

CHAPTER 2

EXISTING INTERACTION THEORIES IN PERSONOLOGY

2.1 Introduction

Personology is the scientific study that describes, explains and predicts human behaviour on the basis of conceptual systems known as personality theories. Personology is thus that part of psychology which concentrates on the study of the characteristics of the individual and on the characteristic differences between persons. In other words, it identifies those aspects which enable someone to say I know someone else well. The scientific study can be described as an extension of the general knowledge of human nature. Lay people commonly refer to a person's character or temperament in this regard. The first term concerns the person's values and how consistently these are realised. The second term, also known as a person's nature, concerns emotions and how these are dealt with. Differences between the two terminologies are that character is mostly based on socialisation and education (environmental influences) and temperament is mostly based on inherited, biological aspects (genetic influences).¹⁰ A popular psychological view of personology includes characteristics such as handwriting, signature, fashion and other specific choices, which reveal features of an individual's personality, and the contribution of that particular part to the outcome.

Personality theories could emphasise the role of the person (personism), the situation in which the person acts (situationism) or the interaction between the characteristics of the individual and the situation in which the behaviour occurs (interactionism). This chapter will only deal with theories which emphasise the interaction between individuals (interactionism) or individuals and the environment (environmental interaction).

Interaction personality theories are particularly useful as a basis for subjects such as social psychology and sociology. Social psychology was introduced by William McDougal in 1908 and he held the view that social behaviour stems from innate tendencies or instincts. This was followed by Floyd Allport in 1924, who argued that social behaviour stems from different factors, including the presence of other persons and their specific actions.¹¹

Today social psychology is known as the scientific study that seeks to understand the nature and causes of individual behaviour in social situations. However, the causes of social behaviour and thought are complex and consist of many variables, which mostly fall into the following categories:

- the behaviour and characteristics of other persons;
- the basic cognitive processes, such as meaning and reasoning, that underlie social cognition, our thoughts, beliefs, ideas and judgement;
- ecological variables, direct and indirect influences of the physical environment which developed in a new field, environmental psychology, which focuses on the interaction between the physical world and human behaviour, including animals, because social behaviour does not unfold in a cultural vacuum; and
- biological functions, because many of our preferences, behaviour and cognitive abilities are affected to some extent by our biