awareness, consciousness and attention in insight.* The evidence of this research in the experience of all four participants is that both consciousness and attention occur at different levels and are related; they appear to influence one another in an upward spiral, resulting in greater alertness, sharper focus and higher quality of image processing.

**Desmond** experienced a shift in awareness “... it seemed like a pressure from God” (MU14); it came suddenly as a “bolt from the blue” (MU25), and grabbed his attention as a categorical imperative. **Debbie** referred frequently to operating at different levels (MUs 33, 36): in terms of relating to her husband and daughter (MUs 18, 30, 31, 32, 39), in terms of protecting herself (MUs 20, 22), and in terms of lower defences as she is interacting with music (MUs 25, 27).

**Roger** said “Curiously I *did* [emphasised] actually forget my trapped surface idea, but that is not at the level I mean ... I am supposing that if it had not had some aesthetic quality to it, it would not have reached any appreciable level of consciousness at all” (MU27). He also mentioned a

whole range of things going on in his head, from vaguely thinking (MU13), to conjuring things up (MU19) and, to inspiration and insight (MU25) involving pictorial images and models (MU39). Silence seems to be a pre-requisite for his most important thinking (MUs 31, 37, 42). **Tony** noticed an irony which immediately “fixated” his attention (MU2). Significantly, Damasio (2000, p. 56) uses the same term ‘impact’, in this connection, that has been used throughout this study: “Consciousness allows feelings to be known and thus promotes the impact of emotion internally, allows emotion to permeate the thought processes through the agency of feeling”.

(2) *It remains important to guard against the dangers of incipient dualism and reductionism.*

The evidence of this research, in the experience of all four participants, is that, without the interaction of brain and body as an indissociable organism, there would be no insight to investigate. This is entirely consistent with Damasio’s (2006, p. xxv) statement that without the interaction of brain and body there would be “no suffering or bliss, no longing or mercy, no tragedy or glory in the human condition”. The experience of insight cannot be reduced to the mechanism of a disembodied mind, yet paradoxically, as Damasio (2006, p. 250) observes, “many cognitive scientists who believe they can investigate the mind without recourse to neurobiology would not consider themselves dualists”. The critical error in what is perhaps the most widely known phrase in philosophy, namely Descartes’ dictum (1637/1970, p. 101): “I think therefore I am”, is the separation of reason from emotion, as if they did not mix any more than oil and water. Taken literally: “It suggests that thinking and awareness of thinking are the real substrates of being” (Damasio 2006, p. 248). This is precisely the opposite of Damasio’s argument in *Descartes’ Error* (2006, p. 248) that: “in the beginning it was being and only later was it thinking”. The result of Descartes’ dualism led to “the separation of the most refined operations of the mind from the structure and operation of a biological organism” (Damasio 2006, p. 250), which accounts for the widespread insistence that rational processing must be unencumbered by passion, whereas Damasio (2006, p. xxiii) categorically states that: “the lower orders of our organism are in the loop of high reason”. So he contends that feelings are neither intangible nor elusive: “Contrary to traditional scientific opinion, feelings are just as cognitive as other percepts” (Damasio 2006, p. xxv), such as hearing, sight, touch, taste and smell. So **Desmond**’s concern that his sense of ‘pressure’ “doesn’t seem rational at all” (MU15) probably comes from an traditional scientific view. In stark contrast, **Roger**, as a scientist working on the

frontiers of discovery, is delighted that his insight can be recovered from a lingering feeling of elation.

(3) *It is critical to recognise that the body provides a ground reference for the mind.* The evidence of this research, reflected in the experience of all four participants, goes beyond the previous finding of an indissociable organism and reveals that the body provides a ground reference for the mind. So, for example, **Desmond** first feels the ‘impact’ of a bodily sense of “pressure”, and then ‘interprets’ it as a categorical imperative from God to write to the Prime Minister. On the basis of a study of anosognocics, who report irrationally about their motor defects and inappropriately about their feelings related to their state of health, Damasio (2006, p. 154) concludes: “what does not come naturally and automatically through the primacy of feeling cannot be maintained in the mind”. Clearly, in **Roger’s** experience, it was precisely this primacy of feeling that enabled his subliminal experience of insight to be maintained and recovered. In Damasio’s (2006, p. 159) delightful phrase: “feelings let us *mind the body*”. He argues that feelings have a truly privileged status; because of their inextricable ties to the body, they come first in development and retain a primacy that subtly pervades our mental life. Since the brain is the “body’s captive audience”, feelings are first among equals. Damasio (2006, pp.163-164) specifically states: “The cognitive mode which accompanies a feeling of elation”, such as **Roger’s**, “permits the rapid generation of multiple images such that the associative process is richer and associations are made to a larger variety of cues available in the images under scrutiny”. (The extreme of this mode is mania.) It is hypothesised that this helped **Roger** recover, or even reconstitute, his insight. On the other hand, the cognitive mode which accompanies sadness, such as **Debbie’s**, is “characterised by slowness or image evocation, poor association in response to fewer clues, narrower and less efficient inferences, over-concentration on the same images, usually those which maintain the negative emotional response” (Damasio 2006, p. 164). (The extreme of this mode is depression.) It is hypothesised that this delayed **Debbie** in coming to her insights.

(4) *It is impossible to be aware of all that goes on mentally.* The evidence of this research is that, in insight, the key components may unfold in the body and mind very rapidly and sometimes virtually simultaneously, as in **Desmond’s** experience. So it is perhaps not surprising that **Roger** “forgot” his insight, because it can happen so quickly that not all thoughts gain salience. According to Damasio (2000, p. 126-127): “neurons get excited and fire

themselves away in just a few milliseconds, while the events of which we are conscious in our minds occur in the order of many tens, hundreds, and thousands of milliseconds”. As a result, according to Damasio (2000, p. 129): “Only a fraction of what goes on mentally is really clean enough and well lit enough to be noticed, and yet it is there, not far at all, and perhaps available if only you try”. This is classically illustrated in **Roger’s** experience. Damasio (2000 p. 129) adds: “curiously one’s context does influence how much one notices in the fringes of the mind”. This context was ‘crossing the street’ in **Roger’s** experience, ‘on the step of the bus’ in Poincaré’s experience and for Darwin it was ‘the very spot on the road’, as explored in Section **6.4 (4)**. When a good or bad outcome connected with this process comes to mind, however fleetingly or subliminally, as in the experience of all four research participants, a ‘gut feeling’ is experienced. Damasio (2006) gave this phenomenon the technical term, the *somatic marker* hypothesis, arguing that such markers in the body increase the accuracy and efficiency of the process, by signalling an alarm or a celebratory bell. So somatic markers assist deliberation by highlighting some options as dangerous or favourable, reducing the need for sifting a wealth of detail. It is significant that they mark both cognitive and emotional material, and may also operate outside consciousness. Damasio (2006, p. 188) concludes that “this covert mechanism would be the source of what we call intuition”. Such somatic markers are clearly a particularly important feature in the experiences of **Desmond** and **Roger**, but are clearly also present in the experiences of **Debbie** and **Tony**.

(5) *Finally, it is vital to recognise the significance of the sense of self.* The significance of this sense of self is highlighted in this research in ‘the influence of the life-world on the self’ Section **6.4**) and in ‘the influence of the self on the life-world’, (Section **6.5**) as found in the differing experiences of all four research participants. The researcher’s experience of failing to understand the full significance of **Debbie’s** sense of self in her sense of rejection is recounted in Section **7.17 (3)**. Shakespeare has a striking and beautifully nuanced way of drawing attention to this in the first line of *Hamlet*. A guard, alone at night, hearing footsteps shouts out: “*Who’s there?*” Superficially, it is such an ordinary event; yet it is a particularly evocative and profound question at the start of a play that so powerfully dramatises the bewilderment of human beings about the origin of their condition. Neurobiology illuminates in fine detail the way changes occur in both brain and body proper in an organismic way, as existential phenomenology has always insisted in principle. “If core consciousness is the indispensable foundation of consciousness,

extended consciousness is its glory ... and at its peak is uniquely human” (Damasio 2000, p. 195). The sense of self is connected to the lived past, the present moment and the anticipated future. The sense of self is uniquely expressed in understanding, creativity and insight. The ‘self’ referred to in these research findings is of course based on activities throughout the entire organism: “the self is a repeatedly reconstructed biological state” (Damasio 2006, pp. 226-227). His interpretation of the condition of complete anosognosics is that their state of ‘self’ is impoverished because of their inability to process current body states with the result that they have to rely on old information. This vividly demonstrates the importance of existential phenomenology’s understanding and insistence upon the interplay of time’s three dimensions for a fully functional sense of ‘self’. So the sense of self is often, to use T.S Eliot’s vivid images in the *Four Quartets*, like “music heard so deeply that it is not heard at all”; yet, in those fleeting moments of insight in which deep understanding emerges, “you are the music while the music lasts”. “The images that constitute knowing and sense of self – the feelings of knowing – do not command center stage in your mind” (Damasio 2000, p. 128). The evidence of this research is that these images influence the mind powerfully, but discreetly and usually subtly rather than assertively.

### **7.18 The Value of the ‘Researcher’s Own Learning Experience’**

The attempt, in this particular section, is not to give a complete account, even if that were possible, of my learning experience, but to indicate some points on the learning curve where small, subtle and necessary shifts of awareness occurred – perhaps even some insight.

I am aware that this may well reveal that as a researcher I am more of a warning to heed than an example to follow, but perhaps there is still some value in that. It is one thing to research the experience of insight and quite another to “live and walk in the way of insight” (Proverbs 9:6). I shall seek to give a different example of my own learning as I sought to understand the significance of each of the research participant’s experience of insight.

The first example on the learning curve came right at the beginning of **Desmond’s** account of his experience. I have to acknowledge that, initially, I regarded his description of the horror of apartheid and his personal ambivalence about leaving Johannesburg to become Bishop of

Lesotho (MUs 3-13), as almost an incidental setting of the scene, without really appreciating the significance of his conflicts as essential preparation for his experience of insight. Perhaps I wanted to evaluate the achievement of insight without *seeing* and valuing the cost, the conflict and the pain from which it arose. On this occasion, my supervisor drew attention to the fact that I had only six meaning units in this section in my first draft. As a result, I reviewed the transcription and increased it to the current number of eleven. In the process two things happened. I realised I had failed to appreciate the fundamental nature of the preparatory experience for insight. I also experienced the refining power of the methodology. It had the effect of putting **Desmond's** experience under the microscope and I was surprised by the depth, complexity and intensity of his struggle before going into retreat. This new way of *seeing* it helped me to formulate not just his own situated structural statement, but to recognise the significance and crucial importance of this preparation, as part of the whole and holistic experience of insight in the experience of all the other research participants. So this finds expression also in the first three constituent components of the general structure of the experience of insight.

The second example emerges from the therapeutic relationship with **Debbie**. I was interested, and perhaps a little flattered, that in her list of six things in her e-mail, that had “greatly impacted” her (MU9) the first one she mentioned was a rather unusual ‘interpretation’ of mine in therapy. In terms of this research, it was perhaps an insight as analytic intuition (see Section **2.10.3.1**), rather than interpreting psychoanalytic theory (as in Section **2.10.6**). I am not aware, either before or since, in therapy of taking a book off my shelves and reading a short passage to a client. But I had a sense that C.S Lewis’s (1963, pp. 111-112) vivid images, and beautifully expressed understanding about the need, if she was going to protect her heart from the perturbations of love, to “lock it up safe in the casket or coffin of your selfishness” (MU20), might help her to see the implications of her self-protective attitude and behaviour. I was aware that it required some courage to share it, because one does not usually warn a client whose husband has been unfaithful to her for eighteen years, that “in that casket – safe, dark, motionless, airless – it [her heart] will change. It will not be broken; it will become unbreakable, impenetrable, irredeemable” (Lewis 1963, p. 112).

However, I sensed that the timing was right, and so it proved. **Debbie** “wrestled with whether or not it applies to me” for a month and a half. She describes it as “blood, sweat and tears” (MU21) and eventually concluded, as a result of listening to music that night when her insights came together, “I have a sense that it does” (MU9); “that’s pretty much what I was doing ... I was pretty happy to put my heart way way away” (MU20). In fact Lewis’s insistence that: “If you want to make sure of keeping it intact, you must give your heart to no-one, not even an animal” hit home because of Debbie’s loss of her kitten (MU28) in a way that I had not intended at the time. So she gained self-insight as well as insight into the vulnerable nature of, and risks inherent in, loving. This was essential, because there was no guarantee that her husband would be able, even if he was willing, to change his behaviour.

In the third example, in complete contrast to the above, I missed the significance of **Debbie’s** sense of self in her experience of insight. It should have been obvious, because I regarded her experience as primarily an example of self-insight; so, logically, it follows that her sense of self would be a critical factor. The truth is, I did not really *see* it; it required a shift in my awareness, and a little insight to recognise what a decisive factor it was. Not only did it follow logically, but in fact she had been quite explicit in the interview about her experience of rejection in the most vulnerable area of her life (MU8), her fear of rejection (MUs 24, 29) and her conclusion that: “rejection is the big thing” (MU30), but still I did not fully comprehend it.

Some time later, early one morning, as I was musing in bed before getting up, I suddenly and unexpectedly remembered an incident in therapy with **Debbie**. Immediately I knew it was significant, and felt a little excited and realised that I was in touch with a fresh empathic level of understanding her. The incident was crystal clear to me as if it had just happened. After vacuuming the floor in my study/consulting room, our domestic help had put the two chairs in which the client and I sit, about fifteen centimetres further apart than usual. To my shame, I did not even notice this; what I did notice was that she seemed more withdrawn than usual, but she did not initially disclose why. Later on she had the courage to tell me that she felt I was deliberately ‘distancing’ her. I was initially surprised, then recognised the importance of what she was saying, and apologised; we could see the previous indentations of the chairs on the carpet.

For me, this was such a helpful and vivid experience of empathically understanding her fear of rejection and the sensitivity and vulnerability of her ‘sense of self’ as in Section 7.17 (5). In the light of this little experience of insight, I was able to ‘see’ with new eyes how profoundly her ‘interpreting’, the influence of the self on the life-world, was affected by her experience of ‘rejection’ and her resultant sense of self (Section 6.5). It seemed clear that her withdrawing was to protect her ‘self’ from rejection, and that this was why there was a considerable lapse of time between most of the experiences which made an ‘impact’ upon her, and with which she had really wrestled, before she was able to ‘interpret’ them in a way that felt authentic for her, one night listening to music; significantly a ‘Symphony of Hope’ (MU25). It also enabled me to appreciate more profoundly what it meant for her to be ‘held’ in therapy, by the music and by God (MUs 4, 5) as the *sine qua non* of her experience of insight. So, in fact, right at the beginning of the interview she had revealed this, but I had missed the *significance* of it.

I have come to recognise the inconsistency between these two experiences of working with **Debbie** as typical in my learning curve: times of sight and periods of blindness, moments of insight and days of stumbling in the dark. Yet, recognising the stumbling and facing the challenge seems essential for deeper understanding and occasionally for insight. I have often experienced something of this, when a first draft of a chapter is, quite appropriately, heavily criticised by one of my supervisors. Frequently I require about three drafts before I begin to feel satisfied. My learning curve owes a great deal to the complementary role of my supervisors: to Assie Gildenhuis for his conscientious responses to my material, critical eye for detail and high standards for clarity of expression; to Richard Alapack for the depth of his understanding and the breadth of his application of phenomenology, as well as his personal encouragement and challenges.

As a fourth example in my learning curve, both supervisors felt I had not been sufficiently clear and explicit about the distinctive findings of the research in my first draft of Chapter 6, and one suggested that it was important to define and explore more coherently the *passive* experience of ‘impact’ (Section 6.11.5), the *reflexive* experience of ‘interpreting’ (Section 6.11.6) and the *active* experience of the ‘self-actualising’ process of insight (Section 6.11.7). It was in the process of responding to this useful challenge that I became aware of the way the three ecstasies of time in **Roger’s** reflexive experience of ‘interpreting’ might be illustrated by a musical chord,

and further by a cadence bringing about a harmonic resolution (Figure 12 in Section 7.6), similar to the way in which a satisfying ‘interpreting’ brings resolution to the issue or problem at a structural level in insight (Section 6.11.6). That small shift in awareness brought about a greater awareness of the significance and value of music illustrating aspects of insight in this thesis. In the next few seconds I realised that if I were asked to give a popular presentation of the experience of insight based on this thesis, I would not only want to present the key aspects of the research participants’ accounts of their experiences of insight, and the ten constituent components as findings of this research, but I would also want to construct a more experiential interactive musical ‘workshop’. This would not only make it a richer multi-media presentation, but also provide significant heuristic power, in enabling the audience/participants to experience aspects of insight and to explore illustrations of a number of the findings with musical examples; and perhaps to discover insights and solutions for themselves. As George Steiner (1997, p. 65) observes: “In the face of music, the wonders of language are also its frustrations”. Obviously, further thought and consultation would be required to put into practice such a ‘workshop’ of music-making and music-hearing for insight; equally obviously it goes beyond the scope of this thesis to work out the details in this context.

In my fifth example I have to confess that very naïvely in the preliminary study, I was hoping to get a clear sense of sequence in the structure of **Tony’s** creative insight. What emerged as we looked at his cartoons together was that there was no such clear pattern and, therefore, I would need to be more discerning of the structure of his experience rather than approaching it at a linear, sequential level. I felt perplexed and stuck. It was then that I suddenly realised in practice, rather than in some vague theoretical way, the value and importance of existential phenomenology’s understanding of the interplay of times’ three dimensions. It is so obvious in hindsight, but it came to me as a sort of insight that powerfully illuminates at a more profound level what one to some extent already knows. It may be objected that this is simply an example of the application of a truth, but, as argued in Section 7.10, this study regards a sudden, unexpected, and more profound application or understanding of a truth as part of the experience of insight. Indeed, it is not only part of the nature and significance of the recurrence of insight, but it is also a constituent component of the essential structure of the experience of insight itself (see Section 6.10).

## 7.19 The Limits, Shortcomings and Omissions in this Research Requiring Further Investigation

Despite the length of this study, there are at least five areas requiring further investigation.

First, the relationship between ‘impact’ and ‘interpreting’ is so significant that it might be valuable to specifically investigate the catalytic effect of listening to music. The potential for such an investigation is illustrated in **Debbie’s** experience, because this research reveals that she responded passively, reflexively and actively, which recapitulates in microcosm the three constituent components of the dynamic core of the experience of insight. Such an investigation goes beyond the limits of this particular research, but it is hypothesised that it might be a very fruitful avenue for further research.

Second, the experience of insight as ‘self-authenticating’ suggested in this study bears further investigation. **Roger’s** experience is sufficiently unusual to have questioned the common assumption that it is the “Aha!” experience of insight that motivates, enables and empowers action, but further investigation of the ‘self-authenticating’ nature of insight as integral to the whole experience of insight is necessary. At present, this is expressed as a tentative conclusion; that ‘it *may* even precede the conscious “Aha!” experience of insight when its full value is recognised’ (Section **6.11.8**).

Third, the question of whether seamless, transliminal experience between the propositional and implicational subsystems in terms of meaning making is *essential* for all forms of insight is worthy of further investigation. In this research, its value is noted (in Section **6.6**), but it is acknowledged that there is insufficient evidence to conclude that it is a necessary constituent component of all forms and experiences of insight.

Fourth, allow me to throw in a wild card. In the light of the current research and development of a scale of soft signs of loss of insight in people suffering from bipolar type II disorder (as defined in DSM – IV) featured in the international conference of psychiatrists in Vancouver in April 2010, there may be an interesting opportunity for a collaborative and comparative study between losing insight and gaining insight, between the different understanding of insight in

psychiatry and psychology (see Section 2.2), between a more quantitative and a more qualitative approach.

Fifth, the potential significance of the experience of insight in the lives of each of the research participants was referred to in Section 7.12, but it was concluded that this required a separate investigation to do the topic justice, with the key research question for the interview being: “How do you assess the significance of your experience of insight in the subsequent development of your life and work?” It was suggested that this question, put to all four research participants, might make an interesting follow-up to the current research, and perhaps provide the subject matter for an appropriate journal article.

## **7.20 A Concluding Overview of this Study**

The distinctive value of this study consists primarily in revealing the nature and structure of the experience of insight, together with a comprehensive and integrative reflection on the findings. It is person-centred rather than problem-centred, experience-orientated rather than theory-orientated and meaning-focused rather than mechanism-focused. One of the significant implications of this is that it is possible to explore the richly detailed descriptions of experiences of insight as diverse as those of the four research participants. Yet as revealed in Section 7.17 the qualitative research findings are entirely compatible with neurobiological research. In addition, there is not a built-in bias against seriously exploring the structure and components of insight of apparent transcendent experience, for example, and comparing it with experience of insight of natural scientific and cosmological issues.

The selection of research participants adds value despite flaws in guarding boundaries. Amongst the findings, the ‘disposition of openness’ and the need to adequately ‘confront’ and ‘contain’ the raw material for insight are regarded as important. Identifying and distinguishing the ‘moment of impact’ from the ‘moment of interpretation’ is also crucial since the evidence of this research demonstrates that in experience they do not always occur simultaneously as is usually assumed. The recognition of insight as ‘key to a self-actualising process’ and the significance of insight as ‘self-authenticating’, together with the importance of the philosophical understanding of intuition for insight, are matters of considerable consequence. An evaluation of the quality of



‘understanding’ in insight and the ‘recurrence’ of insight proves beneficial. An examination not only of the experience but also of its effects and ‘fruit in the unfolding context of a person’s life’ appears to have considerable potential and is worthy of further study. The relationship between insight on the one hand and sight, foresight and humour on the other, is useful. There is also benefit and value in relating this qualitative research to neurobiological research. Without doubt the appraisal of this researcher’s limits, shortcomings and own learning curve will give encouragement to others. It is also hoped that the recognition of the omissions of this research requiring further investigation will open possibilities to others.

I am profoundly grateful for, as well as humbled and enriched by, **Desmond’s** passion for peace and spirituality, **Debbie’s** appreciation and appetite for life, **Roger’s** sense of awe and wonder towards the mystery and beauty of being, and **Tony’s** delightful lampooning of our human failings.



## REFERENCES

Ackerman, S.J., Hilsenroth, M.J., Baity, M.R. & Blagys, M.D. (2000).

Interaction of therapeutic process and alliance during psychological assessment.

*Journal of Personality Assessment*, 75(1):82-109.

Ackerman, S.J. & Hilsenroth, M.J. (2001). A review of therapist

characteristics and techniques negatively impacting the therapeutic alliance.

*Psychotherapy* 38(2):171-185.

Ackerman, S.J. & Hilsenroth, M.J. (2003). A review of therapist characteristics positively impacting the therapeutic alliance. *Clinical Psychology Review* 23:1-33.

Ackermann, D.M. (2003). *After the locusts: Letters from a landscape of faith*. South Africa: David Philip.

Adelson, B. (2003). Issues in scientific creativity: insight, perseverance and personal technique. *Journal of the Franklin Institute*, 340:163-189.

Alapack, R.J. (1972). The phenomenology of the natural athlete. *Dissertations Abstracts International* (University Microfilms, No. 37-14, 580).

Alapack, R.J. (1990). The adolescent first kiss. *The Humanistic Psychologist*, 18:254-271.

Alapack, R.J. (1999). *Emanuel Levinas: Phenomenological psychology of the face and carnal intimacy*. Trondheim: Trondheim University Press.

Alapack, R.J. (1999). Jealousy in first love: Unwitting disclosure. In A.C. Richards & T Schumrum (Eds.) *Invitation to dialogue: The legacy of Sidney M. Jourard* (pp. 91-106). New York: Kendall-Hunt.

Alapack, R.J. (2000). Existential science: Soren Kierkegaard's psychology. *Psykologisk Tidsskrift*. 2:1-7.

Alapack, R.J. (2001). When Nana died: An existential narrative of the first talk with your child about death. *Psykologisk Tidsskrift*, 1:50-54.

Alapack, R.J. (2007). *Love's pivotal relationships: The chum, first Love, out-law, and the intimate partner*. Central Milton Keynes: AuthorHouse.

Alapack, R.J. (2010). *Sorrow's profiles: Death, grief, and crisis in the family*. London: Karnac Books.

Allen, J. (2006) *Desmond Tutu: Rabble-rouser for peace*. London: Random House.

Allen, J.G., Coyne, L., Colson, D.B., Horowitz, L., Gabbard, G.O., Frieswick, S.H. & Newson, G. (1996). Pattern of therapist interventions associated with patient collaboration *Psychotherapy*, 33(2):254-261.

Allott, M. (Ed.). (1967). *Novelists on the novel*. London: Routledge & Kegan Paul.

Amabile, T.M. (1982). Social psychology of creativity: A consensual assessment technique *Journal of Personality and Social Psychology*, 43:997-1013.

- Amabile, T.M. (1983). *The social psychology of creativity*. New York: Springer-Verlag.
- Amabile, T.M. (1996). *Creativity in context*. Boulder, CO: Westview.
- Ambady, M. & Rosenthal, R. (1992). Thin slices of expressive behaviour as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, 111(2): 256-274.
- American Psychological Association (2001/2007). *Publication manual. Fifth edition* Washington, DC: American Psychological Association.
- Anderson, H.E. (2006). *Sounds emanating from the self: An investigation of the role of sound and music in the healing of disturbed self states*. Unpublished masters thesis, University of Cape Town.
- Anderson, J.R. (Ed.) (1981). *Cognitive skills and their acquisition*. Hillsdale, NJ: Erlbaum.
- Anderson, J.R. (1987). Skill acquisition: Compilation of weak-method problem solutions. *Psychological Review*, 94:192-210
- Anderson, J.R. (1990). *Cognitive psychology and its implications*. San Francisco: Freeman
- Anderson, J.R. & Schooler, L.J. (1991). Reflections of the environment in memory. *Psychological Science*, 2:396-408.
- Ansburg, P.I. (2000). Individual differences in problem solving via insight. *Current Psychology*, 19(2): 143-146.
- Ansburg, P.I. & Dominowski, R.L. (2000). Promoting insight for problem solving. *Journal of Creative Behaviour*, 34(3): 30-60.
- Aanstoos, C.M. (1996). Phenomenology and the psychology of thinking. In P.D. Ashworth, A. Giorgi, & A.J.J. de Konig (Eds.). *Qualitative Research in Psychology* (pp.79-116). Pittsburgh: Duquesne University Press.
- Appelbaum, S.A. (1976). The dangerous edge of insight. *Psychotherapy: Theory, Research and Practice*, 13(3): 202-206.
- Arico, C. (2002). *A taste of silence*. New York: Continuum.
- Arieti, S. (1976). *Creativity: the magic synthesis*. New York: Basic Books.
- Ashworth, P. (1993). Participant agreement in the justification of qualitative findings. *Journal of Phenomenological Psychology*, 24(1): 3-16.
- Ashworth, P. (1996). Presuppose nothing! The suspension of assumptions in phenomenological psychological methodology. *Journal of Phenomenological*

*Psychology*, 27(1): 1-25.

- Atwood, G.E. & Stolorow, R.D. (1984). *Structures of subjectivity: Explorations in psychoanalytic phenomenology*. Hillsdale, NJ: Analytic Press.
- Austin, J.H. (1978). *Chase, chance, and creativity: the lucky art of novelty*. New York: Columbia University Press.
- Bachelor, A. (1991). Comparison and relationship to outcome of diverse dimensions of the helping alliance as seen by client and therapist. *Psychotherapy*, 28(4):534-549.
- Bachelor, A. (1995). Clients' perception of the therapeutic alliance: A qualitative analysis. *Journal of Counseling Psychology*, 42(3):323-337.
- Badiou, A. (2001). *Ethics: An essay on the understanding of evil*. London: Verso.
- Bakal, D. (1999). *Minding the body*. New York: Guilford Press.
- Baker-Sennett, J. & Ceci, S.J. (1996). Clue-efficiency and insight: Unveiling the mystery of inductive leaps. *The Journal of Creative Behaviour*, 30(3):153-172.
- Barber, J.P., Luborsky, L., Crits-Christoph, P., Thase, M.E., Weiss, R., Frank, A., Onken, L. & Gallop, R. (1999). Therapeutic alliance as a predictor of outcome in treatment of cocaine dependence. *Psychotherapy Research*, 9(1):54-73.
- Barnett, J. (1977). *Insight and therapeutic change*. Paper Presented to NYU Post-Doctoral Programme in Psychoanalysis and Psychotherapy.
- Barron, F. (1988). Putting creativity to work. In R.J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives* (pp.76-98). Cambridge University Press.
- Bastick, T. (1982). *Intuition: How we think and act?* New York: Wiley.
- Bateson, G. (1980). *Mind and nature*. London: Fontana/Collins.
- Battle, C.C., Imber, S.D., Hoehn-Saric, R., Stone, A.R., Nash, E.R. & Frank, J.D. (1967). Target complaints as criteria of improvement. *American Journal of Psychotherapy*, 21:184-192.
- Battle, M. (1997). *Reconciliation: The ubuntu theology of Desmond Tutu*. Cleveland, Ohio: Pilgrim Press.
- Baughman, W.A. & Mumford, M.D. (1995). Process-analytic models of creative capacities: Operations influencing the combination-and-reorganisation process. *Creativity Research Journal*, 8:37-62.
- Bausch, W.J. (1984). *Storytelling: Imagination and faith*. Mystic, CT: Twenty-Third

Publications.

- Baylor, A.L. (1997). A three-component conception of intuition: Immediacy, sensing relationships, and reason. *New Ideas in Psychology*, 15(2): 185-194.
- Baylor, A.L. (2001). A u-shaped model for the development of intuition by level of expertise. *New Ideas in Psychology*, 19: 237-244.
- Bayne, R., Horton, I., Merry, T. & Noyes, E. (1994). *The counsellor's handbook*. London: Chapman & Hall.
- Beeman, M.J. & Bowden, E.M. (2000). The right hemisphere maintains solution-related activation for yet-to-be solved problems. *Psychonomic Society, Memory and Cognition*, 28(7):1231-1241.
- Begbie, J.S. (2000a). *Theology, music and time*. Cambridge: University Press.
- Begbie, J. S. (Ed.) (2000b). *Beholding the glory: Incarnation through the arts*. London: Darton, Longman & Todd.
- Bell, E.T. (1937). *Men of mathematics*. Harmondsworth, England: Penguin.
- Bennet, W. (1980 Jan-Feb). *Providing for posterity*. *Harvard Magazine*, 82:13-16.
- Berger, P.L. (1973). *A rumour of angels: Modern society and the rediscovery of the supernatural*. London: Pelican.
- Beveridge, W.I.B. (1957). *The art of scientific investigation (3<sup>rd</sup> ed.)*. New York: Vintage.
- Bibring, B. (1954). Psychoanalysis and the dynamic psychotherapies. *Journal of the American Psychoanalytic Association*, 2:745-770.
- Bickhard, M.H. (1980). A model of developmental and psychological processes. *Genetic Psychology Monographs*, 102: 61-116.
- Bion, W.R. (1962a). *Learning from experience*. London: Karnac.
- Bion, W.R. (1962b). A theory of thinking. *International Journal of Psycho-Analysis*, 43: 306-310. Reprinted (1967) in *Second Thoughts*, London: Karnac.
- Bion, W.R. (1970). *Attention and interpretation*. London:Karnac.
- Bion, W.R. (1980). *Bion in New York and Sao Paulo*. Reading: Radavian Press.
- Blais, A.-R. & Weber, E. U. (2001). Domain-specificity and gender differences in decision making. *Risk, Decision, and Policy*, 6: 47-69.
- Blanchette, I. & Dunbar, K. (1998). Superficial and structural features in the generation of analogies. *Proceedings of the Twentieth Annual Conference of the Cognitive Science*

*Society*. Mahwah, N.J.: Erlbaum.

- Blanchette, I. & Dunbar, K. (2000). How analogies are generated: The roles of structural and superficial similarity. *Memory and Cognition*, 28:108-124.
- Blatt, S.J., Sanislow, C.A., Zuroff, D.C., & Pilkonis, P.A. (1996). Characteristics of effective therapists: Further analysis of data from the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *Journal of Consulting and Clinical Psychology*, 64(6):1276-1284.
- Bloom, A. (1966). *Living prayer*. London: Darton, Longman & Todd.
- Bloom, A. & LeFebvre, G.(1973). *Courage to pray*. London: Darton, Longman & Todd.
- Bloom, A. (2005). *Encounter*. (Trans.T. Wolff). (First published in Russia 1999. Ed. E.L. Maidanovitch.) London: Darton, Longman & Todd.
- Boden, M.A. (1991). *The creative mind: Myths and mechanisms*. New York: Basic Books.
- Bohart, A.C. (1998). Intuition and creativity in psychotherapy. *Journal of Constructivist Psychotherapy*. 24(4): 287-311.
- Bollas, C. (1987). *The shadow of the object: Psychoanalysis of the unthought known*. London: Free Association Books.
- Bollas, C. (1992). *Being a character: Psychoanalysis and self-experience*. New York: Hill and Wang.
- Bonner, P. & Segal, L. (1998). *Soweto: A history*. Cape Town: Maskew Miller Longman.
- Boorstein, S. (1994). Insight: Some considerations regarding its potential and limitations. *The Journal of Transpersonal Psychology*, 26(2):95-105.
- Bors, D.A. & Silberman, R.L. (1993). The importance of orienting attitudes in the perception of Hering and Zollner illusions. *Journal of Phenomenological Psychology*, 24(2): 161-174.
- Boss, M. (1979). Fundamental characteristics of human beings in (gap) existential foundations of medicine and psychology (pp. 86-126).
- Bowden, E.M. & Beeman, M.J. (1988). Getting the right idea: Semantic activation in the right hemisphere may help solve insight Problems. *Psychological Science*, 9(6): 435-440.
- Bowden, E.M., Jung-Beeman, M., Fleck, J. & Kounios, J. (2005). New approaches to demystifying insight. *TRENDS in Cognitive Sciences*, 9(7):322-328.
- Bower, G.H. (1981). Mood and memory. *American Psychologist*, 36:129-148.

- Bowers, K.S., Regehr, G., Balthazard, C., & Parker, K. (1990). Intuition in the context of discovery. *Cognitive Psychology*, 22:72-110.
- Bowers, K.S., Farvolden, P. & Mermigis, L. (1995). Intuitive antecedents of insight. In S.M. Smith, T.B. Ward & R.A. Finke, (Eds.), *The Creative Cognition Approach* (pp 27-51) Cambridge, MA: MIT Press.
- Brady, M.J., Peterman, A.H., Fitchett, G., Mo, M. & Cella, D. (1999). A case for including spirituality in quality of life measurement in oncology. *Psycho-oncology*, 8:417-428.
- Braio, F.P. (1988). *Lonergan's retrieval of the notion of human being: Clarifications of and reflections on the argument of insight, chapters 1-18*. Lanham: University Press of America.
- Brandimonte, M.A., Hitch, G.J., & Bishop, D.V.M. (1992). Influence of short-term memory codes on visual image processing: Evidence of image transformation tasks. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 18:157-165.
- Brandimonte, M.A., Schooler, J.W. & Gabbino, P. (1993). *Release from verbal overshadowing*. Paper Presented at The European Society for Cognitive Psychology Conference, Copenhagen, Denmark.
- Brenner, C. (1982). *The mind in conflict*. New York: International Universities Press.
- Brockman, J. (Ed.) (1997). *About Bateson*. New York: EP Dutton.
- Brown, W.S. (Ed.) (2000). *Understanding wisdom: Sources, science and society* Philadelphia and London: Templeton Foundation Press.
- Bruner, J. & Potter, M. (1964). Interference in visual recognition. *Science*, 144:424-425.
- Bryant, C. (1978). *The river within: The search for God in depth*. London: Darton, Longman & Todd.
- Buber, M. (1970). *I and thou* (Kaufman, W. Trans.). New York: Scribner. (Original work published 1937.)
- Burke, R.J. (1972). What do we know about hints in individual problem-solving? Some conclusions. *The Journal of General Psychology*, 86:253-265.
- Campbell, D.T. (1960). Blind variation and selective retention in creative thought as in other knowledge processes. *Psychological Review*, 67(6):380-400.
- Campbell, D.T. (1965). Variation and selective retention in socio-cultural evolution. In H.R. Barringer, G.I Blanksten, & R.W. Mack (Eds.), *Social Change in Developing Areas*

- (pp.19-49). Cambridge: Schenkman.
- Campbell, D.T. (1974). Evolutionary epistemology. In P.A. Schlipp (Ed.), *The Philosophy of Karl Popper* (pp.413-463). La Salle, IL: Open Court.
- Campbell, D.T. (1991). Autopoietic evolutionary epistemology and internal selection. *Journal of Social and Biological Structures*, 14:166-173.
- Campbell, R.L. & Bickhard, M.H. (1986). *Knowing levels and developmental stages*. Basel: Karger.
- Carpenter, H. (1979). *The Inklings*. Boston, MA: Houghton Mifflin Company.
- Carter, R. (2004). *Mapping the mind*. London: Orion Books Limited .
- Casement, A. & Tacey, D. (Eds.) (2006). *The idea of the numinous: Contemporary Jungian and psychoanalytic perspectives*. Hove: Routledge.
- Chase, W.G. & Simon, H.A. (1973). The Mind's Eye in Chess. In W.G. Chase (Ed.) *Visual information processing*. New York: Academic Press.
- Chen, Z & Daehler, M.W. (2000). External and internal instantiation of abstract information facilitates transfer in insight problem solving. *Contemporary Educational Psychology*, 25:423-449.
- Chessick, R.D. (1986). Heidegger for psychotherapists. *American Journal of Psychotherapy*, XL (1): 83-95.
- Chesterton, G.K. (1943). *Orthodoxy*. London: The Bodley Head.
- Ching-Tung, L. & Dominowski, R.L. (1985). Effects of strategy instructions and practice on nine-dot problem solving. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 11(4):804-811.
- Chipman, S.F, Segal, J.W. & Glaser, R. (Eds.) (1985). *Thinking and learning skills: Vol. 2. research and open questions*. Hillsdale, NJ: Erlbaum.
- Chronicle, E.P., MacGregor, J.N. & Ormerod, T.C. (2004). What makes an insight problem? The roles of heuristics, goal conception, and solution recording in knowledge-lean problems. *Journal of Experimental Psychology: Learning, Memory, and Cognition*,30(1):14-27.
- Chrysikou, E.G. & Weisberg, R.W. (2005). Following the wrong footsteps: Fixation effects of pictorial examples in a design problem-solving task. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 31(5):1134-1148.

- Cieurzo, C. & Keitel, M.A. (1999). Ethics in qualitative research. In M. Kopala & L.A. Suzuki (Eds.), *Using qualitative methods in psychology* (pp 63-75). Thousand Oaks. CA: Sage.
- Clifford, M.M. (1988). Failure tolerance and academic risk taking in ten to twelve year old students. *British Journal of Educational Psychology*, 58(1):15-27.
- Clohessy, C.P. (2008). Unpublished Paper. *A common word between us and you*.
- Clottes, J. & Lewis-Williams, J.D. (1998). *The shamans of prehistory: Trance and magic in painted caves*. New York: Abrams Press.
- Coffey, A. & Atkinson, P. (1996). *Making Sense of qualitative data: Complementary research strategies*. London: Sage Publications.
- Colaizzi, P.F. (1978). Psychological research as the phenomenologist views it. In R.S. Valle & M. King (Eds.) *Existential-Phenomenological Alternatives for Psychology* (pp. 48-71). New York: Oxford University Press.
- Collins, F.S. (2006). *The language of God: A scientist presents evidence for belief*. New York: Free Press of Simon & Schuster.
- Colman, A.M. (2006). *Oxford dictionary of psychology*. Oxford: Oxford University Press.
- Coltart, N. (1992). Attention. In *Slouching towards Bethlehem: And further psychoanalytic explorations*: 176-193. London: Free Association Books.
- Connolly, M.B., Crits-Christoph, P., Shappell, S., Barber, J.P., Luborsky, L. & Shaffer, C. (1999). Relation of transference interpretations to outcome in the early sessions of brief supportive-expressive psychotherapy. *Psychotherapy Research*, 9:485-495.
- Cooper, M. The discourse of existence: Existential-phenomenological psychotherapy in a post-modern world. *Journal for the Society of Existential Analysis*, 93-101.
- Crease, R.P. & Mann, C.C. (1986). *The second creation: Makers of the revolution in 20<sup>th</sup> century*. New York: Macmillan.
- Crits-Christoph, P., Cooper, A. & Luborsky, L. (1988). The accuracy of therapists' interpretations and the outcome of dynamic psychotherapy. *Journal of Consulting and Clinical Psychology*. Vol.56, No.4: 490-495.
- Crits-Christoph, P., Barber, J.P., Miller, N.E. & Beebe, K. (1993). Evaluating insight. In N.E. Miller, L. Luborsky, J.P. Barber & J.P. Doherty (Eds.), *Psychodynamic Treatment Research: a Handbook for Clinical Practice* (pp.407-422). New York: Basic Books.

- Crits-Christoph, P., Barber, J.P. & Kurcias, J.S. (1993). The accuracy of therapists' interpretations and the development of the therapeutic alliance. *Psychotherapy Research*, 3(1):25-35.
- Crits-Christoph, P., Siqueland, J., Chittams, J., Barber, J.P., Beck, A.T., Liese, B., Onken, L.S., Thase, M.E., Frank, A., Luborsky, L., Mark, D., Mercer, D., Najavits, L.M. & Woody, G. (1998). Training in cognitive, supportive-expressive, and drug counselling therapies for cocaine dependence. *Journal of Consulting and Clinical Psychology*, 66(3):484-492.
- Csikszentmihalyi, M. (1988). Motivation and creativity: Towards a synthesis of structural and energistic approaches to cognition. *New Ideas in Psychology*, 6:159-176.
- Csikszentmihalyi, M. (1988). Society, culture and person: A systems view of creativity. In R.J. Sternberg (Ed.), *The Nature of Creativity*, (pp.325-339). Cambridge, England: Cambridge University Press.
- Csikszentmihalyi, M (1990a). The domain of creativity. In M.A. Runco & R.S. Albert (Eds.), *Theories of Creativity* (pp.190-212). Newbury Park, CA: Sage Publications.
- Csikszentmihalyi, M. & Sawyer, K. (1995). Creative insight: The social dimension of a solitary moment. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Csikszentmihalyi, M. (1997). *Creativity: Flow and the psychology of discovery and invention*. New York: Harper Collins.
- Cummings, A.L., Martin, J., Hallberg, E.T. & Slemon, A.G. (1992). Memory for therapeutic events, session effectiveness, and working alliance in short-term counseling. *Journal of Counseling Psychology*, 39:306-312.
- Daaleman, T.P. & VandeCreek, L. (2000). Placing religion and spirituality in end-of-life care. *Journal of the American Medical Association*, 284:2514-2517.
- Dalai Lama (1996). *The good heart: A Buddhist perspective on the teachings of Jesus*. Boston: Wisdom Publications.
- Damasio, A. (2006). *Descartes' error: Emotion, reason and the human brain*. London: Vintage Books.
- Damasio, A. (2000). *The feeling of what happens: Body, emotion and the making of consciousness*. London: Vintage Books.

- Darwin, C. (1911). *The life and letters of Charles Darwin* (Vol.1). F.Darwin, (Ed.). New York: Appleton.
- Darwin, C. (1986). *Correspondence: Vol.2. 1837-1843*. Cambridge, England: Cambridge University Press.
- Darwin, F. (Ed.). (1958). *The autobiography of Charles Darwin and selected letters*. New York: Dover. (Original work published 1892.)
- Davidson, J.E. (1986), Insight and intellectual giftedness. In R.J. Sternberg and J.E. Davidson (Eds.) *Conceptions of Giftedness*. New York, Cambridge University Press.
- Davidson, J.E. & Sternberg, R.J. (1986). What is insight? *Educational Horizons*, 64: 177-179.
- Davidson, J.E. (1995). The suddenness of insight. In Sternberg, R.J. & Davidson, J.E. (Eds.). *The Nature of Insight*. Cambridge, MA: MIT Press.
- Davies, P. (1993). *The mind of God: Science and the search for ultimate meaning*. London: Penguin Books.
- Davis, M. & Wallbridge, D. (1983). *Boundary and space: An introduction to the work of D.W. Winnicott*. Harmondsworth: Penguin Books Ltd.
- de Chardin, T. (1959). *The phenomenon of man*. Wm. Collins & Co.Ltd. London and Harper & Brothers, New York.
- de Gruchy, J.W. (2001). *Christianity, art and transformation: Theological aesthetics in the struggle for justice*. Cambridge: Cambridge University Press.
- De Koning, A.J.J. (1979). The qualitative method of research in the phenomenology of the suspicion. In A. Giorgi, R. Knowles & D.L.Smith (Eds.), *Duquesne Studies in Phenomenological Psychology*.(Vol. III. pp.122-134). Pittsburgh: Duquesne University Press.
- Dellarosa, D. (1988). A history of thinking. In R.J. Sternberg and E.E.Smith (Eds.), *The Psychology of Human Thought* (pp.1-18). Cambridge, England: Cambridge University Press.
- Denes-Raj, V. & Epstein, S. (1994). Conflict between intuitive and rational processing: When people behave against their better judgment. *Journal of Personality and Social Psychology*, 66 (5): 819-829.
- Denne, J.M. & Thompson, N.L. (1991). The experience of transition to meaning and purpose in life. *Journal of Phenomenological Psychology* 22, No.2: 109-133.

- Descartes, R. (1637). *The philosophical works of Descartes*. Trans. E.S. Haldane & G.R.T Ross, Vol. 1, (1970:101). New York: Cambridge University Press.
- Descartes, R. (1969). *The essential Descartes*, ed. M.D. Wilson. New York: New American Library.
- Detterman, D.K. & Sternberg, R.J. (Eds.). (1992). *Transfer on trial: Intelligence, cognition and construction*. Norwood, N.J.: Ablex.
- Dewey, J. (1896). The reflex arc concept in psychology. *Psychological Review* 3(4):357-370.
- Diamond, G.M., Hogue, A., Liddle, H.A. & Dakof, G.A. (1999). Alliance-building interventions with adolescents in family therapy: A process study. *Psychotherapy*, 36(4):355-368.
- Diener, E, Lucas, R.E. & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In C.R. Synder & S.J.Lopez (Eds.) *Handbook of positive psychology* (pp.63-73). Oxford: Oxford University Press.
- Dijksterhuis, A. (2004). Think different: The merits of unconscious thought in preference development and decision making. *Journal of Personality and Social Psychology*, 87(5): 586-598.
- Dijksterhuis, A & Nordgren, L.F. (2006). A theory of unconscious thought. *Association for Psychological Science*, 1(2): 95-109.
- Dolinsky, A., Vaughan, S.C., Luber, B., Mellman, L. & Roose, S. (1998). A match made in heaven? A pilot study of patient-therapist match. *Journal of Psychotherapy Practice and Research*, 7:119-125.
- Dominowski, R.L. (1981). Comment on “An examination of the alleged role of ‘fixation’ in the solution of several ‘insight’ problems”. *Journal of Experimental Psychology: General*, 110:193-198.
- Dominowski, R.L. & Buyer, L.S. (1985). *Retention of problem solutions*. Paper presented to the British Psychological Society – Cognitive Psychology Section.
- Dominowski, R.L. & Dallob, P. (1995). Insight and problem solving. In Sternberg, R J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Dorfman, J., Shames, V. & Kihlstrom, J. (1996). Intuition, incubation and insight: Implicit cognition in problem solving. In Underwood, G. (Ed.) *Implicit Cognition*. Oxford

Oxford University Press.

- Dougal, S. & Schooler, J.W. (2007). Discovery misattribution: When solving is confused with remembering. *Journal of Experimental Psychology: General*. 136(4):577-592.
- Drake, S. (1978). *Galileo at Work : His scientific biography*. Chicago: University of Chicago Press.
- Dreisadt, R. (1968). An analysis of the use of analogies and metaphors in science. *Journal of Psychology*, 71:159-175.
- Dreman, D. (1977). *Psychology and the stock market*. New York: Amacon.
- Dreman, D. (1982). *The new contrarian investment strategy*. New York: Random House.
- Du Boulay, S. (1988). *Tutu: Voice of the voiceless*. London: Hodder & Stoughton.
- Duch, W. (2007). Intuition, insight, imagination and creativity. *CI Magazine*, 1-17.
- Dunbar, K & Klahr, D. (1989). Developmental differences in scientific discovery processes. In D. Klahr and K. Kotovsky (Eds.), *Complex Information Processing: the Impact of Herbert A. Simon* (pp.109-143). Hillsdale, NJ: Erlbaum.
- Dunbar, K. (1995). How scientists really reason: Scientific reasoning in real-world laboratories. In Sternberg R.J. and Davidson, J.E. (Eds.), *The Nature of Insight*, (pp.365-396). Cambridge, MA: MIT Press.
- Dunbar, K. (1997). How scientists think: On-line creativity and conceptual change in science. In T.B. Ward, S.M. Smith, & S. Vaid, (Eds.), *Conceptual Structures and Processes: Emergence, Discovery and Change*. Washington, DC: American Psychological Association Press.
- Dunbar, K. (1999). The scientist in vivo: How scientists think and reason in the laboratory. In L. Magnani, N. Nersessian, & P. Thagard(Eds.). *Model-Based Reasoning in Scientific Discovery*. (pp.89-98). New York: Plenum Press.
- Dunbar, K. (2000). The analogical paradox: Why analogy is so easy in naturalistic settings, yet so difficult in the psychological laboratory. In D. Gentner, K.J. Holyoak, & B.N. Kokinov, (Eds.) *The Analogical Mind: Perspectives from Cognitive Science*, (pp.313-334). Cambridge, MA: MIT Press.
- Dunbar, K. (2001). What scientific thinking reveals about the nature of cognition. In K. Crowley, C.D. Schunn, & T. Okada, (Eds.). *Designing for Science: Implications from*

- Everyday Classroom, and Professional Settings*. Hillsdale, NJ: Erlbaum.
- Duncker, K. (1945). On problem solving. *Psychological Monographs*, 68 (5), whole no. 270.
- Durso, F.T., Rea, C.B. & Dayton, T. (1994). Graph-Theoretic Confirmation of Restructuring During Insight. *American Psychological Science*, 5(2): 94-98.
- Dyckman, K.M. & Carrroll, L.P. (1981). *Inviting the mystic, supporting the prophet: An introduction to spiritual direction*. New York: Paulist Press.
- Eisenstadt, J.M. (1978). Parental loss and genius. *American Psychologist*, 33: 211-223.
- Eliot, T.S. (1995). East Coker. In *Four Quarters*. (pp. 15-23). London: Faber & Faber.
- Ellen, P. (1982). Direction, past experience, and hints in creative problem solving: Reply to Weisberg and Alba. *Journal of Experimental Psychology: General*, 111:316-325.
- Elliott, C. (1985). *Praying the kingdom: Towards a political spirituality*. London: Darton, Longman & Todd.
- Ellis, G.F.R. & Toronchuk, J.A. *Affective euronal group selection 11: The Nature of the primary emotional systems*. Unpublished Manuscript.
- Ellis, G.F.R. & Toronchuk, J.A. *Neural development: Affective and immune system influences*. Unpublished Manuscript.
- Engel, A.K., Fries, P. & Singer, W. (2001). Dynamic predictions: Oscillations and synchrony in top-down processing. *Nature Reviews Neuroscientists*, 2(10):704-716.
- Epstein, R. (1990). Generativity theory and creativity. In M.A. Runco & R.S. Albert (Eds.), *Theories of Creativity* (pp.116-140). Newbury Park, CA: Sage Publications.
- Epstein, S., Lipson, A., Holstein, C. & Huh, E. (1992). Irrational reaction to negative outcome evidence for two conceptual systems. *Journal of Personality and Social Psychology*, 62:328-339.
- Epstein, S. (1994). Integration of the cognitive and psychodynamic unconscious. *American Psychologist*, 49: 709-724.
- Eysenck, H.J. (1993). Creativity and personality: Suggestions for a theory. *Psychological Inquiries*, 4:147-178.
- Eysenck, H.J. (1995). *Genius: The natural history of creativity*. Cambridge, England: Cambridge University Press.
- Fallshore, M. & Schooler, J.W. (1993). Post-encoding verbalization impairs transfer on artificial grammar tasks. *Proceeding of the 15<sup>th</sup> Annual Meeting of The Cognitive*

- Science Society*. Hillsdale, NJ: Erlbaum.
- Faries, J.M. & Reiser, B.J. (1990). Terrorists and spoiled children: Retrieval of analogies for political arguments. *Proceedings of the 1990 AAAI Spring Symposium on Case-Based Reasoning*. Stamford University.
- Farr, J.L. (1990). Facilitating individual role innovation. In M.A. West & J.L. Farr (Eds.), *Innovation and Creativity at Work: Psychological and Organisational Strategies* (pp.207-230). New York: Wiley.
- Farraday, M. (1831). On a peculiar class of optical deceptions. *Royal Institution Journal*, 2,205-223, 334-336.
- Feldman, D.H. (1979). The mysterious case of extreme giftedness. In H.Passow (Ed.), *The Gifted and the Talented. Yearbook of the National Society for the Study of Education* (pp.335-351). University of Chicago Press.
- Feldman, D.H. (1980). *Beyond universals in cognitive development*. Norwood, M.J.: Ablex
- Feldman, D.H. (1986a). How Development Works. In I. Levin (Ed.), *Stage and Structure: Reopening the Debate* (pp.284-306). Norwood, NJ: Ablex.
- Feldman, D.H. (1986b). *Nature's gambit: Child prodigies and the development of human potential*. New York: Basic Books.
- Feldman, D.H. (1989). Creativity: Dreams, insights, and transformations. In R.J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives*, (pp.271-297). Cambridge, England: Cambridge University Press.
- Feldman, D.H. & Goldsmith, L.T. (1986). Transgenerational influences on the development of early prodigious behaviour: A case study approach. In W. Fowler (Ed.), *Early Experience and Competence Development*. (pp.67-85). San Francisco: Jossey-Bass.
- Findlay, C.S. & Lumsden, C.J. (1988). *The creative mind: Toward an evolutionary theory of discovery and innovation*. San Diego: Academic Press.
- Finke, R.A. (1989). *Principles of mental imagery*. Cambridge, MA: MIT Press.
- Finke, R.A. (1995). Creative insight and preinventive forms. In Sternberg, R.J. & Davidson, J.E. (Eds.). *The Nature of Insight*. Cambridge, MA: MIT Press.
- Finke, R.A., Ward, T.B. & Smith, S.M. (1992). *Creative cognition: Theory, research, and applications*. Cambridge: MIT Press.
- Fischer, C.T & Wertz, F.J. (1979). Empirical phenomenological analyses of being criminally

- victimized. In A. Giorgi, R. Knowles & D.L.Smith (Eds.) *Duquesne Studies in Phenomenological Psychology*. Vol. III. (pp. 135-158). Pittsburg: Duquesne University Press.
- Fischer, W.F. (1989). An empirical-phenomenological investigation of being anxious: An example of the phenomenological approach to emotion. In R.S. Valle & S. Halling (Eds.) *Existential-Phenomenological Perspectives in Psychology*. (pp. 127-136). New York: Plenum Press.
- Fitchett, G., Murphy, P.E., Kim, J., Gibbons, J.L., Cameron, J.R. & David, J.A.(2004). Religious struggle: Prevalence correlates and mental health risks in diabetic, congestive heart failure, and oncology patients. *International Journal of Psychiatry in Medicine*, 34:179-196.
- Frankl, V.E. (1973). *The doctor of the soul: From psychotherapy to logotherapy*. (Trans. R. & C. Winston.) (Originally published 1946.) New York: Vintage Books, Random House.
- Freeman, A. (1993). Operative intentionality: Notes on Merleau-Ponty's approach to mental activities that are not the exclusive product of the conscious mind. *Journal of Phenomenological Psychology*, 24(1): 78-89.
- Freud, S. (1936). *The problem of anxiety*. (H.A. Bunker, Trans.) New York: Psychoanalytic Quarterly Press and W.W. Norton & Co. (Original work published in German in 1926.)
- Frijda, N.H. & de Groot, A.D. (Eds.). (1982). *Otto Selz: His contribution to psychology*. The Hague: Mouton.
- Fuller, R. (1990). *Insight into value: An exploration of the premises of a phenomenological psychology*. Albany: State University of New York Press.
- Galileo, G. (1961). La bilancetta [The little balance]. In L. Fermi and G. Bernardini (Eds.), *Galileo and the Scientific Revolution*. (pp.133-143).
- Gardner, H. (1988). Creative lives and creative works: A synthetic scientific approach. In R.J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives*, (pp.298-321). Cambridge University Press.
- Gardner, H. (1993). *Creating minds: An anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham and Gandhi*. New York. Basic

Books: Harper Collins.

- Gardner, M. (1978). *Aha! insight*. New York: Freeman.
- Garrod, H.W. (1960). (Ed.). *The poetical works of Keats*. London: Oxford University Press.
- Gartner, J. (1996). Religious commitment, mental health and pro-social behaviour: A review of the empirical literature. In E.P. Shafranske (Ed.), *Religion and the clinical practice of psychology* (pp.187-214). Washington, DC: American Psychological Association.
- Gaston, L. & Ring, J.M. (1992). Preliminary results on the inventory of therapeutic strategies. *Journal of Psychotherapy Practice and Research*, 1,135-146.
- Gaston, L., Thompson, L., Gallagher, D., Cournoyer, L., & Gagnon, R. (1998). Alliance, technique and their interactions in predicting outcome of behavioural, cognitive and brief dynamic therapy. *Psychotherapy Research*, 8(2),190-209.
- Gelso, C.J., Kivlighan, D.M., Wine, B., Jones, A. & Friedman, S.C. (1997). Transference, insight, and the course of time-limited therapy. *Journal of Counseling Psychology*, 44,209-217.
- Gentner, D. (1983). Structure mapping: A theoretical framework. *Cognitive Science*, 7, 155-170.
- Gentner, D. (2000). Metaphor is like analogy. In D. Gentner, K.J. Holyoak, & B.N. Kokinov, (Eds.). *Analogy: Perspectives from Cognitive Science*. Cambridge, MA: MIT Press.
- Getzels, J.W. (1964). Creative thinking, problem-solving, and instruction. In E.R. Hilgard (Ed.), *Theories of Learning and Instruction* (sixty-third yearbook of the National Society for the Study of Education), pp.240-267. Chicago: University of Chicago Press.
- Getzels, J.W. & Csikszentmihalyi, M. (1976). *The creative vision: A longitudinal study of problem finding in art*. New York: Wiley.
- Ghiselin, B. (1952). *The creative process*. Berkeley, CA: University of California Press.
- Gibbard, M. (1976). *Prayer and contemplation*. Oxford: Mowbray & Co.
- Gibson, J.J. (1979). *The ecological approach to visual perception*. Boston: Houghton Mifflin.
- Gick, M.L. & Holyoak, K.J. (1980). Analogical problem solving. *Cognitive Psychology*, 12: 306-355.
- Gick, M.L. & Holyoak, K.J. (1983). Schema induction and analogical transfer. *Cognitive Psychology*, 15: 1-38.

- Gick, M.L. & Lockhart, R.S. (1995). Cognitive and affective components of insight. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Gilbert, M. (1994). *In search of Churchill*. London: HarperCollins.
- Gillett, G. (1994). Insight, delusion and belief. *PPP*, 1(4): 227-236.
- Giorgi, A.P. (1970). *Psychology as human science: A phenomenologically- based approach*. New York: Harper & Row.
- Giorgi, A.P., (1971). Phenomenology and experimental psychology: I & II. In *Duquesne Studies in Phenomenological Psychology: Vol. 1*. (pp.6-29). Giorgi, A.P., Fischer, W.F. & von Eckartsberg, R. (Eds.) (1971). Pittsburg: Duquesne University Press.
- Giorgi, A.P. (1975a). Convergence and divergence of qualitative and quantitative methods in psychology. In A. Giorgi, C.T. Fischer & E.L. Murray (Eds.), *Duquesne Studies in Phenomenological Psychology: Vol. II* (pp.72-79). Pittsburgh: Duquesne University Press.
- Giorgi, A.P. (1975b). An application of phenomenological method in psychology. In A. Giorgi, C. Fischer & E. Murray (Eds.) *Duquesne Studies in Phenomenological Psychology: Vol. II*. (pp.82-103). Pittsburg: Duquesne University Press.
- Giorgi, A.P. (1979). Phenomenology and psychological theory in Giorgi, A., Knowles, R., Smith, D.L. (Eds.) *Duquesne Studies in Phenomenological Psychology: Vol. III* (pp.60-79). Pittsburg: Duquesne University Press.
- Giorgi, A.P. (1983). Concerning the possibility of phenomenological psychological research. *Journal of Phenomenological Psychology* 14(2): 130-169.
- Giorgi, A.P., Barton, A. & Maes, C. (Eds.). (1983). *Duquesne studies in phenomenological psychology: Vol. IV* Pittsburgh: Duquesne University Press.
- Giorgi, A.P. (1985a). (Ed.). *Phenomenology and psychological research*. Pittsburgh: Duquesne University Press.
- Giorgi, A.P. (1985b). The phenomenological psychology of learning and the verbal learning tradition. In A. Giorgi (Ed.). *Phenomenology and Psychology Research* (pp.23-85). Pittsburgh: Duquesne University Press.
- Giorgi, A.P. (1986). Theoretical justification for the use of descriptions in psychological

- research. In P.D Ashworth, A.P. Giorgi, A.J.J. de Koning (Eds.) : *Qualitative Research in Psychology*, pp.3-23. Pittsburgh: Duquesne University Press.
- Giorgi, A.P. (1995). Phenomenological psychology, in J.A. Smith, R. Harre & L. van Langenhove, *Rethinking Psychology*. London: Sage.
- Giorgi, A.P. & Giorgi, B.M. (2003). The descriptive phenomenological psychological method. In Camic, R.M., Rhodes, J.E. & Yardley, L. (Eds.). *Qualitative Research in Psychology* (pp.243-273). Washington, DC: American Psychological Association.
- Giorgi, A.P (2004). A way to overcome the methodological vicissitudes involved in researching subjectivity. *Journal of Phenomenological Psychology*. 35(1): 1-25.
- Giorgi, A.P. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Pittsburgh: Duquesne University Press.
- Gladwell, M. (2005). *Blink: The power of thinking without thinking*. New York: Little Brown
- Glass, A.L. & Holyoak, K.J. (1986). *Cognition*. New York: Random House.
- Gleick, J. (1992). *Genius: The life and science of Richard Feynman*. New York: Pantheon Books.
- Gobodo-Mdikizela, P. (2003). *A human being died that night: A story of forgiveness*. South Africa: David Philip Publishers.
- Goertzel, M.G., Goertzel, V. & Goertzel, T.G. (1978). *Three hundred eminent personalities: A psychosocial analysis of the famous*. San Francisco: Jossey-Bass.
- Goldstein, J. (1976). *The experience of insight: A Simple and Direct Guide to Buddhist Meditation*. Santa Cruz CA: Unity Press.
- Goleman, D. (1996). *Emotional intelligence: Why it can matter more than IQ*. London: Bloomsbury Publishing PLC.
- Good, S.R. (2000). A.R. Luria: A humanistic legacy. *Journal of Humanistic Psychology* 40(1):18-32.
- Goodfield, J. (1981). *An imagined world: A story of scientific discovery*. New York: Harper & Row.
- Green, T.H. (1982). *When the well runs dry*. Notre Dame, Indiana: Ave Maria Press.
- Greene, J. & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in Cognitive Sciences* 6(2):517-523.
- Greenman, M.A. (1987). Intuition and the limits of philosophical insight. *Metaphilosophy*

18(2):125-135.

- Greenwald, A.G. & Banaji, M.R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4-27.
- Gregory, R.L. (Ed.) (1987). *The Oxford companion to the mind*. Oxford: Oxford University Press.
- Grenyer, B.F.S. & LuborskyL. (1996), Dynamic change in psychotherapy; Mastery of interpersonal conflicts. *Journal of Consulting and Clinical Psychology*, 64:411-416.
- Gruber, H.E. (1981a). *Darwin on man: A psychological study of scientific creativity*. (2<sup>nd</sup> ed.). Chicago: University of Chicago Press (original work published 1974).
- Gruber, H.E. (1981b). On the relation between “Aha!” experiences and the construction of ideas. *History of Science*, 19,41-59.
- Gruber, H.E. & Davis, S.N. (1988). Inching our way up mount olympus: The evolving-system approach to creative thinking. In R. J. Sternberg (Ed.), *The Nature of Creativity* (pp.243-270). Cambridge, England: Cambridge University Press.
- Gruber, H.E. (1989). The evolving systems approach to creative work. In D.B. Wallace & H.E. Gruber, *Creative People at Work: Twelve Cognitive Case Studies* (pp.3-24). New York: Oxford University Press.
- Gruber, H.E. (1995). Insight and affect in the history of science. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Guilford, J.P. (1950). Creativity. *American Psychologist*, 5:444-454.
- Guilford, J.P. (1956). Structure of intellect. *Psychological Bulletin*, 53:267-293.
- Guilford, J.P. (1967). *The nature of human intelligence*. New York: McGraw-Hill.
- Guilford, J.P. (1986). *Creative talents: Their nature, uses and development*. Buffalo, NY: Bearly Ltd.
- Guralnik, D.B. (Ed.). (1984). *Webster’s new world dictionary of the American Language*. New York: Simon & Schuster.
- Hadamard. J. (1949). *The psychology of invention in the mathematical field*. Princeton, NJ: Princeton University Press.
- Hagan, T. (1986). Interviewing the downtrodden. In P. Ashworth, .A.J. Giorgi, A.J.J. de

- Koning (Eds.): *Qualitative Research in Psychology*, pp.332-361. Pittsburgh: Duquesne University Press.
- Halpern, D.F. (1989). *Thought and knowledge (2<sup>nd</sup> Ed.)* Hillsdale, N.J.: Erlbaum.
- Halpern, D.F. (Ed.) (1992). *Enhancing thinking skills in the sciences and mathematics*. Hillsdale, NJ: Erlbaum.
- Hammarskjöld, D. (1964). *Markings*. ? Faber.
- Hammond, K.R., Hamm, R.M., Grassia, J. & Pearson, T. (1989). Direct comparison of the intuitive and analytical cognition in expert judgement. *IEEE Transactions on Systems, Man, & Cybernetics*. 17(5):753-770.
- Hammond, K.R. (1996). *Human judgment and social policy: Irreducible uncertainty, inevitable error, unavoidable injustice*. New York: Oxford University Press
- Hampton, C. (2008). *Practical theology*, 1(3): 374-377.
- Hannush, M.J. (2007). An existential-dialectical-phenomenological approach to understanding *cultural tilts*: Implications for multi-cultural research and practice. *Journal of Phenomenologica Psychology*, 38:7-23.
- Hanson, N.R. (1958). *Patterns of discovery*. New York: Cambridge University Press.
- Harrington, D.M. (1990). The ecology of human creativity: A psychological perspective. In M.A Runco & R.S. Albert (Eds.), *Theories of Creativity* (pp.143-169). Newbury Park, CA: Sage Publications.
- Hayden, B. (2003). *Shamans, sorcerers and saints*. Washington DC: Smithsonian Institute Books.
- Hayes, J.R. (1978). *Cognitive psychology. Thinking and creating*. Homewood, IL: Dorsey Press.
- Hayes, J.R. (1989). *The complete problem solver (2<sup>nd</sup> ed.)*. Hillsdale, NJ: Erlbaum.
- Hayes, J.R. (1989). *Cognitive processes in creativity*. In J.A. Glover, R.R. Ronning & C.R. Reynolds (Eds.), *Handbook of Creativity* (pp.135-146). New York: Plenum.
- Heale, M. (Ed.). (1961). *Documents of gestalt psychology*. Berkeley: University of California Press.
- Heath, T.L. (Ed.). (1897). *The works of Archimedes*. New York: Dover.
- Heaton, J.M. (1972). Insight in phenomenology and psycho-analysis. *Journal of the British Society for Phenomenology* 3(2):135-145.

- Heaton, J.M. (2002). Is existential psychotherapy just another approach? In *Further Existential Challenges to Psychotherapeutic Theory and Practice*. S. Du plock (Ed.) pp.20-26.
- Heidegger, M. (1962). *Being and time*, trans. J. Macquarrie & E. Robinson. New York: Harper and Row.
- Heidegger, M. (1971). *On the way to language*, trans. P. D. Hertz. New York: Harper and Row.
- Heidegger, M. (1972). *On Time and being*, trans. J. Stambaugh. New York:Harper and Row.
- Heidegger, M. (1977). *The question concerning technology and other essays*. (Trans. Lovitt, W.). New York and London: Garland Publishing Inc.
- Heidegger, M. (1979). *Nietzsche. Vol.1: The will to power as art*, trans. D.F. Krell. New York: Harper and Row.
- Heidegger, M. (1982). *The basic problems of phenomenology*, trans. A.Hofstadler. Bloomington: Indiana University Press.
- Helminiak, D.A. (1996). A scientific spirituality: the interface of psychology and theology. *International Journal for the Psychology of Religion*, 6:1-19.
- Henry, W.P., Strupp, H.H., Butler, S.F, Schacht, T.E. & Binder, J.L. (1993). Effects of training in time-limited dynamic psychotherapy: Changes in therapist behaviour. *Journal of Consulting and Clinical Psychology*, 61(3):434-440.
- Heron, J. (1990). *Helping the client*. London: Sage.
- Hersoug, A.G., Hoglend, P., Monsen, J.T. & Havik, O.E. (2001). Quality of working alliance in psychotherapy: Therapist variables and patient therapist similarity as predictors. *Journal of Psychotherapy Research*, 10(4):205-216.
- Hill,C.E., Corbett, M.M., Kanitz, B., Rios, P., Lightsey, R. & Gomez, M. (1992). Client behaviour in counseling and therapy sessions: Development of a pantheoretical measure. *Journal of Counseling Psychology*, 39:539-549.
- Hill, O.W. (1987). Intuition: Inferential heuristic or epistemic mode? *Imagination, Cognition, and Personality*, 7(2): 137-154.
- Hill, P.C, Pargament, K.I., Hood, R.W., McCullough, M.E., Swyers, J.P., Larson, D.B. & Zinnbauer, B.J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour*, 30:51-

77.

- Hillard, R.B., Henry, W.P., & Strupp, H.H. (2000). An interpersonal model of psychotherapy: linking patient and therapist developmental history, therapeutic process and types of income. *Journal of Consulting and Clinical Psychology*, 68(1):125-133.
- Ho, D.Y.F. (1995). Selfhood and identity in Confucianism, Taoism, Buddhism, and Hinduism: Contrasts with the West. *Journal for the Theory of Social Behaviour*, 25:115-139.
- Ho, D.Y.F., Chan, S.F., Peng, S.Q. & Ng, A.K. (2001). The dialogical self: Converging East-West constructions. *Culture and Psychology*, 7:393-408.
- Ho, D.Y.F, Peng, S.Q, Lai, A.C. & Chan, S.F. (2001). Indigenisation and beyond: Methodological relationalism in the study of personality across cultures. *Journal of Personality*, 69:925-953.
- Ho, D.Y.F & Ho, R.T.H. (2007). Measuring spirituality and spiritual emptiness: Towards ecumenicity and transcultural applicability. *Review of General Psychology* 11(1):62-74.
- Hodge, D.R. (2001). Spiritual assessment: A review of major qualitative methods and a new framework of assessing spirituality. *Social Work*, 46:203-214.
- Hofstadter, D.R. (1985a). On the seeming paradox of mechanising creativity. In D.R. Hofstadter (Ed.). *Metamagical Themas* (pp.526-546). New York: Basic Books.
- Hofstadter, D.R. (1985b). Variations on a theme as the crux of creativity. In D.R. Hofstadter (Ed.), *Metamagical Themas* (pp.232-259). New York: Basic Books.
- Hofstadter, D.R. (2000). Analogy as the core of cognition. In D. Gentner, K.J. Holyoak, & B.N. Kokinov, (Eds.). *Analogy: Perspectives from Cognitive Science*. Cambridge, MA: MIT Press.
- Hogarth, R.M. (2001). *Educating intuition*. Chicago: University of Chicago Press.
- Holmes, A.F. (1977). *All truth is God's truth*. Grand Rapids, Mich.: Eerdmans Publishing Co.
- Holmes, F.L. (1989). Antoine Lavoisier & Hans Krebs: Two Styles of Scientific Creativity. In D. B. Wallace & H.R. Gruber (Eds.), *Creative people at work: Twelve cognitive case studies*. (pp.44-68). New York: Oxford University Press.
- Holyoak, K.J. & Thagard, P. (1997). The analogical mind. *American Psychologist*, 52:35-44.
- Horvath, A.O. & Greenberg, L.S. (1989). Development and validation of the working alliance

- inventory. *Journal of Counseling Psychology*, 36(2):223-233.
- Humphrey, G. (1963). *Thinking: An introduction to its experimental psychology*. New York, NY: Wiley.
- Husserl, E. (1964). *The phenomenology of internal time-consciousness*, trans. J.S. Churchill, ed. M. Heidegger. Bloomington: Indiana University Press.
- Husserl, E. (1970). *The crisis of european sciences and transcendental phenomenology*, trans. D. Carr. Evanston, Ill.: Northwestern University Press.
- Husserl, E. (1983). *Ideas pertaining to a pure phenomenology and a henomenological philosophy. Book One*, trans. F. Kersten. Dordrecht, Holland. M. Nijhoff . (German Original, 1913).
- Husserl, E. (1989). *Ideas pertaining to a pure phenomenology and a phenomenological philosophy. Book Two*, trans. R. Rojcewicz & A. Schuwer. Dordrecht, Holland: Kluwer Academic Publishers. (German Original, 1952.)
- Ippolito, M.F. & Tweney, R.D. (1995). The inception of insight. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Isaak, M.I. & Just, M.A. (1995). Constraints on thinking on insights and invention. In Sternberg, R.J. & Davidson, J.E. (Eds.), *The Nature of Insight*. Cambridge, MA: MIT Press.
- Ivey, G. (1997). A listening-formulating model for psychoanalytic psychotherapy. Paper presented to the South African Institute for Psychotherapy.
- Izard, C.E. (1984). Emotion-cognition relationships and human development. In C.E. Izard, J. Kagan & R.B. Zajonc (Eds.), *Emotions, Cognition, and Behaviour* (pp.17-37). Cambridge, England: Cambridge University Press.
- Jackson, P. & Messick, S. (1965). The person, the produce and the response: Conceptual problems in the assessment of creativity. *Journal of Personality*, 33:309-329.
- Jager, V. (1996). The obstacle and threshold: Two fundamental metaphors governing the natural and human sciences. *Journal of Phenomenological Psychology* 27(1): 26-48.
- Jamison, K.R. (1993). *Touched with fire: Manic-depressive illness and the artistic temperament*. New York: Free Press.
- Janis, I.L. (1972). *Victims of groupthink*. Boston: Houghton, Mifflin.
- Jansson, D.G. & Smith, S.M. (1991). Design fixation. *Design Studies*, 12:3-11.

- Johnson, F. (2003). *Keeping faith: A sceptic's journey*. Boston: Houghton, Mifflin.
- John-Steiner, V. (1992). Creative lives, creative tensions. *Creativity Research Journal*, 5(1): 99-108.
- Johnston, W. (1974). *Silent music: The science of meditation*. London: Collins.
- Jones, G. (2003). Testing two cognitive theories of insight. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 29(5): 1017-1027.
- Joyce, A.S. & Piper, W.E. (1998). Expectancy, the therapeutic alliance, and treatment outcome in short-term individual psychotherapy. *Journal of Psychotherapy Practice and Research*, 7:236-248.
- Jung, C.G. (1926). *Psychological types*. London: Routledge and Kegan Paul.
- Jung, C.G. (1931). The aim of psychotherapy. In *Collected Works*, Vol.16. London: Routledge & Kegan Paul.
- Jung, C.G. (1946). Analytical psychology and education. In *Collected Work*, Vol. 17. London: Routledge & Kegan Paul.
- Jung, C.G. (1958). The transcendent function. In *Collected Works*, Vol. 8. London: Routledge & Kegan Paul.
- Jung, C.G. (1971). Definitions. In *Collected Works*, Vol.6. London: Routledge & Kegan Paul.
- Kabat-Zinn, J. (1991). *Full catastrophe living: How to cope with stress, pain and illness using mindfulness meditation*. New York: Bantam Doubleday, Dell Publishing.
- Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness, meditation for everyday life*. New York: Hyperion.
- Kahneman, D. & Tversky, A. (1982). The psychology of preferences. *Scientific American*, 246(1): 160-178.
- Kahneman, D., Diener, E, & Schwartz, N. (Eds.). (1999). *Well-being: The foundations of hedonic psychology*. New York: Russell Sage Foundation.
- Kantorovich, A. (1993). *Scientific discovery: Logic and tinkering*. Albany, NY: State University of New York Press.
- Kantorovich, A. & Ne'eman, Y. (1989). Serendipity as a source of evolutionary progress in science. *Studies in History and Philosophy of Science*, 20:505-529.
- Kaplan, C.A. & Simon, H.A. (1990). In search of insight. *Cognitive Psychology*, 22:374-419.
- Kaplan-Solms, K. & Solms, M. (2002). *Clinical studies in neuro psychoanalysis: Introduction*

- to a depth neuropsychology*. London: Karnac Books.
- Karl, F.R. (1979). *Joseph Conrad: The three lives*. New York: Farrar, Straus and Giroux
- Karon, B.P. (1998). Internalising the tolerant, kind, confused, and stubborn therapist and insight. *Psychotherapy in Private Practice*, 17(4):9-15.
- Keane, M. (1989). Modelling problem solving in gestalt “insight” problems. *Irish Journal of Psychology*, 10:201-215.
- Keating, T. (1994). *Intimacy with God*. New York: Crossroad Publishing Co.
- Kershaw, T.C. & Ohlsson, S. (2004). Multiple causes of difficulty in insight: The case of the nine-dot problem. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30(1):3-13.
- Kier, F.J. & Davenport, D.S. (2004). Unaddressed problems in the study of spirituality and health. *American Psychologist*, 59:53-54.
- Kierkegaard, S. (1938). *The journals*. London, Geoffrey Cumberlege: Oxford University Press.
- Kierkegaard, S. (1941). *Fear and trembling and the sickness unto death*. (Trans. with Intro. and Notes) W. Lowrie. New York: Doubleday.
- Kierkegaard, S. (1843/1959). *Diary of the seducer*. Collection Either/Or Vol. I (Trans: D.F. Swenson & L.M. Swenson), pp. 250-279. Princeton, N.J.: Princeton University Press.
- Kierkegaard, S. (1946). *The concept of dread*. Princeton N.J.: Princeton University Press.
- Kierkegaard, S. (1961). *The diary*. London: Peter Owen.
- Kierkegaard, S. (? ). Aesthetic validity of marriage. Collection Either/Or Vol. 2. (W. Laurie, Trans.) Princeton, N.J.: Princeton University Press.
- Kierkegaard, S. (1849/1989). *Sickness unto death: A Christian psychological exposition for edification and awakening by anti-climacus*. Ed. S. Kierkegaard (A. Hannay, Trans.) London: Penguin Books.
- Kinget, G.M. (1980). Objective psychology: A case of epistemological sleight-of-hand. *Journal of Phenomenological Psychology* 11(1):83-96.
- Kivlighan, D.M., Clements, L., Blake, C., Arnez, A. & Brady, L. (1993). Counsellor sex role orientation, flexibility, and working alliance formation. *Journal of Counseling and Development*, 72:95-100.
- Kivlighan, D.M., Multon, K.D. & Patton, M.J. (2000). Insight and symptom reduction in time-limited psychoanalytic counseling. *Journal of Counseling Psychology*

47(1):50-58.

- Klahr, D. & Dunbar, K. (1988). Dual space search during scientific reasoning. *Cognitive Science*, 12:1-48.
- Klein, G. (1998). *Sources of power*. Cambridge, MA: MIT Press.
- Knoblich, G., Ohlsson, S., Haider, H. & Rhenius, D. (1999). Constraint relaxation and chunk decomposition in insight problem solving. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 25(6): 1534-1555.
- Knowles, E. (Ed.). (1999). *Oxford dictionary of quotations*. Oxford: Oxford University Press.
- Koestler, A. (1964). *The act of creation*. New York: Macmillan.
- Köhler, W. (1925). *The mentality of apes*. New York: Liveright.
- Köhler, W. (1947). *Gestalt psychology*. New York: Liveright.
- Köhler, W. (1969). *The task of gestalt psychology*, Princeton, NJ: Princeton University Press.
- Köhler, W. (1971). *The selected papers of Wolfgang Köhler*, ed. M. Henle. New York: Liveright.
- Korthagen, F.A.J. (2005). The organisation in balance: Reflection and intuition as complementary processes. *Management Learning*, 36(3):371-387.
- Kosslyn, S.M. (1980). *Image and mind*. Cambridge, MA: Harvard University Press.
- Krog, A. (1998). *Country of my skull*. South Africa: Random House.
- Krog, A. (2008a). ‘... if it means he gets his humanity back ...’: The worldview underpinning the South African Truth and Reconciliation Commission. Original Paper at the University of the Western Cape.
- Krog, A. (2008b). ‘... if it means he gets his humanity back ...’: The worldview underpinning the South African Truth and Reconciliation Commission. *Journal of Multicultural Discourses*. Vol. 3, (3).
- Krog, A. (2008c). ‘This thing called reconciliation ...’: forgiveness as part of an interconnectedness-towards-wholeness. *South African Journal of Philosophy*. 27(4).
- Krog, A. (2008d). “This thing called reconciliation ... “ : forgiveness as part of an Interconnectedness –towards-wholeness. Original Paper at the University of the Western Cape.
- Kruger, D. (1979/1988). The problem of interpretation in psychotherapy: An exploratory

- study. Pretoria: Human Sciences Research Council.
- Kruger, D. (1988). *An introduction to phenomenological psychology*. Cape Town: Juta & Co, Ltd.
- Kruger, D. (1991). Hermeneutics on the interface between psychotherapy and psychological research. In R.J. van Vuuren (Ed.), *Dialogue Beyond Polemics* (pp.107-119).
- Kruger, D. (1980). The white therapist and the black client: A problem of cross-cultural contact. *Psychotherapeia*, 6(3):25-32.
- Kruger, D. (1990). The question of knowing and truth in psychology and psychotherapy. In J. Mouton and D. Joubert (Eds.) *Knowledge and Method in the Human Sciences* (pp.396-406).
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kunz, G. (1998). *The paradox of power and weakness: Levinas and an alternative paradigm for psychology*. Albany: State University of New York Press.
- Kvale, S. (1983). The qualitative research interview: A phenomenological and a hermeneutical mode of understanding. *Journal of Phenomenological Psychology*, 14(2):171-196.
- Kvale, S (1996). *Interviews: An introduction to qualitative research interviewing*. London: Sage Publications.
- Kveraga, K., Ghuman, A.S. & Bar, M. (2007). Top-down predictions in the cognitive brain. *Brain and Cognition*, 65(2):145-168.
- Lakoff, G. (1990). *Women, fire and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.
- Lam, D. & Wong, G. (1997). Prodromes, coping strategies, insight and social functioning in bipolar affective disorders. (1997). *Psychological Medicine* 27:1091-1100, Cambridge University Press.
- Lamb, D. & Easton, S.M. (1984). *Multiple discovery*. England: Avebury.
- Langan-Fox, J. & Shirley, D.A. (2003). The nature and measurement of intuition: Cognitive and behavioural interests, personality, and experiences. *Creativity Research Journal*, 15: 207-222.
- Langley, P., Simon, H.A., Bradshaw, G.L., & Zythow, J.M. (1987). *Scientific discovery*. Cambridge: MIT Press.

- Langley, P. & Jones, R. (1988). A computational model of scientific insight. In R. J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives*, (pp.177-201). Cambridge, England: Cambridge University Press.
- Lee, J.S. (1991). *Abstraction and aging: A social psychological analysis*. New York: Springer-Verlag.
- Lefort, C. (2006). The permanence of the theologico-political? In *Political Theologies: Public Religions in a Post-Secular World*. (Eds. H. de Vries, & L.E. Sullivan). New York, NY: Fordham University Press.
- Lehman, H.C. (1953). *Age and achievement*. Princeton, NJ: Princeton University Press.
- Lennon, D. (2000). *The eyes of the heart: A spirituality of the senses*. Triangle, London: SPCK.
- Levenson, E. (1998). Awareness, insight, and learning. *Journal of Contemporary Psychoanalysis*, 34:239-249.
- Levinas, E. (1967). Intuition of essences. In J.J. Kockelmans (Ed.), *Phenomenology* (pp.83-105). Garden City, N.Y.: Doubleday.
- Levinas, E. (1969/1979). *Totality and infinity: An essay on exteriority*. (Alfonso Lingis, Trans.). The Hague: Martinus Nijhoff Publishers.
- Levitt, H.M., Frankel, Z., Hiestand, K., Ware, K., Bretz, K., Kelly., R. McGhee., S. Nordtvedt, R.T. & Raina, K. (2004). The transformational experience of insight: A life-changing event. *Journal of Constructivist Psychology*, 17: 1-26.
- Lewicki, P., Czyzewska, M. & Hoffman, H. (1987). Unconscious acquisition of complex procedural knowledge. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13:523-530.
- Lewicki, P., Hill, T. & Czyzewska, M. (1992). Non-conscious acquisition of information. *American Psychologist*, 47: 796-801.
- Lewis, C.S. (1963). *The four loves*. London: Fontana Books.
- Lewis, M.K. (2002). *Multicultural health psychology: Special topics acknowledging diversity*. Boston: Allyn & Bacon.
- Lewis-Williams, J.D. (1986). The last testament of the Southern San. *South African Archaeological Bulletin*, 41:10-11.
- Lewis-Williams, J.D. (2002). *The mind in the cave*. London: Thames & Hudson.

- Libet, B. (1985). Unconscious cerebral initiative and the role of conscious will in voluntary action. *Behavioural and Brain Sciences*, 8(4):529-539.
- Lieberman, M., Yalom, I. & Miles, M. (1973). *Encounter groups: First facts*. New York: Basic Books.
- Lindauer, M.S. (1993a). The old-age style and its artists. *Empirical Studies and the Arts*, 11:135-146.
- Lindauer, M.S. (1993b). The span of creativity among long-lived historical artists. *Creativity Research Journal*, 6:231-239.
- Lindsay, P.H. & Norman, D.A. (1977). *Human information processing*. (2<sup>nd</sup> ed.). New York: Academic Press.
- Linn, D., Linn, S.F. & Linn, M. (1994). *Good goats: Healing our image of God*. New York: Paulist Press.
- Lipe, A.W. (2002). Beyond therapy: Music, spirituality, and health in human experience: A review of the literature. *Journal of Music Therapy*, 39:209-240.
- Lockhart, R.S., Lamon, M. & Gick, M. (1988). Conceptual transfer in simple insight problems. *Memory & Cognition*. 16:36-44.
- Lonergan, B.J.F. (1983). *Insight: A study of human understanding*. London: Darton Longman & Todd.
- Long, D.L. & Graesser, A.C. (1988). Wit and humour in discourse processing. *Discourse Processes*, 11:35-60.
- Lowen, A. (1990). *Spirituality of the body: Bioenergetics for grace and harmony*. Riverside, NJ: Simon & Schuster.
- Lubart, T.I. & Sternberg, R.J. (1998) Lifespan creativity: An investment theory approach. In C.Adams-Price (Ed.), *Creativity and Aging: Theoretical and Empirical Approaches*. New York: Springer-Verlag.
- Lubart, T.I. (2000-2001). Models of the creative process: Past, present and future. *Creativity Research Journal*, 13(3&4):295-308.
- Luborksy, L., Crits-Christoph, P., Alexander, L., Margolis, M. & Cohen, M. (1983). Two helping alliance methods for predicting outcomes of psychotherapy, counting signs vs. global rating method. *Journal of Nervous and Mental Disorder*, 171(8): 480-491.

- Luchins, A.S. (1942). Mechanisation in problem solving: The effect of einstellung. *Psychological Monographs*, 54 (6), whole no.248.
- Ludwig, A.M. (1966). The formal characteristics of therapeutic insight. *American Journal of Psychotherapy*, 20(2): 308-318.
- Ludwig, A.M. (1995). *The price of greatness: Resolving the creativity and madness controversy*. New York: Guilford Press.
- Lykken, D.T. (1998). The genetics of genius. In A. Steptoe (Ed.), *Genius and the Mind: Studies of Creativity and Temperament in the Historical Record*. (pp 15-37). New York: Oxford University Press.
- MacCrimmon, K.R. & Wehrung, D.A. (1985). A portfolio of risk measures. *Theory and Decision*, 19(1): 1-29.
- MacGregor, J.N., Ormerod, T.C. & Chronicle, E.P. (2001). Information processing and insight: A process model of performance on the nine-dot and related problems. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 27(1): 176-201.
- Mach, E. (1896). On the part played by accident in invention and discovery. *Monist*, 6: 161-175.
- MacKay, D. (1979). *Human science and human dignity*. London: Hodder & Stoughton Ltd.
- MacKinnon, D.W. (1962). The Nature and Nurture of Creative Talent. *American Psychologist*, 17: 484-495.
- Maier, N.R.F. (1931). Reasoning in humans: II. The solution of a problem and its appearance in consciousness. *Journal of Comparative and Physiological Psychology*, 12:181-194.
- Malan, D.H. (1979). *Individual psychotherapy and the science of psycho-dynamics*. Fakenham, Norfolk: Butterworth.
- Malkiel, B.G. (1985). *A random walk down Wall Street* (4<sup>th</sup> ed.). New York: Norton.
- Mallinckradt, B. & Nelson, M.L. (1991). Counselor training level and the formation of the psychotherapeutic alliance. *Journal of Counseling Psychology*, 38(2):133-138.
- Malpass, R.S. & Devine, P.G. (1981). Guided memory in eyewitness identification. *Journal of Applied Psychology*, 3:343-350.
- Malthus, T.R. (1826). *An essay on the principle of population*. (6<sup>th</sup> ed., 2 vols). London: Murray.

- Manis, J.G. (1951). Some academic influence upon publication productivity. *Social Forces*, 29:267-272.
- Markova, I.S. & Berrios, G.E. (1995). Insight in clinical psychiatry: A new model. *The Journal of Nervous and Mental Disease* 183(12):743-751.
- Marr, D. (1982). *Vision*. San Francisco: Freeman.
- Martin, D.J., Garske, J.P., & Davis, M.K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 86(3):438-450.
- Martindale, C. (1986). Aesthetic evolution. *Poetics*, 15:439-473.
- Martindale, C. (1989). Personality, situation and creativity. In J.A. Glover, R.R. Ronning, & C.R. Reynolds (Eds.), *Handbook of Creativity* (pp 211-232). New York: Plenum Press.
- Martindale, C. (1990). *The clockwork muse: The predictability of artistic styles*. New York: Basic Books.
- Martindale, C. (1995). Creativity and connectionism. In S.M. Smith, T.B. Ward, & R.A. Finke (Eds.), *The Creative Cognition Approach*, (pp249-268). Cambridge, MA: MIT Press.
- Martinsen, Ø. (1995). Cognitive styles and experience in solving insight problems: Replication and extension. *Creativity Research Journal*, 8(3): 291-298.
- Marx, K. (1964). *The economic and philosophical manuscripts of 1844*. New York: International Publishers. (Released by Soviet researchers 1932.)
- Maslow, A.H. (1968). *Towards a psychology of being*. New York, N.Y.: D. van Nostrand Co.
- Matthews, M. (2000). *Both alike to thee: The retrieval of the mystical way*. London: SPCK.
- May, G.G. (2004). *The dark night of the soul: A psychiatrist explores the connection between darkness and spiritual growth*. New York: HarperCollins.
- May, R. (1950). *The meaning of anxiety*. New York: Ronald Press.
- May, R., Angel, E. & Ellenberger, H.F. (Eds.). (1958/1994). *Existence*. Basic Books: Northvale, NJ.
- May, R. (1958). Contributions of existential psychotherapy. In R. May, E. Angel and H.F. Ellenberger (Eds.) *Existence: a New Dimension in Psychiatry and Psychology*. New York: Basic Books.
- May, R. (1969). The emergence of existential psychology. In R. May (Ed.). *Existential*

- Psychology* (pp. 11-51). New York, N.Y.: Random House.
- May, R. (1964). On the phenomenological bases of psychotherapy. *Review of Existential Psychology and Psychiatry*, IV (1): 22-36.
- Mayer, R.E. (1992). *Thinking, problem solving, cognition*. (2<sup>nd</sup> Ed.). New York: Freeman.
- Mayer, R.E. (1995). The Search for insight: Grappling with gestalt psychology's unanswered questions. In Sternberg, R.J. & Davidson, J.E. (Eds.). *The Nature of Insight*. Cambridge, MA: MIT Press.
- Mearns, D. (1994). *Developing person-centred counselling*. London: Sage.
- Mednick, S. (1962). The associative basis of the creative process. *Psychological Review*, 69:220-232.
- Merleau-Ponty, M. (1962). *Phemenology of perception*, trans. C. Smith. London: Routledge and Kegan Paul.
- Merleau-Ponty, M. (1964). *Signs*, trans. R.C. McCleary. Evanston, Ill.: Northwestern University Press.
- Merleau-Ponty, M. (1968). *The visible and the invisible*, trans. A. Lingis. Evanston, Ill.: Northwestern University Press. (French Original 1964.)
- Merleau-Ponty, M. (1973). *The prose of the world*, trans. J. O'Neill, ed.C. Lefort. Evanston, Ill.: Northwestern University Press.
- Merton, R.K. (1961). Singletons and multiples in scientific discovery: A chapter in the sociology of science. *Proceedings of the American Philosophical Society*, 105:470-486.
- Merton, T. (1962). *New seeds of contemplation*. New York: New Directions.
- Merton, T. (1985). *The hidden ground of love: Letters on religious experience and social concerns*. (Ed. W.H. Shannon). USA: Farrar, Straus, Giroux.
- Metcalfe, J. (1986a). Feeling of knowing in memory and problem solving. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 12:288-294.
- Metcalfe, J. (1986b). Premonitions of insight predict impending error. *Journal of Experimental Psychology; Learning, Memory, and Cognition*, 12(4): 623-634.
- Metcalfe, J. & Wiebe, D. (1987). Intuition in insight and non-insight problem solving. *Memory & Cognition*, 15:238-246.

- Metcalfe, J. (1995). In the foreward of *The Nature of Insight*. Sternberg, R.J. & Davidson, J.E (Eds.).
- Milgram, R.M. (1990). Creativity: An idea whose time has come and gone? In M.A. Runco & R.S. Albert (Eds.), *Theories of Creativity*, (pp.215-233). Newbury Park, CA: Sage Publications.
- Miller, A.I. (1989). Imaginary and intuition in creative scientific thinking: Albert Einstein's invention of the special theory of relativity. In D.B. Wallace & H.E. Gruber (Eds.), *Creative People at Work: Twelve Cognitive Case Studies* (pp.25-43). New York: Oxford University Press.
- Miller, A.I. (1992). Scientific creativity: A comparative study of Henri Poincaré and Albert Einstein. *Creativity Research Journal*, 5,385-418.
- Miller, W.R. & Thoresen, C.E. (1999). Spirituality and health. In W.R. Miller (Ed.), *Integrating spirituality into treatment: Resources of practitioners* (pp.3-18). Washington, DC: American Psychologic Association.
- Mitchell, D. & Wiseman, J. (Eds.). (1997). *The gethsemani encounter: A dialogue on the spiritual life by Buddhist and Christian monastics*. New York: Continuum
- Mohanty, J.N. (2000). *The self and its others: Philosophical essays*. Oxford: Oxford University Press.
- Mohl, P.C., Martinez, D., Ticknor, C., Huang, M. & Cordell, L. (1991). Early dropouts from psychotherapy. *Journal of Nervous and Mental Disorders*, 179(8):478-481.
- Morgan, R.W., Luborsky, L., Crits-Christoph, P., Curtis, H. & Solomon, J. (1982). Predicting the outcomes of therapy, using the Penn helping alliance rating method. *Archives of General Psychiatry*, 39:397-402.
- Moore, B.E. & Fine, B.D. (1990). *Psychoanalytic terms and concepts*. New Haven, CT: Yale University Press.
- Mori, N. (1996). A factor related to the strength of an "Aha!" experience. *Japanese Psychological Research*, 38(2): 85-89.
- Morris, W. (Ed.). (1969). *The American heritage dictionary of the English language*. Boston: American Heritage.
- Moss, E.L. & Dobson, K.S. (2006). Psychology, spirituality, and end of life care: An ethical integration? *Canadian Psychology*, 47(4):284-292.

- Moustakas, C. (1994). *Phenomenological research methods*. London: Sage Publications.
- Mouton, J. (2001). *How to succeed in your masters and doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik Publishers.
- Mumford, M.D., Supinski, E.P., Threlfall, K.V. & Baughman, W.A. (1996). Process-based measures of creative problem-solving skills: III. Category selection. *Creativity Research Journal* 9:395-406.
- Mumford, M.D., Supinski, E.P., Baughman, W.A., Costanza, D.P. & Threlfall, K.V. (1997). Process-based measures of creative problem-solving skills: v. overall prediction. *Creativity research Journal*, 10:73-85.
- Myers, D.G. (2002). *Intuition: Its powers and perils*. New Haven, CT: Yale University Press.
- Myers, I., McCaulley, M.H., Quenk, N.L., & Hammer, A.L. (1998). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator* (2<sup>nd</sup> ed.). Palo Alto: Consulting Psychologists Press.
- Myss, C. (1997). *Anatomy of the spirit: The seven steps of power and healing*. London: Bantam Books.
- Nairn, R. (1998). *Diamond mind: psychology of meditation*. Cape Town: Kairon Press.
- Newell, A. & Simon, H.A. (1972). *Human solving problem*. Englewood Cliffs, NJ: Prentice Hall.
- Ng, A.K., Ho, D.Y.F., Wong, S.S. & Smith, I. (2003). In search of the good life: A cultural odyssey in the East and West. *Genetic, Social, and General Psychology Monographs*, 129:317-363.
- Nhat Hanh, T. (1995). *Living Buddha, Living Christ*. New York: Riverhead Books.
- Nickerson, R.S., Perkins, D.N. & Smith, E.E. (1995). *The teaching of thinking*. Hillsdale, NJ: Erlbaum.
- Nolan, A. (2006). *Jesus today: a spirituality of radical freedom*. Cape Town: Double Storey Books, Juta & Co.
- Norcross, J.C. (2002). *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients' needs*. New York: Oxford University Press.
- O'Connor, L.E., Edelstein, S., Berry, J.W. & Weiss, J. (1994). Changes in the patient's level of insight in brief psychotherapy: Two pilot studies. *Journal of Psychotherapy*,

31(3):533-544.

- Ogden, T.H. (1994). The analytic third: Working with intersubjective clinical facts. *International Journal of Psycho-Analysis*, 75:3-19.
- Ogrodniczuk, J.S. & Piper, W.E. (1999). Measuring therapist technique in psychodynamic psychotherapies, development and use of a new scale. *Journal of Psychotherapy Practice and Research*, 8(2):142-154.
- Ohlsson, S. (1984a). Restructuring revisited: I. Summary and critique of the gestalt theory of problem solving. *Scandinavian Journal of Psychology*, 25:65-78.
- Ohlsson, S. (1984b). Restructuring revisited: II. An information processing theory of restructuring and insight. *Scandinavian Journal of Psychology*, 25:117-129.
- Ohlsson, S. (1992). Information-processing explanations of insight and related phenomena. In M. Keane & K. Gilhooley (Eds.), *Advances in the Psychology of Thinking*. London: Harvester-Wheatsheaf.
- Olton, R.M. (1979). Experimental studies of incubation: Searching for the elusive. *Journal of Creative Behaviour*, 13(1): 9-22.
- Olton, R.M. & Johnson, D.M. (1976). Mechanisms of incubation in creative problem solving. *American Journal of Psychology*, 89(4): 617-630.
- Osbeck, L.M. (1999). Conceptual problems in the development of a psychological notion of "intuition". *Journal for the Theory of Social Behaviour* 29(3): 229-250.
- Osborn, A.F. (1963). *Applied imagination*. New York: Scribners.
- Otto, R. (1958). *The idea of the holy: An enquiry into the non-rational factor in the idea of the divine and its relation to the rational*, trans. J.W. Harvey, London: Oxford University Press (original German edition 1917).
- Pacini, R & Epstein, S. (1999). The relation of rational and experiential information processing styles to personality, basic beliefs, and the ratio-bias phenomenon. *Journal of Personality and Social Psychology*, 76(6): 972-987.
- Panksepp, J., Nelson, E. & Bekkedal, M. (1997). Brain systems for the mediation of social separation-distress and social-reward: Evolutionary antecedents and neuropeptide intermediaries, *Annals of the New York Academy of Sciences* 807:78-100
- Panksepp, J. (1998). *Journal of consciousness studies*: 566-582.
- Paranjpe, A.C. (1998). *Self and identity in modern psychology and Indian thought*. New York:

Plenum Press.

Pargament, K.I. (1997). *The psychology of religion and coping*. New York: The Guilford Press.

Pargament, K.I. & Park, C.I. (1995). Merely a defence? The variety of religious means and ends. *Journal of Social Issues*, 51:13-32.

Park, C.L. & Cohen, L. (1993). Religious and non-religious coping with the death of a friend. *Cognitive Therapy and Research*, 17:561-577.

Pattison, S. (2007). *Seeing Things: Deepening relations with visual artefacts*. London, SCM Press.

Pea.R. & Kurland, D.M. (1984). On the cognitive effects of learning computer programming. *New Ideas in Psychology*, 2:137-168.

Penrose, R. (1965). Gravitational collapse and space-time singularities. *Phys. Rev. Lett.*, 14, 57-59.

Penrose, R. (1999). *The emperor's new mind: Concerning computers, minds and laws of physics*. Oxford: Oxford University Press.

Penrose, R. (2004) *The road to reality*. London: Vintage.

Penrose, R. (2005). *Shadows of the mind: A search for the missing science of consciousness*. London: Vintage.

Perkins, D.N. (1981). *The mind's best work*. Cambridge: Harvard University Press.

Perkins, D.N. (1988). The possibility of invention. In R.J. Sternberg (Ed.), *The Nature of Creativity* (pp.362-385). Cambridge, England: Cambridge University Press.

Perkins, D.N. (1990). The nature and nurture of creativity. In B.F. Jones and L. Idol (Eds.), *Dimensions of Thinking and Cognition Instruction*. Hillsdale, NJ: Erlbaum.

Perkins, D.N. (1992). The topography of invention. In R.J.Weber & D. N. Perkins (Eds.), *Inventive Minds: Creativity in Technology*. New York: Oxford University Press.

Perkins, D.N. (1995). Insight in minds and genes. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.

Peterson, C. & Park, N. (2004). Classification and measurement of character strengths: Implications for practice. In P.A. Linley & S. Joseph (Eds.). *Positive psychology in practice* (pp.433- 446). New Jersey: Wiley.

Petitmengin-Peugeot, C. (1999). The intuitive experience. *Journal of Consciousness Studies*,

6(2-3):43-77.

- Pierce, B.J. (2005). *We walk the path together*. New York: Orbis Books.
- Piper, W.E., Hassan, F.A., McCallum, M., Joyce, A.S. & Ogrodniczuk, J.S. (1999). Follow-up findings for interpretive and supportive forms of psychotherapy and patient personality variables. *Journal of Consulting and Clinical Psychology* Vol. 67, No.2:267-273.
- Planck, M. (1949). *Scientific autobiography and other papers*. (F. Gaynor, Trans.) New York: Philosophical Library.
- Poincaré, H. (1913). Mathematical creation. In *The Foundations of Science*. (G.H. Halstead, Trans.) New York: Science Press.
- Poincaré, H. (1921). *The foundations of science: Science and hypothesis, the value of science, science and method*. (G.B. Halstead, Trans.). New York: Science Press.
- Poincaré, H. (1952). *Science and method*. New York: Dover (original work published 1908).
- Polanyi, M. (1967). *The tacit dimension*. London: Routledge & Kegan Paul.
- Polanyi, M. (1978). *Personal knowledge: Towards a post-critical philosophy*. London: Routledge & Kegan Paul.
- Polkinghorne, D.E. (1989). Phenomenological research methods. In R.S. Valle and S. Halling (Eds.). *Existential-Phenomenological Perspectives in Psychology. Exploring the Breadth of Human Experience*. (pp. 41-60). New York: Plenum Press.
- Pols, A.J.K. (2002?). *Insight in problem solving*. Unpublished Thesis, Technische Universiteit Delft. pdf file.
- Polya, G. (1965). *Mathematical discovery: Vol. 2. On understanding, learning, and teaching problem solving*. New York: Wiley.
- Popper, K. (1968). *Logic of scientific discovery*. New York: Harper & Row.
- Posner, M.I. (1973). *Cognition: An introduction*. Glenview IL: Scott, Foresman.
- Pretz, J.E. & Totz, K.S (2007). Measuring individual differences in affective, heuristic and holistic intuition. Available online at [www.sciencedirect.com](http://www.sciencedirect.com). *Personality and Individual Differences* 43 (2007):1247-1257.
- Price, P.B. & Jones, E.E. (1998). Examining the alliance using the psychotherapy process Q-set. *Psychotherapy*, 25(3):392-404.
- Raidl, M-H. & Lubart, T.I. (2000). An empirical study of intuition and creativity. *Imagination*,

- Cognition and Personality*, 20(3): 217-230.
- Raskin, E.A. (1936). Comparison of scientific and literary ability: A biographical study of eminent scientists and men of letters of the nineteenth century. *Journal of Abnormal and Social Psychology*, 31:20-35.
- Rea, B.D. (2001). Finding our balance: The investigation and clinical application of intuition. *Psychotherapy* 38(1).
- Reason, P. & Rowan, J. (1981). *Human inquiry*. Chichester: John Wiley.
- Reber, A.S. (1989). Implicit learning and tacit knowledge. *Journal of Experimental Psychology: General* 118(3): 219-235.
- Reik, T. (1954). *On listening with the third ear: The inner experience of a psychoanalyst*. New York, NY: Farrar, Straus
- Resnick, L.B. (1989). Introduction. In L.B. Resnick (Ed.), *Knowing, Learning, and Instruction: Essays in Honour of Robert Glaser*. (pp.1-24). Hillsdale, NJ: Erlbaum.
- Reyna, V.F. & Farley, F. (2006). Risk and rationality in adolescent decision making: Implications for theory, practice, and public policy. *Psychological Science in the Public Interest*, 7:1-44.
- Robinson, J.A.T. (1977). *Exploration into God*. Oxford: Mowbray & Co. Ltd.
- Roe, A. (1952). *The making of a scientist*. New York: Dodd, Mead.
- Roediger, H.L.I. (1980). Memory metaphors in cognitive psychology. *Memory and Cognition*, 8:231-246.
- Rogers, C.R. (1961). *On becoming a person*. Boston: Houghton Mifflin.
- Rogers, C.R. (1967/1975). *On becoming a person: A therapist's view of psychotherapy*. Trowbridge: Redwood Burn Ltd.
- Rojcewicz, R. & Lutgens, V. (1996). A genetic (psychological) phenomenology of perception. *Journal of Phenomenological Psychology* 27(2):117-145.
- Rojcewicz, S.J. & Rojcewicz, R. (1997). The "human" voices in hallucinations. *The Journal of Phenomenological Psychology* 28(1):1-41.
- Rooney, K. (Ed.), (1999). *Encarta world english dictionary*. London: Bloomsbury.
- Ross, C.F.J. (1992). The intuitive function and religious orientation. *Journal of Analytical Psychology* 37: 83-103.
- Rossano, M.J. (2006). The religious mind and the evolution of religion. *Review of General*

- Psychology*, 10(4):346-364.
- Roszak, (1992). *The voice of the earth: An exploration of eco-psychology*. New York: Simon and Schuster.
- Roth, A. & Fonagy, P. (2006). *What works for whom?* The Guilford Press, New York.
- Rothenberg, A. (1979). *The emerging goddess: the creative process in art, science, and other fields*. Chicago: University of Chicago Press.
- Rothenberg, A. (1986). Artistic creation as stimulated by superimposed versus combined-composite visual images. *Journal of Personality and Social Psychology*, 50:370-381.
- Rothenberg, A. (1987). Einstein, Bohr, and creative thinking in science. *History of Science*, 25:147-166.
- Rothenberg, A. (1990). *Creativity and madness: New findings and old stereotypes*. Baltimore: John Hopkins University Press.
- Roy, M.C., Gauvin, S. & Limayem, M. (1996). Electronic group brain-storming: The role of feedback on productivity. *Small Group Research*. 27:215-247.
- Rubenson, D.L. & Runco, M.A. (1992). The psychoeconomic approach to creativity. *New Ideas in Psychology*, 10(2): 131-147.
- Runco, M.A. (1990). Implicit theories and ideational creativity. In M.A.Runco & R.S Albert (Eds.), *Theories of Creativity* (pp.234-252). Newbury Park, CA: Sage Publications.
- Ryff, C.D. & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69:719-723.
- Sandkühler, S. & Bhattacharya, J. (2008). Deconstructing insight: EEG correlates of insight for problem solving. *PLoS ONE* 3(1): e1459.doi:10.1371/journal.pone.0001459.
- Sardello, R.J. (1975). Hermeneutical reading: An approach to the classic texts of psychology. In A. Giorgi, C. Fischer and E. Murray (Eds.): *Duquesne Studies in Phenomenological Studies* Vol.II. pp.273-280. Pittsburgh: Duquesne University Press.
- Saugstad, P. & Raaheim, K. (1957). Problem solving and the availability of functions. *Acta Psychologica*, 13:263-278.
- Saunders, S.M. (1999). Client's assessment of the affective environment of the psychotherapy session: Relationship to session quality and treatment effectiveness. *Journal of Clinical Psychology*, 55(5):597-605.
- Saunders, S.M., Howard, K.I. & Orlinsky, D.E. (1989). The therapeutic bond scales:

- Psychometric characteristics and relationship to treatment effectiveness. *Journal of Consulting and Clinical Psychology*, 1(4):323-330.
- Schank, R.C. (1986). *Explanation patterns. Understanding mechanically and creatively*. Hillsdale, NJ: Erlbaum.
- Scheerer, M (1963). Problem-solving. *Scientific American*, 208:118-128.
- Schilling, M.A. (2005). A “small-world” network model of cognitive insight. *Creativity Research Journal* 17(2&3):131-154.
- Schneider, K.J. (1998b). Towards a science of the heart: Romanticism and the revival of psychology. *American Psychologist*, 53:277-289.
- Schneider, K.J. (1999). Clients deserve relationships, not merely “treatments”. *American Psychologist*, 54:206-207.
- Schneier, S. (1989). The imagery in movement method: A process tool bridging psychotherapeutic and transpersonal inquiry. In *Existential-Phenomenological Perspectives in Psychology: Exploring the Breadth of Human Experience*. (Eds. R.S. Valle & S. Halling). New York: Plenum Press.
- Schooler, J.W. & Engstler-Schooler, T.Y. (1990). Verbal overshadowing of visual memories: Some things are better left unsaid. *Cognitive Psychology*, 22:36-71.
- Schooler, J.W., McCleod, C., Brooks, K & Melcher, J. (1993). [Individual differences in solving insight and analytical problems]. Unpublished raw data.
- Schooler, J.W. & Melcher, J. (1993). *The ineffability of insight*. Paper presented at the Annual Meeting of the Psychonomic Society. Washington, D.C.
- Schooler, J.W., Ohlsson S., & Brooks, K. (1993). Thoughts beyond words: When language overshadows insight. *Journal of Experimental Psychology: General*, 122:166-183.
- Schooler, J.W., Fallshore, M. & Fiore, S.M. (1995). Putting insight into perspective. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Schooler, J.W. & Melcher, J. (1996). The ineffability of insight. In S. Smith, T. Ward & R. Finke (Eds.), *The Creative Cognition Approach*. Cambridge: MIT Press.
- Schweitzer, R. (1996). A phenomenological study of dream interpretation among the Xhosa-

- speaking people in rural South Africa. *Journal of Phenomenological Psychology* 27(1):72-96.
- Scruton, R. (1997). *The aesthetics of music*. Oxford: Clarendon.
- Seeman, T.E., Dubin, L.F. & Seeman, M. (2003). Religiosity/spirituality and health: A critical review of the evidence for biological pathways. *American Psychologist*, 58:53-63.
- Segal, J.W., Chipman, S.F., & Glaser, R. (Eds.) (1985). *Thinking and learning Skills: Vol. 1. Relating instruction to research*. Hillsdale, NJ: Erlbaum.
- Segalowitz, S.J. (2007). Knowing before we know: Conscious versus pre-conscious top-down processing and a neuroscience of intuition. *Brain and Cognition* 65:143-144.
- Seifert, C.M., Meyer, D.E., Davidson, N., Patalano, A.L. & Yaniv, I. (1995). Demystification of cognitive insight: Opportunistic assimilation and the prepared-mind perspective. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Sexton, H.C., Hembre, K. & Kvarme, G. (1996). The interaction of the alliance and therapy microprocess: A sequential analysis. *Journal of Consulting and Clinical Psychology*, 64(3):471-480.
- Shapiro, G. (1986). *A skeleton in the dark room: Stories of serendipity in science*. San Francisco: Harper & Row.
- Shapiro, K.J. (1980). Towards a phenomenology of reflection: Bodily modes of apprehension of structure. *Journal of Phenomenological Psychology* 11(1):1-26?
- Shepherd, J. & Wicke, P. (1997). *Music and cultural theory*. Cambridge: Polity Press.
- Shrader, D. (1980). The evolutionary development of science. *Review of Metaphysics*, 34:273-296.
- Siderits, M.A. (1981). Rehearsal in reverie: Dream exploration as the equivalent of play. *Journal of Phenomenological Psychology*, 12(1):87-105.
- Siegler, R.S. (1987). The perils of averaging data over strategies: An example from children's addition. *Journal of Experimental Psychology: General*, 116:250-264.
- Siegler, R.S. (2000). Unconscious insights. *Current Directions in Psychological Science*, 9(3):79-83.
- Siegler, R.S. & Stern, E. (1998). A microgenetic analysis of conscious and unconscious strategy discoveries. *Journal of Experimental Psychology: General*, 127:377-397.

- Simon, H.A. (1966). *Scientific discovery and the psychology of problem solving in mind and cosmos: Essays in contemporary science and philosophy*. Pittsburgh, PA: University of Pittsburgh Press.
- Simon, H.A. (1973). Does scientific discovery have a logic? *Philosophy of Science*, 40:471-480.
- Simon, H.A. (1977). *Boston studies in the philosophy of science: Vol.54. Models of discovery*. Boston: Reidel.
- Simon, H.A. (1986). The information processing explanation of gestalt phenomena. *Computers in Human Behaviour*, 2:241-255.
- Simon, R.J. (1974). The work habits of eminent scientists. *Sociology of Work and Occupations*, 1:327-335.
- Simonton, D.K. (1976). Biographical determinants of achieved eminence: A multivariate approach to the Cox data. *Journal of Personality and Social Psychology*, 33:218-226.
- Simonton, D.K. (1976). Philosophical eminence, beliefs and zeitgeist: An individual-generational analysis. *Journal of Personality and Social Psychology*, 34:630-640.
- Simonton, D.K. (1979). Multiple discovery and invention: Zeitgeist, genius, or chance? *Journal of Personality and Social Psychology*, 37:1603-1616.
- Simonton, D.K. (1980). Intuition and analysis: A predictive and explanatory model. *Genetic Psychology Monographs*, 102:3-60.
- Simonton, D.K. (1984a). Artistic creativity and interpersonal relationships across and within generations. *Journal of Personality and Social Psychology*, 46:1273-1286.
- Simonton, D.K. (1984b). Creative productivity and age: A mathematical model based on a two-step cognitive process. *Developmental Review*, 4:77-111.
- Simonton, D.K. (1984c) *Genius, creativity, and leadership: Historio-metric enquiries*. Cambridge MA: Harvard University Press.
- Simonton, D.K. (1987a). Developmental antecedents of achieved eminence. *Annals of Child Development*, 5:131-169.
- Simonton, D.K. (1987b). Multiples, chance, genius, creativity, and zeitgeist. In D.N. Jackson & J.P. Rushton (Eds.), *Scientific Excellence: Origins and Assessment* (pp.98-128). Newbury Park, CA: Sage Publications.
- Simonton, D.K. (1988a). *Scientific genius: A psychology of science*. Cambridge, England:

Cambridge University Press.

Simonton, D.K. (1988b). Creativity, leadership, and chance. In R.J. Sternberg (Ed.), *The Nature of Creativity* (pp.386-426). Cambridge, England: Cambridge University Press.

Simonton, D.K. (1988c). *Scientific genius: A psychology of science*. Cambridge, England: Cambridge University Press.

Simonton, D.K. (1989a). Age and creative productivity: Nonlinear estimation of an information-processing model. *International Journal of Aging and Human Development*, 29:23-37.

Simonton, D.K. (1989b). The swan-song phenomenon: Last-works effects for a 172 classical composers. *Psychology and Ageing*, 4:42-47.

Simonton, D.K. (1991a). Career landmarks in science: Individual differences and interdisciplinary contrasts. *Developmental Psychology*, 27:119-130.

Simonton, D.K. (1991b). Emergence and realisation of genius: The lives and works of 120 classical composers. *Journal of Personality and Social Psychology*, 61:829-840.

Simonton, D.K. (1992a). Leaders of American psychology, 1879-1967: Career development, creative output, and professional achievement. *Journal of Personality and Social Psychology*, 62:5-17.

Simonton, D.K. (1992b). Social context of career success and course for 2026 scientists and inventors. *Personality and Social Psychology Bulletin*, 18:452-463.

Simonton, D.K. (1994). *Greatness: Who makes history and why*. New York: Guilford Press.

Simonton, D.K. (1995). Foresight in insight? A Darwinian answer. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.

Simonton, D.K. (1997a). Creative productivity: A predictive and explanatory model of career trajectories and landmarks. *Psychological Review*, 104:66-89.

Simonton, D.K. (1999a). Creativity and genius. In L. Pervin & O. John (Eds.), *Handbook of Personality, Theory and Research* (2<sup>nd</sup> ed., pp 629-652). New York: Guilford Press.

Simonton, D.K. (1999b). *Origins of genius: Darwinian perspectives on creativity*, New York: Oxford University Press.

Simonton, D.K. (1999c). Talent and its development: An emergenic and epigenetic model. *Psychological Review* 106:435-457.

- Simonton, D.K. (2000). Creativity: Cognitive, personal, developmental, and social aspects. *American Psychologist* 55(1): 151-158.
- Singley, M.K. & Anderson J.R. (1989). *The transfer of cognitive skill*. Cambridge, MA: Harvard University Press.
- Sloman, S. (1996). The empirical case for two systems of reasoning. *Psychological Bulletin*, 119(3): 3-22.
- Smallwood, J. & Schooler, J.W. (2006). The restless mind. *Psychological Bulletin*. 132(6): 946-958.
- Smith, J.A., Harre, R. & van Langenhove, L. (1995). *Rethinking methods in psychology*. London: Sage.
- Smith, S.M., Glenberg, A. & Bjork, R.J. (1978). Environmental context and human memory. *Memory and Cognition*, 6:342-353.
- Smith, S.M. (1995). Getting into and out of mental ruts: A theory of fixation, incubation and insight. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Smith, S.M., Ward, T.B. & Finke, R.A. (1995). *The creative cognition approach*. Cambridge: MIT Press.
- Smith, S.M. & Dodds, R.A. (1999). Incubation. In M.A. Runco & S.R. Pritzker (Eds.), *Encyclopedia of Creativity* (Vol.2, pp.39-43). San Diego, CA: Academic Solms, M. & Turnbull, O. (2002). *The brain and the inner world. An introduction to the neuroscience of subjective experience*. New York: Other Press.
- Solso, R. (1988). *Cognitive psychology*. Boston: Allyn & Bacon.
- Sonenshein, S. (2007). The role of construction, intuition, and justification in responding to ethical issues at work: the sensemaking-intuition model. *Academy of Management Review* 2(4):1022-1040.
- Spilka, B. (1993). *Spirituality: Problems and directions in operationalizing a fuzzy concept*. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Stein, E. (1986). *Life in a Jewish family: Her unfinished autobiographical account*. Washington, DC: ICS Publications.
- Stein, E. & Lipton, P. (1989). Where guesses come from: Evolutionary epistemology and the

- anomaly of guided vision. *Biology and Philosophy*, 4:33-56.
- Stern, J. (2004). *Terror in the name of God: Why religious militants kill*. New York: HarperCollins.
- Sternberg, R.J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York: Cambridge University Press.
- Sternberg, R.J. (1986). A triarchic theory of intellectual giftedness. In R.J. Sternberg & J. Davidson (Eds.), *Conceptions of Giftedness*. Cambridge University Press.
- Sternberg, R.J. (1988a). A three-facet model of creativity in R.J. Sternberg (Ed.), *The nature of creativity* (pp.125-147). Cambridge, England: Cambridge University Press.
- Sternberg, R.J. (Ed.) (1988b). *The nature of creativity: Contemporary psychological perspectives*. New York: Cambridge University Press.
- Sternberg, R.J. (1989). Computational models of scientific discovery: Do they compute? [Review of *Scientific Discovery: Computational Explorations of the Creative Process*]. *Contemporary Psychology*, 34:895-897.
- Sternberg, R.J. & Davidson, J.E. (1983). Insight in the gifted. *Educational Psychologist*, 18:51-57.
- Sternberg, R.J. & Davidson, J.E. (1989). A four-prong model for intellectual skills development. *Journal of Research and Development in Education*, 22:22-28.
- Sternberg, R.J. & Lubart T.I. (1991a). An investment theory of creativity and its development. *Human Development*, 34: 1-31.
- Sternberg, R.J. & Lubart, T.I (1991b). Creating creative minds. *Phi and Delta Kappan*, 608-614.
- Sternberg, R.J. & Lubart, R.I. (1992). Buy low and sell high: An investment approach to creativity. *Current Directions in Psychological Science*, 1(1): 1-5.
- Sternberg, R.J. & Davidson, J.E. (Eds.) (1995). *The nature of insight*. Cambridge Mass: MIT Press.
- Sternberg, R.J. & Lubart, T.I. (1995). An investment perspective on creative insight. In Sternberg, R.J. & Davidson, J.E. (Eds.) *The Nature of Insight*. Cambridge, MA: MIT Press.
- Sternberg, R.J. & Lubart, T.L. (1995). *Defying the crowd: Cultivating creativity in a culture of*

- conformity*. New York: Free Press.
- Sternberg, R.J., Forsythe, G.B., Hedlund, J., Horvath, J., Snook, S., Williams, W.M. et al. (2001). *Practical intelligence in everyday life*. New York: Cambridge University Press.
- Stiles, W.B., Agnew-Davis, R., Hardy, G.E., Barkham, M. & Shapiro, D.A. (1998). Relations of the alliance with psychotherapy outcome: Findings in the second Sheffield psychotherapy project. *Journal of Consulting and Clinical Psychology*, 66(5): 791-802.
- Stolorow, R.D., Atwood, G.E. & Brandchaft, B. (1999). *The inter-subjective perspective*. Northvale, NJ: Jason Aronson.
- Stones, C.R. (1988). Research: Toward a phenomenological praxis, p.141-155 in Kruger, D. *An Introduction to Phenomenological Psychology*. Juta: Cape Town.
- Stones, C.R. (Ed.) (1996). *Qualitative research approaches to psychotherapy process*. Pretoria: Human Sciences Research Council.
- Strathern, P. (1997). *The big idea: Hawking and black holes*. London: Arrow Books Ltd., Random House.
- Straus, E. (1966). *Phenomenological psychology: Selected papers of Irwin Straus*, trans. E. Eng. New York: Basic Books Inc.
- Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London: Sage Publications.
- Suggit, J. (2007). *Mysterious reality: God, the world and ourselves in the light of Richard Dawkin's "The God delusion"*. South Africa: Pretext.
- Sulmasy, D.P. (2002). A biopsychosocial-spiritual model for the care of patients at the end of life. *Gerontologist*, 42:24-33.
- Suzuki, D.T. (1949/1983). *An introduction to Zen Buddhism*. London.
- Suzuki, D.T. (1957). *Mysticism: Christian and Buddhist*. New York: Harper & Row.
- Svenson, B., & Hanssom, L. (1999). Relationships among patient and therapist ratings of therapeutic alliance and patient assessments of therapeutic process. *Journal of Nervous and Mental Disorders*, 187:579-585.
- Swanson, C.L. et al. (1995). Insight in schizophrenia and mania. *The Journal of Nervous and Mental Disease*, 183(12):752-755.

- Swatton, S. & O’Callaghan, J. (1999). The experience of “healing stories” in the life narrative: A grounded theory. *Counselling Psychology Quarterly*, 12(4):413-480.
- Tardif, T.Z. & Sternberg, R.J. (1988). What do we know about creativity? In R.J. Sternberg (Ed.). *The Nature of Creativity: Contemporary Psychological Perspectives*, (pp.429-440). New York: Cambridge University Press.
- Teusch,L., Böhme, H. & Gastpar, M. (1997). The benefit of an insight-oriented and experiential approach on panic and agoraphobia symptoms. *Psychotherapy and Psychosomatics* 66:293-301.
- Thagard, P. & Shelley, C. (2000). Emotional analogies and analogical inference. In D. Gentner, K.J. Holyoak, & B.N. Kokinov, (Eds.). *Analogy: Perspectives from Cognitive Science*. Cambridge MA: MIT Press.
- Thagard, P. (2007). The moral psychology of conflicts of interest: Insights from affective neuroscience. *Journal of Applied Psychology*, 24(4):367-380.
- Thorne, B. (1990). *Carl Rogers*. London: Sage.
- Thynn, T. (1995). *Living meditation, living insight: The path of mindfulness in daily life*. MA: Dhamma Dana Publications.
- Tillich,P.(1952/1979). *The courage to be*. Glasgow: William Collins & Sons.
- Todres, L.A. (1990). *An existential-phenomenological study of the kind of therapeutic self-insight that carries a greater sense of freedom*. Unpublished PhD Thesis: Rhodes University.
- Todres, L.A. (2002). Humanising forces: Phenomenology in science; psychotherapy in technological culture. *The Indo-Pacific Journal of Phenomenology*, 2(1):1-11.
- Tomlinson, A.L. (2001). *Training God’s spies: Developing the imagination in theological formation*. Contact Pastoral Monographs, No.11: Edinburgh.
- Torrance, E.P. (1988). The nature of creativity as manifest in its testing. In R.J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives*, (pp.43-75). Cambridge University Press.
- Trottier, L. (200?). The current state of insight research. Paper presented at 22<sup>nd</sup> Annual Meeting of the Cognitive Science Society, Philadelphia, Penn.
- Trujillo, J. (2007). Accomplishing meaning in a stratified world: An existential-

- phenomenological reading of Max Weber's 'Class, status, party'. *Hum Stud* 30:345-356.
- Tutu, D.M. (1990). *Hope and suffering: Sermons and speeches*. Compiled by Mothobi Mutloatse. Braamfontein: Skotaville Publishers.
- Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185: 1124-1131.
- Tweney, R.D. (1989b). Fields of enterprise: On Michael Faraday's thought. In D.B. Wallace & H.E. Gruber (Eds.), *Creative People at Work: Twelve Cognitive Case Studies* (pp.90-106). New York: Oxford University Press.
- Tweney, R.D. (1990). Five questions for computationalists. In J. Shrager & P. Langley (Eds.), *Computational Models of Scientific Discovery and Theory Information* (pp.471-484). San Mateo, CA: Kaufmann.
- Tweney, R.D. (1991). Faraday's notebooks: The active organisation of creative science. *Physics Education*, 26:301-306.
- Tweney, R.D. (1992a). Inventing the field: Michael Faraday and the creative "engineering" of electromagnetic field theory. In R.J. Weber & D.N. Perkins (Eds.), *Inventive Minds: Creativity in Technology* (pp.31-47). New York: Oxford University Press.
- Tweney, R.D. (1992c). Stopping time: Faraday and the scientific creation of perceptual order. *Physics* 29:149-164.
- Tweney, R.D. (1995/6). Shifting sands: Sight and sound in Faraday's acoustical researches. In D. Gooding (Ed.), *Sensation and Cognition. Essays on the Changing Role of Sense Experience in the History of Science*. Chicago: University of Chicago Press.
- Ubel, P. & Loewenstein, G. (1997). The role of decision analysis in informed consent: Choosing between intuition and automaticity. *Social Science & Medicine*, 44(5): 647-656.
- Valle, R.S., King, M. & Halling, S. (1989). An introduction to existential-phenomenological thought in psychology. In R.S. Valle & S. Halling *Existential-Phenomenological Perspectives in Psychology*. (pp. 3-16). New York: Plenum Press.
- Valle, R.S. & Halling, S. (Eds.) (1989). *Existential-phenomenological perspectives in*

- psychology: Exploring the breadth of human experience*. New York & London: Plenum Press.
- Valle, R.S. & von Eckartsberg, R. (Eds.) (1981). *The metaphors of consciousness*. New York & London: Plenum Press.
- van den Berg, J.H. (1980). Phenomenology and psychotherapy. *Journal of Phenomenological Psychology*, 11(2): 21-49.
- van der Merwe C.N. & Gobodo-Madikizela, P. (2007). *Narrating our healing: Perspectives on working through trauma*. Newcastle U.K.: Cambridge Scholars Publishing.
- van der Merwe, C.N. (2008). *Ancient tales for modern times: Reflections on Abraham and his children*. Wellington, South Africa: Lux Verbi.
- van Deurzen, E. (2002). Heidegger's challenge of authenticity. In *Further Existential Challenges to Psychotherapeutic Theory and Practice*. S. Du plock (Ed.) pp.115-125.
- van Deurzen-Smith, E. (1990). The philosophical underpinnings of counselling psychology. *Counselling Psychology Review*, 5: 8-12.
- van Hiele, P.M. (1986). *Structure and insight: A theory of mathematics education*. Orlando, FL: Academic Press.
- van Kaam, A. (1985). Studies in formative spirituality. *Journal of Ongoing Formation*, Vol. V1 (1).
- van Ness, P.H. (Ed.). (1996). *Spirituality and the secular quest*. New York: Crossroad Publishing.
- van Vuuren, R.J. (1989). An exploration of the role of description in psychology as a descriptive science. *South African Journal of Psychology* 19(2):65-74.
- van Vuuren, R.J. (1991). *Dialogue beyond polemics*. Pretoria: Human Sciences Research Council.
- van Wyk Louw, N.P. (1962). *Tristia*, from the poem *ex unguine Leonem*. Cape Town: Human & Rousseau.
- Vaughan, F.E. (1979). *Awakening intuition*. Garden City, NJ: Anchor Press/Doubleday.
- Verstijnen, I.M. (1997). *Sketches of creative discovery*. Thesis Technische Universiteit, Delft.
- Verstijnen, I.M., Van Leeuwen, C., Hamel, R. & Hennessey, J.M. (2000). What imagery can't do and why sketching might help. *Journal of the International of Empirical Aesthetics*, 18(2): 167-182.

- Vosniakou, S. & Ortony, A. (Eds.). (1989). *Similarity and analogical reasoning*. Cambridge, England: Cambridge University Press.
- Wallace, D.B. (1989). Studying the individual: the case study method and other genres. In D.B. Wallace & H.E. Gruber (Eds.), *Creative People at Work: Twelve Cognitive Case Studies* (pp.25-43). New York: Oxford University Press.
- Wallace, D.B. (1991). The genesis and microgenesis of sudden insight in the creation of literature. *Creativity Research Journal*, 4,41-50.
- Wallach, M.A. (1967). Creativity and the expression of possibilities. In J. Kagan (Ed.), *Creativity and Learning* (pp.36-57). Boston: Houghton Mifflin.
- Wallas, G. (1926). *The art of thought*. New York: Harcourt, Brace, Jovanovich.
- Waller, N.G., Bouchard, T.J., Jr., Lykken, D.T., Tellegen, A. & Blacker, D.M. (1993). Creativity, heritability, familiarity: Which word does not belong? *Psychological Inquiry*, 4:235-237.
- Walsch, N.D. (1995,1997,1998). *Conversations with God. Books 1,2,3*. London: Hodder and Stoughton.
- Ward, T.B, Smith, S.M. & Vaid, J. (Eds.) (1997). *Creative thought: An investigation of conceptual structures and processes*. Washington DC: American Psychological Association.
- Watson, J.D. (1968). *The double helix*. New York: Signet Books.
- Weaver, H. & Madden, E. (1949). "Direction" in problem solving. *Journal of Psychology*, 27:331-345.
- Weisberg, R.W. & Alba, J.W. (1981a). An examination of the alleged role of "fixation" in the solution of several "insight" problems. *Journal of Experimental Psychology: General*, 110:169-192.
- Weisberg, R.W. & Alba, J.W. (1981b). Gestalt theory, insight and past experience: Reply to Dominowski. *Journal of Experimental Psychology: General*, 110:199-203.
- Weisberg, R.W. & Alba, J.W. (1982). Problem solving is not like perception: More on gestalt theory. *Journal of Experimental Psychology: General*, 111:326-330.
- Weisberg, R.W. (1992). Metacognition and insight during problem solving: Comment on Metcalfe. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 18:426-431.

- Weisberg, R.W. (1995). Prolegomena to theories of insight in problem solving: A taxonomy of problems. In Sternberg, R.J. & Davidson, J.E. (Eds.). *The Nature of Insight*. Cambridge, MA: MIT Press.
- Wertheimer, M. (1959). *Productive thinking*. Chicago: University of Chicago Press.
- Wertheimer, M. (1967). The general theoretical situation. In W.D. Ellis (Ed.). *A Source Book of Gestalt Psychology*, (pp.12-16). New York: Humanities Press.
- Wertheimer, M. (1985). A gestalt perspective on computer simulations of cognitive processes. *Computers in Human Behaviour*, 1: 19-33.
- Wertz, F.J. (1983). From everyday to psychological description: Analysing the moments of a qualitative data analysis. *Journal of Phenomenological Psychology* 14(2):197-241.
- Wertz, F.J. (1985). Method and findings in a phenomenological psychological study of a complex life-event: Being criminally victimised. In *Phenomenology and Psychological Research*. A. Giorgi, (Ed.) N.J.: Duquesne University Press.
- Wertz, F.J. & Van Zuuren, F. (1987). Qualitative research: Educational considerations. In F. Van Zuuren, F.J. Wertz, B. Mook, (Eds.). : *Advances in Qualitative Psychology*, pp. 7-18. Swets, North America: Berwyn.
- Wesson, R. (1991). *Beyond natural selection*. Cambridge: MIT Press.
- White, R.K. (1931). The versatility of genius. *Journal of Social Psychology*, 2:460-489.
- Wiesner, J.B. (1967). Education for creativity in the sciences. In J. Kagan (Ed.), *Creativity and Learning* (pp.92-102). Boston, Houghton Mifflin.
- Williams, D.I. & Irving, J.A. (1996). Intuition: A special kind of knowing? *Counselling Psychology Quarterly* 9(3):221-229.
- Williams, D.I. & Irving, J.A. (1996). Rogerian reality: Implications for counselling, *Changes*, 14: 93-98.
- Williams, H.A. (1979). *Tensions, necessary conflicts in life and love*. London: Mitchell Beazley.
- Williams, P. (2007). The worm that flies in the night. *British Journal of Psychotherapy*, 23(3), 343-364.
- Williams, S. (2006). Analytic intuition: A meeting place for Jung and Bion. *British Journal of Psychotherapy*, 23(1): 83-98.

- Wilson, T.D. & Schooler, J.W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, 60:181-192.
- Wilson, T.D., Lisle, D.J., Schooler, J.W., Hodges, S.D., Klaaren, K.J. & Laflour, S.J. (1993). Introspecting about reasons can reduce post-choice satisfaction. *Personality and Social Psychology Bulletin*, 19:331-339.
- Wilson, T. (2007). How do you know? The centrality of Bion's container contained concept in developing the capacity to think and to know. *Psycho-Analytic Psychotherapy in South Africa* 15(2):19-37.
- Winnicott, D.W. (1953). Transitional objects and transitional phenomena: A study of the first not-me possession. *The International Journal of Psychoanalysis*, 34: 89-97.
- Winnicott, D.W. (1958). *Collected papers: Through paediatrics to psycho-analysis*. London: Tavistock Publications.
- Winnicott, D.W. (1965). *The maturational processes and the the facilitating environment*. London: Hogarth Press.
- Winnicott, D.W. (1974). *Playing and reality*. Harmondsworth: Penguin Books.
- Woodman, R.W. & Schoenfeldt, L.F. (1989). Individual differences in creativity: An interactionist perspective. In J.A. Glover, R.R. Ronning, and G.R. Reynolds (Eds.), *Handbook of Creativity*. New York: Plenum.
- Woodrow, E. (2006). *The experience of the loss of a sibling: A phenomenological study*. Unpublished PhD Thesis: University of Pretoria.
- Woodworth, R.S. (1938). *Experimental psychology*. New York, Henry Holt.
- Woolhouse, L.S. & Bayne, R. (2000). Personality and the use of intuition: Individual differences in strategy and performance on an implicit learning task. *European Journal of Personality*, 14(2): 157-169.
- Worthington, E.L. & Sandage, S.J. (2002). Religion and spirituality. In *Psychotherapy Relationships that Work: Therapist Contributions and Responsiveness to Patients*. J.C. Norcross (Ed.), Oxford University Press.
- Wulff, D.M. (1997). *Psychology of religion: Classic and contemporary* (2<sup>nd</sup> ed.). New York: Wiley.
- Yaniv, I. & Meyer, D.E. (1987). Activation and metacognition of inaccessible stored

information: Potential bases for incubation effects in problem solving. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 13:187-205.

Yates, J.W., Chalmer, B.J., St James, P., Follansbee, M. & McKe.g.ney, F.P. (1981). Religion in patients with advanced cancer. *Medical and Pediatric Oncology*, 9:121-128.

Zajonc, R.B. (1965). Social facilitation. *Science*, 149:269-274.

Zeig, J.K. & Lankton, S.R. (1988). *Developing Ericksonian therapy*. New York: Brunner/Mazel.

Zilboorg, G. (1952). The emotional problem and the therapeutic role of insight. *The International Journal of Psychoanalysis*, 34: 272-283.

Zinnbauer, B.J., Pargement, K.I. & Scott, A. B. (1999). The emerging meanings of religiousness and spirituality: Problems and prospects. *Journal of Personality*, 67:889-919.

## APPENDIX A

### The Preliminary Study Interview: Additional Material

**John:** Tony, perhaps we could start with an overview of the whole process of your work as a cartoonist, before we come to the detail.

**Tony:** John I'll describe the process. The first thing is that a cartoonist's job is not a 9 – 5 job. I have, or pick up, ideas, inspirations and concentrate on things throughout my working day, and when I'm lying in bed at night; it's just things that are on my mind.

**John:** In fact, I imagine that it's quite often particularly when you're relaxed, isn't it ... In the bath or lying in bed?

**Tony:** Oh yes. In a bath, indeed ... lying in bed, or musing on things. Something just pops up, and I might wake up at night ... it's been a sleepless period ... Something on my mind that just jels. I do like to keep a pencil at the bedside just in case. Cartoons are at their best when they are in opposition. That is why I found the Mandela era quite difficult, because you know I was having to deal with a moral icon, a person who was modest, didn't have any superior or jumped-up ideas about himself, unlike other politicians that I could mention from previous eras, who were easier to deal with. The apartheid era I found I was at my best, because I felt that I was very much more passionate about issues at stake then. The injustice was horrendous, the folly being pursued by the government at the time was absolutely unbelievable, and I think professionally speaking it was my most inspirational period. So I think that's just an observation.

**John:** It sounds a very important one.

**Tony:** It's a very important one.

**John:** Those issues really engaged you at a gut level?

**Tony:** They did indeed. I felt quite passionate about things at that time. And then of course we had the transition and Mandela and the ANC coming into power. A hero of the liberation movement taking over the reins of government, and I almost felt quite inhibited because I felt it was unfair to be too critical. Also a cartoon is a very all-or-nothing statement. You criticise, you can't say "The health services are in a mess, but they found

them in a mess and they haven't got any money", all this kind of thing. So you can't enlarge on the topic, and explain it, so that's why it was quite difficult at that time to do cartoons, commenting on that.

**John:** You're taking a single frame photograph.

**Tony:** Yes, a single frame photograph, and you can't fudge it around with explanations, ifs and buts, all that sort of thing. The ANC has been in power for the last seven years, I think it is now. They've had quite a lot of time to settle in, and now I'm finding it a bit easier again. I'm not saying it's like old times.

**John:** But it's easier with Mbeki?

**Tony:** Yes, easier with Mbeki. He has taken up certain positions which I find quite baffling, and I also find far more open to valid criticism, so as a cartoonist having had that interim, I'm back in business. The first thing in the morning is to comb through the news in the Cape Times, because I focus more on the Cape Times as that's what the readers are familiar with. And decide on the events and the issues that need challenging or commenting about. And having decided on the issue or event, I then decide what I want to say about it. For example the Tony Yengeni thing, purchase of the cut-price Mercedes-Benz.

**John:** Yes, now, give me some examples of the sort of issues that you might pick up.

**Tony:** If I wanted to challenge Tony Yengeni and highlight this whole issue of the extraordinary cheap price that he got the Mercedes Benz, I could for example say, do I want to challenge his abuse of his parliamentary position? He being instrumental in actually deciding on of the process of arms procurement. That's one issue. Or I could say comment on the peculiar fact that he purchased one whole page of the Sunday Times to put his point of view forward .... In fact, it wasn't the Sunday Times, it was the other newspapers. The question I could possibly ask in the cartoon is where did the funds come from to finance this thing? I mean R250,000 is the sum that has been put forward. Or I could possibly ... I mean it is rather a peculiar thing to do ... He is responsible to Parliament, he's the Chief Whip, he should be making his explanations to Parliament not coming out in the public arena and taking up ads in the papers. I mean, it's all very well saying it pays to advertise, but is this the proper thing to do? Is it appropriate? The other thing of course in this process is to ask, do you focus on Yengeni himself or do you focus on

who made these bribes? ... EADS. Should you actually frame the cartoon to ask, what's their purpose in issuing these bribes? So there are a number of dimensions to this thing. That's the second part of the process.

Then of course you've got to decide how to conceptualise the cartoon. Now that is what you're concerned with, isn't it John?

John: And there you're exploring different kinds of allegories, is that right?



Cartoon 1

Tony: Yes, there are certain techniques you can use, but this particular cartoon (Cartoon 1) over here is where you can link the issue to an event in the news. And here I've linked this to the time of the Sleeping Giant. It took place just after the Soweto Riots, and here you have this huge black giant, rousing himself ... raising himself to his knees ... huge bulging muscles ... I wanted to show respect so I've drawn this giant in classical lines ... and it's a titanic, cataclysmic event. And in contrast you've got these rather comical little Nationalist Government cabinet ministers being shaken about on the surface of the earth. Now this coincides with the seismic event which took place – I think it was felt in the Northern Cape. The political earthquake which was taking place is linked to the geological earthquake which was in fact taking place. Linking these two, it highlights the event in the minds of the readers because they know about the earthquake and then they see this, and it's the association which gives impetus and impact to the cartoon idea.

**John:** Do you remember how that actually came to you ... I mean it's a long time ago?

**Tony:** It is a long time ago. Well, I just thought ... I was just aware of the huge moment when the whole apartheid apparatus was starting to get very, very shaky ... You remember at the time they were trying to adjust it ... with new constitutions and tri-cameral parliaments and all these sort of things. They were obviously trying to do something, which wasn't working. And then of course because blacks weren't getting a show-in you had this seismic event. We had two of them, one in 1976, and I think it was a



Cartoon 2

worse one in 1984 when I think the self-confidence, the assurance, of the Nationalist Party who thought they had it all in place for all time, and that they could just keep the blacks suppressed for all time, and their confidence was severely shaken at the time.

Contemplating the whole thing, I just saw it as a definitive event, and a seismic upheaval, and I think I just thought "earthquake ... earth-shattering" all these kind of things, and it just naturally fell into position.

There was another time when I used an earthquake as well. There had been an earthquake where the epicentre was as far away as Russia (or the USSR as it was then) which apparently caused the final vibration which caused the rock ... the “Finger of God”, as it was called ... to topple in Namibia. I had a reference to PW Botha (Cartoon 2), once again using the earth-shattering, earth-shaking events in, not only Soweto, but the Townships round South Africa. There he was, holding up his finger once again, admonishing everybody, but the tip of his finger had broken off, fallen onto the table, and I think somebody, one of his lackeys, or someone in the crowd, was saying that it was an earthquake in Soweto which had caused his finger to fall off. There are two news events here, the earthquake in Russia and this incredible thing of the Finger of God falling in Namibia. The Director of CAFDA said to me “How did you get away with that cartoon?” I said “What do you mean, what was so different about that cartoon that was more actionable than any other cartoons I’d done?” “Well” he said “the allusion was to the Finger of God, and that PW Botha thought that he was God”. It struck me as quite appropriate, though I didn’t think of it consciously, perhaps unconsciously ... the thought might have occurred to me, that the Finger of God was how PW thought of himself.

John: Isn’t that precisely why the cartoon is so powerful, because you can’t prove in a Court of Law that you had that particular association in mind at the time?

Tony: No, I don’t think one could.

John: Some people will see it, some people will get it, and some won’t.

Tony: Yes, this is where I have an advantage over my colleagues, of the written word. It would be very difficult for them at that particular time to get up and say “PW Botha thinks he’s God”. Whereas the cartoon in its allusion can say the same thing. So I think at the time I used to get away with a lot more than my colleagues of the printed word. Gerald Shaw used to get quite fed up about it. I could present this simple thing which he took, you know, columns of type to say and then more people looked at that and caught the point.

John: That’s very relevant. I remember a copy of the Mail and Guardian where they printed everything and then blacked out the things that had to be blacked out under the terms of the regulations of censorship at the time, like names of detainees and so forth.

Tony: That’s right. That was quite impactful.

John: That was a way of expressing how powerful censorship of the written word was at the time. But you weren't under that censorship in the same way.

Tony: Not as much as my fellow journalists certainly. The reason being that the emergency regulations governing the press at the time were so vaguely worded – there were so many grey areas – that it was very difficult for the editor to know where he was. I think I mentioned the metaphor that editing a South African newspaper was like walking blindfold through a minefield. You weren't quite sure where you were at any time.

John: But also your work was making the links and associations *in people's minds*, wasn't it?

Tony: Oh yes.

John: In a much more subtle way than the written word could do.

Tony: I think so, it's the allusion and the parody which people read into things. At the same time, I mentioned that I was much freer in commenting about the actions of government at the time. You remember that there were restrictions on taking photographs of the security forces, and I think there were also allusions to making images and things

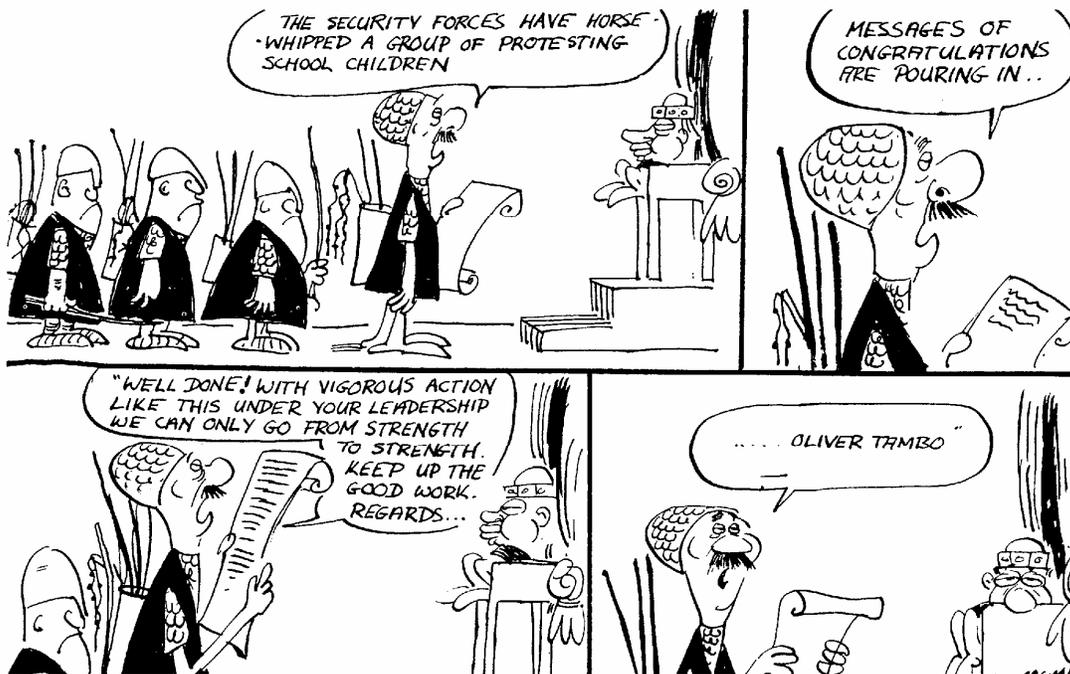


Cartoon 3

like that which was quite a grey area. So that rather inhibited me from making drawings of the security forces in action. Parody is a very effective form of ridicule and criticism. At the time I found a very useful device in using that comic strip “The Wizard of Id” (cartoons 3 & 4). Do you remember that?

John: Yes, I do.

Tony: There were a whole range of characters which translated beautifully into the government’s whole theme of oppression, and the individual characters as well, translated very well because there was this jumped-up little autocratic king, a small figure. Now he was a perfect PW Botha (Prime Minister, then President), once I’d given him a big admonishing index finger. And there was that rather gormless stupid knight Sir Rodney, with the big nose. Now he was a perfect Louis Le Grange (Minister of Justice).



Cartoon 4

And then there were the soldiers themselves. Remember, they had those little conical iron hats with a piece of metal in that protected their noses. Then they had a quiver of arrows, but I replaced the quiver of arrow with a quiver of quirts as they used to call them, politely – remember those whips?

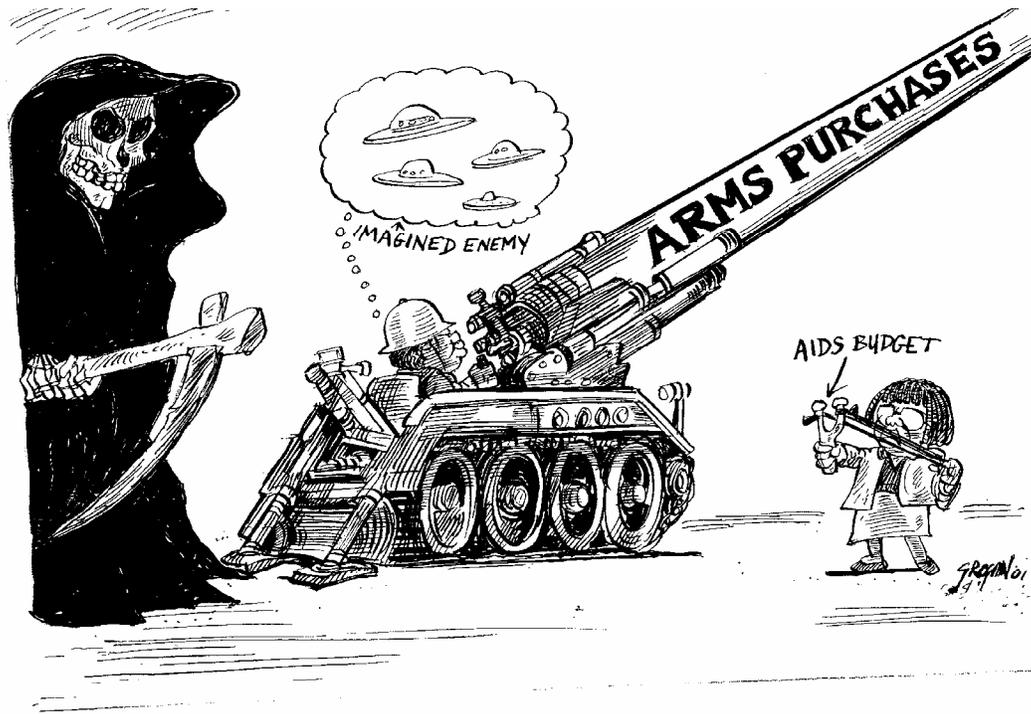
**John:** Yes I do. I was beaten with them.

**Tony:** I remember that. I remember you being photographed with the welts across your back. Now you mentioned to take cartoons into a court of law – it’s actually very difficult to prove the allusions that you’re making, because hopefully cartoons are fairly subtle. At least I hope that the cartoons that I devise can be *read on these different levels*. But the other thing about taking a cartoon into court is that you’re taking a joke into court, and I think the biggest danger you have is actually making a total fool of yourself. Because it’s one thing to logically mount an argument against a report, the lead story or the leading article or something like that, but to mount a logical argument against a parody or a ridiculous cartoon or something like that is another story. You can answer an argument with another argument but it’s difficult to answer a joke with another joke. So I think using that devise, a parody, linking the suppressive events that are taking place with the Wizard of Id cartoon, I got away with a great deal. The Wizard of Id cartoons were the series of cartoons I remember most proudly.

At this point of the interview we focused on a particular Cartoon (5) and the text of the interview is reflected in The Preliminary Study at **4.5**.

The last part of the interview is captured below.

Tony: Here's another one over here (Cartoon 6). Also arms purchases. Though it's quite



Cartoon 6

interesting, I didn't pull these two out on purpose, but this also shows government priorities.

This is a cartoon reflecting the government's priority when it comes to fighting AIDS.

Once again I've concentrated on the arms deal. I've just been baffled by the readiness to invest this huge amount on pretty shaky grounds, I mean both on the perceived enemy and how much it's going to do for the economy. This talk about guaranteed investments just seems to be pie in the sky.

John: Do you remember how this came to you? Do you remember the process?

Tony: This was done for The Independent, yes. I think it was after Mbeki's AIDS panel had reported. But I think the two issues, the arms purchases and the AIDS issue (the AIDS issues is such an on-going, huge problem) came into sharp focus at the same time.

Shabalala made one of her usual puzzling statements that the government's battle against AIDS was predicated on the assumption that HIV and AIDS are linked. You are asking

about the process here...that nightmarish figure is something that stays with me all the time, really, and every time I ...

John: The Grim Reaper ...

Tony: The Grim Reaper ... that's not something that necessarily comes from my unconscious. Everybody identifies with that. I can't remember ... I was just thinking again of the government's priorities. But clearly a lot more has been spent on this arms purchase than this little catapult down here ... the process, yes it's quite difficult.

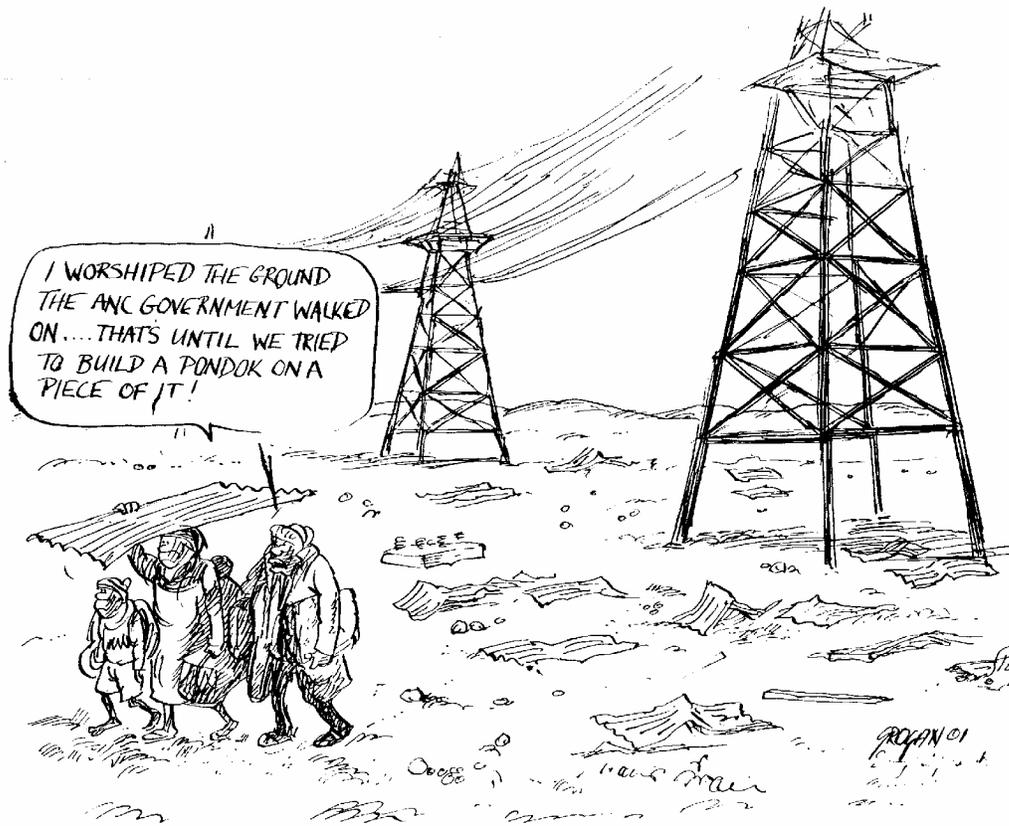
John: It is a sharp contrast between the catapult and this huge gun. Almost a David and Goliath contest.

Tony: Here the enemy's AIDS, in this other cartoon I was just discussing now the enemy is poverty, and once again the priorities are highly questionable. Do you want to move on to some other cartoon?



Cartoon 7

**Tony: I think we were talking about this whole question of the removal of the squatters, which took place last week (Cartoon 7). And I was quite preoccupied with the tragic irony of the ANC having to move their own supporters from this piece of desolate ground under the pylons and so on. So the whole question of ground ... I am trying to think of the process here ... ANC supporters ... and the disillusion of these supporters when they realised that it was their own government, whom they had voted for, put into power, and who are now setting out to remove them and their pitiful belongings from this piece of ground (Cartoon 8). And I thought of how it must have struck those people, how disappointed they must have been, and as I was thinking about ground I was thinking about all these associations about ground, what do you do with ground, how do you reflect it ... possession of ground ... being removed from the ground, and just by a process of association, the idea of *worshipping the ground*. And I thought yes, worshipping the ground that you walk on ... they must at one time have worshipped the ground which the ANC walked on. And then I thought, now is that an appropriate thing ... does it actually gel as an idea? Does the ANC actually walk on that ground? And then I thought that walking on the ground means you have possession of the ground. And it was appropriate, because the ANC just happened to possess that piece of ground. Isn't that right? I think it belongs to ESKOM or some quasi government structure. And if they walk on the ground it means that they walk like giants ... the government walking over the ground like giants. I am just trying to describe the thoughts that went through my head. The ground that they walked on is the ground that they ruled. I was really thinking more universally than particularly about that patch of ground. So we worship the ground on which the government walks, which is the entire country ... they ruled the country, and there you have this chap making a statement saying "I worship the ground the ANC government walked on, that's until we tried to build a pondock on a little piece of it". And to me it simply highlighted the whole tragedy of the situation. You know on the surface it's quite fun, but hopefully it's quite funny. The response to it was quite positive.**



Cartoon 8

**John:** I think it catches the tragicomedy of the situation.

**Tony:** The government has this whole country, and here you've got these people wanting just a little piece of it. And I think it also emphasises the fact that all they want is that little piece of ground. They are not asking the government to build a house on it or anything. He's building his own little house. He's walking away with little remnants of the house, the piece of corrugated iron, but the government's got a lot of ground, and once again as I said in that other cartoon they have been pretty tardy about deliverance of this ground. I tried to make the landscape as bleak and shattered as possible. Now I don't know whether that helps you along a little of the way.

**John:** Yes, it does, yes indeed.

**Tony:** I have an advantage of working as a cartoonist in the English language, because the English language is so nuanced, so much ambiguity in it. It's a language that is just made for punning. People say that punning is a feeble sense of humour, but it works incredibly well for cartoons, because you can make all sorts of allusions with the use of puns.

Like this one, for example. Here's Helen Susman (iconic Opposition Member of Parliament) saying “what’s going on in Lebowa?”



Cartoon 9

**Tony:** And the response “That’s their funeral”. It’s just appropriate to this particular issue where people are being killed by the police and the Minister of Justice was not taking any notice at all – he’s just allowing people to bury their dead and not investigate how people died. And I’m sorry to say that “*that’s their funeral*” is an appropriate phrase in English to use.

**John,** I’m quite prepared to have another meeting if you would like to think about what we have discussed.

**John:** Well, that’s very generous of you, thank you.

**Tony:** Because you might not be getting quite what you are wanting ... I sense.

**John:** I think we've done some extremely valuable and useful stuff. And I think it's provided a marvellous sort of framework. The thing that I would still like to focus on a bit more is the details of the lived experience of insight.

**Tony:** Yes, what happens. That's what I'm worrying about, I'm not quite articulating that. I don't know whether I'm identifying it.

**John:** Well, I think it's very difficult. But maybe over the next few weeks you could become aware of the process.

**Tony:** You see, I'm not consciously thinking of doing this now. Perhaps I should take a few notes!

**John:** I don't know whether you'd be prepared to do that – it might complicate the whole thing for you. But if you would be prepared to think about what's the actual experience, that would be very exciting for me!

**Tony:** Yeah. I think that might be the route to go.

**John:** The word which the existentialists use so much is "*lived experience*" – the details of the lived experience.

**Tony:** That's what you want to put your finger on.

**John:** I think it's very difficult to re-capture that, because one doesn't always remember that as you're going along. So perhaps that's something that you would be willing to consider over the next couple of weeks.

**Tony:** Sure.

**John:** That'd be very helpful ... it would be very exciting. Because the closer we can get to that, the more it's going to help the particular way that I'm working.

**Tony:** Sure, sure. Does the framework that I've hopefully managed to convey ... does that help?

**John:** Yes absolutely. And you've produced some excellent examples. And I would like to reproduce these cartoons and include the Finger of God too, because that's a lovely example.

**Tony:** Perhaps I could go through some of the cartoons and maybe I could find ones where – you'd be particularly interested in the cartoon where something just came *like that*.

**John:** Yes, I would. Because you described this process, which is quite deliberate, and you've described that in good detail. If there was something that came *like that*, and how it came, or perhaps a part of it came *like that* and then you had to work on it.

**Tony:** Also sometimes you think of an idea ... which you think will be quite funny ... and sometimes even force the framework of the issue into the idea. The concept that you've arrived in the process of pondering any particular issue ... it sounds quite funny but it doesn't actually fit the mould, so to speak. And then you start manipulating the whole thing and changing this and that thing ... and then eventually it starts to gel. When I start thinking of things I might be able to give you a better specific example.

**John:** Well, that'd be great. I really appreciate your being so open. It's also very stimulating for me.

**Tony:** Well, it's interesting for me as well, because you just do these things, and you dream away, but it's really quite interesting to get your analysis, and see what you make of the whole process. I think it's very valuable to have another pair of eyes and you can probably identify what goes on, better than the person experiencing it.

**John:** Well, your experience is very important. It's the primary data. But sometimes sharing it can help us *appreciate it more ourselves*. I had a very interesting experience of being listened to, and then appreciating and valuing my own experience, as a result of being interviewed by somebody writing a book on the TRC experience. It was after I had given evidence to the TRC about the burning of Crossroads and KTC in May and June 1986. This person drew out some of the implications of what I'd been saying, and had experienced. I found it surprisingly helpful in terms of integrating those powerful experiences in my life although it was painful and puzzling as well as exciting to relive them as I talked about them.

**So I hope that sharing your process and experiences of insight may help you appreciate, value and integrate your gifts and hard work too.**



## APPENDIX B

### **Desmond Tutu's Letter to the Prime Minister: the Result of his Experience of Insight**

The Hon. Prime Minister Mr John Vorster  
House of Assembly  
Cape Town 8000

6<sup>th</sup> May 1976

Dear Mr Prime Minister

This will be my second letter ever to you. In 1972 after I had been refused a passport to take up a post as Associate Director of the Theological Education Fund, I appealed to you to intervene on my behalf with the appropriate authorities. Your intervention was successful because, soon thereafter, the then Minister of the Interior changed his mind and granted me and my family our passports. I am writing, therefore, optimistically in the hope that this letter will have similar happy results for all of us.

I am writing to you, Sir, in all deep humility and courtesy in my capacity as Anglican Dean of Johannesburg and, therefore, as leader of several thousand Christians of all races in the Diocese of Johannesburg. I am writing to you as one who has come to be accepted by some Blacks (i.e. Africans, Indians and Coloureds) as one of their spokesmen articulating their deepest aspirations, as one who shares them with equal steadfastness. I am writing to you, Sir, because I know you to be a loving and caring father and husband, a doting grandfather who has experienced the joys and anguish of family life, its laughter and gaiety, its sorrows and pangs. I am writing to you, Sir, as one who is passionately devoted to a happy and stable family life as the indispensable foundation of a sound and healthy society. You have flung out your arms to embrace and hug your children and your grandchildren, to smother them with your kisses, you have loved, you have wept, you have watched by the bed of a sick one whom you loved, you have watched by the deathbed of a beloved relative, you have been a proud father at the wedding of your children, you have shed tears by the graveside of one for whom your heart has been broken. In short, I am writing to you as one human person to another human person, gloriously created in the image of the selfsame God, redeemed by the selfsame Son of God who for all our sakes died on the Cross and rose triumphant from the dead and reigns in glory now at the right hand of the Father; sanctified by the selfsame Holy Spirit who works inwardly in all of us to change our hearts of

stone into hearts of flesh. I am, therefore, writing to you, Sir, as one Christian to another, for through our common baptism we have been made members of and are united in the Body of our dear Lord and Saviour, Jesus Christ. This Jesus Christ, whatever we may have done, has broken down all that separates us irrelevantly - such as race, sex, culture, status, etc. In this Jesus Christ we are forever bound together as one redeemed humanity, Black and White together.

I am writing to you, Sir, as one who is a member of a race that has known what it has meant in frustrations and hurts, in agony and humiliation, to be a subject people. The history of your own race speaks eloquently of how utterly impossible it is, when once the desire for freedom and self-determination is awakened in a people, for it to be quenched or to be satisfied with anything less than freedom and that self determination. Your people against tremendous odds braved the unknown and faced up to daunting challenges and countless dangers rather than be held down as a subjugated people. And in the end they emerged victorious. Your people more than any other section of the White community must surely know in the very core of their beings, if they were [not] unaware of the lessons of history both ancient and modern, that absolutely nothing will stop a people from attaining their freedom to be a people who can hold their heads high, whose dignity to be human persons is respected, who can assume the responsibilities and obligations that are the necessary concomitants of the freedom they yearn for with all their being. For most Blacks this can never be in the homelands because they believe they have contributed substantially to the prosperity of an undivided South Africa. Blacks find it hard to understand why the Whites are said to form one nation when they are made up of Greeks, Italians, Portuguese, Afrikaners, French, Germans, English etc., etc.; and then by some tour de force Blacks are said to form several nations - Xhosas, Zulus, Tswanas etc. The Xhosas and the Zulus, for example, are much closer to one another ethnically than, say, the Italians and the Germans in the White community. We all, Black and White together, belong to South Africa against a visiting Argentinian side. The South African team won hands down and perhaps for the first time in our sporting history South Africans of all races found themselves supporting vociferously the same side against a common adversary. The heavens did not fall down. Is it fanciful to see this as a parable of what will happen when all South Africans together are given a stake in their country so that they will be ready to defend it against a common foe and struggle for its prosperity vigorously and enthusiastically?

I write to you, Sir, because our Ambassador to the United Nations, Mr Botha, declared that

South Africa was moving away from discrimination based on race. This declaration excited not only us but the world at large. I am afraid that very little of this movement has been in evidence so far. It is not to move substantially from discrimination when some signs are removed from park benches. These are only superficial changes which do not fundamentally affect the lives of Blacks. Husbands and fathers are still separated from their loved ones as a result of the pernicious system of migratory labour which a D.R.C. Synod once castigated as a cancer in South African society, one which had deleterious consequences on Black family life, thus undermining the stability of society which I referred to earlier. We don't see this much longed-for movement when we look at the overcrowded schools in Black townships, at the inadequate housing and woefully inadequate system of transport etc.

I write to you, Sir, to give you all the credit due to you for your efforts at promoting detente and dialogue. In these efforts many of us here wanted to support you eagerly, but we feel we cannot in honesty do this, when external detente is not paralleled by equally vigorous efforts at internal detente. Blacks are grateful for all that has been done for them, but now they claim an inalienable right to do things for themselves, in co-operation with their fellow South Africans of all races.

I write to you, Sir, because like you, I am deeply committed to real reconciliation with justice for all, and to peaceful change to a more just and open South African society in which the wonderful riches and wealth of our country will be shared more equitably. I write to you, Sir, to say with all the eloquence I can command that the security of our country ultimately depends not on military strength and a Security Police being given more and more draconian power to do virtually as they please without being accountable to the courts of our land, courts which have a splendid reputation throughout the world for fairness and justice. That is why we have called and continue to call for the release of all detainees or that they be brought before the courts where they should be punished if they have been found guilty of indictable offences. There is much disquiet in our land that people can be held for such long periods in detention and then often either released without being charged or, when charged, usually acquitted; but this does not free them from police harassment. Though often declared innocent by the courts, they are often punished by being banned or placed under house arrest or immediately re-detained. How long can a people, do you think, bear such blatant injustice and suffering? Much of the White community by and large, with all its prosperity, its privilege, its beautiful homes, its servants, its

leisure, is hag-ridden by a fear and a sense of insecurity. And this will continue to be the case until South Africans of all races are free. Freedom, Sir, is indivisible. The Whites in this land will not be free until all sections of our community are genuinely free. Then we will have a security that does not require such astronomical sums to maintain it, huge funds which could have been used in far more creative and profitable ways for the good of our whole community, which would take its rightful place as a leader in Africa and elsewhere, demonstrating as it will that people of different races can live amicably together. We need one another and Blacks have tried to assure Whites that they don't want to drive them into the sea. How long can they go on giving these assurances and have them thrown back in their faces with contempt? They say even the worm will turn.

I am writing to you, Sir, because I have a growing nightmarish fear that unless something drastic is done very soon then bloodshed and violence are going to happen in South Africa almost inevitably. A people can take only so much and no more. The history of your own people which I referred to earlier demonstrated this, Vietnam has shown this, the struggle against Portugal has shown this. I wish to God that I am wrong and that I have misread history and the situation in my beloved homeland, my mother country South Africa. A people made desperate by despair, injustice and oppression will use desperate means. I am frightened, dreadfully frightened, that we may soon reach a point of no return, when events will generate a momentum of their own, when nothing will stop their reaching a bloody denouement which is "too ghastly to contemplate", to quote your words, Sir.

I am frightened because I have some experience of the awfulness of violence. My wife and I with our two youngest children stayed for two months in Jerusalem in 1966 and we saw the escalating violence and the mounting tensions between Jew and Arab which preceded the Six day War. I was in Addis Ababa when there was rioting in the streets, a prelude to the overthrow of the dynasty of Haile Selassie. I was in Uganda just before the expulsion of the Asians from that country and have returned there since and experienced the fear and the evil of things there. I have visited the Sudan, admittedly after the end of the seventeen years of civil strife, but I could see what this internecine war had done to people and their property. I have visited Nigeria and the former Biafra and have seen there the awful ravages of that ghastly civil war on property and on the souls of the defeated Biafrans. Last year I was privileged to address the General Assembly of the Presbyterian Church in Ireland in Belfast - and what I saw shook me to the core of my

being. We saw daily on television in Britain horrific pictures of the pillage and destruction being perpetrated in Vietnam: children screaming from the excruciating agony of burns caused by napalm bombing, a people rushing helter-skelter, looking so forlorn and bewildered that one wanted to cry out, 'But is there no God who cares in heaven'. No, I know violence and bloodshed and I and many of our people don't want that at all.

But we Blacks are exceedingly patient and peace-loving. We are aware that politics is the art of the possible. We cannot expect you to move so far in advance of your voters that you alienate their support. We are ready to accept some meaningful signs which would demonstrate that you and your Government and all Whites really mean business when you say you want peaceful change.

First, accept the urban Black as a permanent inhabitant of what is wrongly called White South Africa, with consequent freehold property rights. He will have a stake in the land and would not easily join those who wish to destroy his country. Indeed, he would be willing to die to defend his mother country and his birthright.

Secondly and also as a matter of urgency, repeal the pass laws which demonstrate to Blacks more clearly than anything else that they are third rate citizens in their beloved country.

Thirdly, it is imperative, Sir, that you call a National Convention made up of the genuine leaders (i.e. leaders recognized as such by their section of the community,) to try to work out an orderly evolution of South Africa into a nonracial, open and just society I believe firmly that your leadership is quite unassailable and that you have been given virtually a blank cheque by the White electorate and that you have little to fear from a so-called right wing backlash. For if the things which I suggest are not done soon, and a rapidly deteriorating situation arrested, then there will be no right wing to fear - there will be nothing.

I am writing this letter to you, Sir, during a three day<sup>62</sup> clergy retreat in Johannesburg, when in the atmosphere of deep silence, worship and adoration and daily services of the Lord's Supper we seek to draw close to our Lord and try to discover what is the will of God for us and what are the promptings and inspirations of God's Holy Spirit. It is during this time that God seemed to move me to write this letter.

---

<sup>62</sup> John Allen, the author of the authorised biography of Desmond Tutu, explained the apparent contradiction between the "three day" retreat here in the letter, and the "five day" retreat in the text of the interview in these terms: "The retreat took place from late Monday afternoon and finished on Friday midday. So Desmond is only counting the full days when he describes it in his letter as a three day clergy retreat" (in private communication).

I hope to hear from you, Sir, as soon as you can conveniently respond, because I want to make this correspondence available to the Press, preferably with your concurrence, so that all our people, both Black and White, will know that from our side we have done all that is humanly possible to do, to appeal, not only to the rank and file of Whites, but to the highest political figure in the land, and to have issued the grave warning contained in my letter. This flows from a deep love and anguish for my country. I shall soon become Bishop of Lesotho, when I must reside in my new diocese. But I am quite clear in my own mind, and my wife supports me in this resolve, that we should retain our South African citizenship no matter how long we have to remain in Lesotho.

Please may God inspire you to hear us before it is too late, and may He bless you and your Government now and always.

Should you think it might serve any useful purpose, I am more than willing to meet with you to discuss the issues I raise here as you say in Afrikaans, *onder vier oë*.

Since coming to this Cathedral last year, we have had a regular service, praying for Justice and Reconciliation in this country every Friday. And at all services in the Cathedral we pray:

*God bless Africa*

*Guard her children*

*Guide her rulers and*

*Give her peace,*

*For Jesus Christ's sake.*

And:

*O Lord, make us instruments of Thy peace: where there is hatred, let us sow love, where there is injury, pardon; where there is despair, hope; where there is darkness, light; where there is sadness, joy.*

*O divine Master, grant that we may not so much seek to be consoled as to console, to be understood as to understand, to be loved as to love; for it is in giving that we receive, it is in pardoning that we are pardoned, it is in dying that we are born to eternal life.*

*Amen.*

And we mean it.

Yours respectfully,

Desmond Tutu.

## APPENDIX C

### Letters to Desmond Tutu

15 Wellington Road

Wynberg 7800

Tel: 021 761 0908

25th January 2003

Dear Archbishop Desmond

We did so appreciate your Christmas card. Those words express so much of who you are ... so thank you for living it out as well as expressing it verbally.

I do hope that you and Leah were able to be with family over Christmas, and are both well. You must be looking forward to going to the States again – any chance of taking life at a slightly different pace now, or is that a vain hope?

Jilly continues to do really well after her three massive brain operations to remove the tumour. Day by day, we really thank God. God's grace and healing power have been quite wonderful.

I am greatly enjoying ministry as both priest and psychotherapist, and am doing doctoral research on the experience of "Insight". I'm wondering whether you would be willing to help me? I am interviewing a few carefully chosen people about their actual experience of Insight, whether sudden or gradual, in the course of their life and work.

I'd be particularly interested to ask you in detail about your experience of Insight during the 3-day Clergy Retreat in Johannesburg in May 1976, which culminated in your Open Letter to John Vorster. Would you be willing and able to talk about that experience and your "growing and nightmarish fear that unless something drastic is done very soon, then bloodshed and violence are going to happen in South Africa almost inevitably", just five or six weeks before the Soweto uprising of June 16<sup>th</sup>?



There might be other experiences of Insight, perhaps more recent, that you would prefer to talk about. It is a rich and detailed description of just one lived experience that I am needing. I am making bold to ask because I know you'd be a rich and articulate mine of personal experience of Insight. Would you be prepared to consider being interviewed before you go to the States again? The recorded qualitative research interview would take about an hour.

I'd be very happy to respond to any questions you may have as well as to explain more about the aims, methods and safeguards of the research. You would of course get a copy of the transcribed interview to check or change before I started incorporating it into my research.

In one sentence, the research is to gather rich and detailed descriptions of people's experiences of Insight, occurring in a variety of contexts, in order to discover and describe, as accurately as possible, the essential structure of the phenomenon of Insight and to explore ways in which that structure may help us understand the meaning and significance of these experiences of Insight across different contexts, traditions, cultures and disciplines (phew!)

I do hope you'd be willing to participate or at least to explore it a bit further.

With our very best wishes,

Yours ever

John Freeth.



15 Wellington Road  
Wynberg 7800  
021 761 0908

14<sup>th</sup> July 2003

Dear Father,

Thank you very much indeed for being so generous with your time, your memories, your experiences of insight/intuition, and above all for the sharing of yourself in the tape recorded research interview last Friday.

Jilly and I have transcribed the tape recording, doing just the minimum of editing and adding the odd date or detail supplied by Bishop Peter Lee in the Sebokeng story. The interview comes to about 8 pages in all, and I am enclosing it with this letter, so that you have the opportunity to see if you are happy with it. If there is anything that you want to change, delete, or add at this stage, please do. If not, I'll take this as my working document for analysis.

My sense is that you have given me some very valuable material for which I'm extremely grateful. I hope I can do it justice.

Jilly and I are off to England on 17<sup>th</sup> July for 3 weeks to be with and nurse our Mums. It's an annual pilgrimage at this stage of their lives.

By the way the person our son Timo is getting married to in Soweto on December 13<sup>th</sup> is Lindy Mavuso, who has been doing PR work for your Education Fund until recently. He was also involved in your Awards Ceremony a few weeks ago.

I hope Leah's 70<sup>th</sup> Birthday party plans and preparations are coming on well. What a wonderful celebration it will be for you both.

With many thanks

Love and prayers,

John.



## APPENDIX D

### Informed Consent Forms



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

**Faculty of Humanities**

**Department of Psychology**

Lynnwood Road

Pretoria, 0002

Republic of South Africa

Tel: 012-420 2329 Fax: 012-420 3479

Website: [www.up.ac.za](http://www.up.ac.za)

[assie.gildenhuys@up.ac.za](mailto:assie.gildenhuys@up.ac.za)

### INFORMED CONSENT FORM

I,.....hereby give consent to voluntarily participate in the research study by John Freeth entitled “An Existential-phenomenological Study of Insight”.

It has been explained to me that the thesis is in partial fulfilment of a PhD in psychotherapy in the Department of Psychology at the University of Pretoria, under the supervision of Dr Assie Gildenhuys.

I understand that the data collection procedures include an in-depth interview in order to gather as rich and detailed description as possible of my personal experience of insight, in order to discover and describe as accurately as possible the essential structure of the phenomenon of insight.

I also understand that I have the right to withdraw from participating in the research study at any time without redress.

The researcher has assured me that when the tape recorded interview is transcribed using only the confidential secretarial services of his wife, I will be given the opportunity to see, comment on, verify or change the written transcription of my oral statements, and that when I am satisfied the tape recording will be deleted.

I have further been assured that at this point of verification of the transcription I will also have the freedom to indicate any personal details or private data which might identify me, and that it is my decision whether to adopt a pseudonym and have any other details changed, disguised or



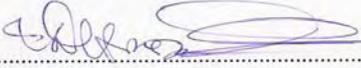
deleted in order to safeguard my right to ensure that my identity will be kept anonymous at all times.

But since much of this material is in the public domain already, I am quite prepared for my name and other identifying details to be included along with other relevant supporting published documentation. This applies both to the thesis itself and to any further scientific or lay articles, publications or conferences.

The researcher has also made me aware that personal reflection can touch on issues and emotions that no-one anticipated at the beginning and has invited me to contact him if after the interview I have any uncertainty.

The researcher has indicated his commitment to the ideal of openness and negotiation of research process, interpretations and products with me so that there may be, in so far as is possible, a mutual shaping of the final research results. To this end he is willing to give me a copy of his interpretation of my particular experience of insight, so that I may comment upon it and interact with him over it, if I so desire.

John Freeth has assured me that my position, integrity and experience of insight will at all times be regarded and treated with the utmost respect by him as researcher, priest and psychotherapist.

Signature of Participant.....		Date.....	5.9.07
Signature of Researcher.....	John Freeth	Date.....	6 <sup>th</sup> Sept. 2007



INFORMED CONSENT FORM

1. I understand that John Freeth wants to interview me to gather as rich and detailed descriptions as possible of my personal experience of insight in order to discover and describe as accurately as possible the essential structure of the phenomenon of insight.
2. He has assured me that when the tape recorded interview is transcribed, using only the confidential secretarial services of his wife, I will be given the opportunity to see, comment on, verify or change the written transcription of my oral statements.
3. I am also assured that at this point I will also have the freedom to indicate any personal details or private data which might identify me and that I will have the opportunity to decide whether to have them changed, disguised, deleted or let them remain.
4. I do not need to remain anonymous. I am prepared for my name and other identifying characteristics to be retained in the text and attach my signature at this point to confirm my permission... *[Signature]* ...
5. John has indicated his commitment to the ideal of openness and negotiation of research processes, interpretations and products with me so that there may be, in so far as is possible, a mutual shaping of the final research results. To this end he has promised to give me a copy of his interpretation of my particular experience of insight so that I may comment upon it and interact with him over it.
6. I also understand that a further aspect of the research is to explore ways in which the structure of Insight may help us to understand the meaning and significance of these experiences of insight across different contexts, traditions, cultures and disciplines. I would be open to the possibility of exploring those aspects as they relate to my experience in a second and subsequent interview if it was mutually agreed that it might be helpful and productive.
7. I am prepared for the information obtained in this research to be written up in John Freeth's Doctoral Thesis on Insight and to be used in any further scientific or lay articles, publications or conferences.
8. John has shared his own recent positive experience of being listened to in a research interview and his hope that there should be a reciprocity in what I give and receive from participation in this study. To that end he has committed himself to the highest possible quality of listening, analysis, verification and final written thesis. In response I am willing to participate and cooperate as fully as possible and trust his integrity as a Priest, psychotherapist and researcher.

Signed by Researcher

*John Freeth*

Signed by Participant

X *[Signature]*

Signed by Witness

*A. Craford-Broske*

Signed by Supervisor at Pretoria University

.....

Date

*May 22<sup>nd</sup> 2003*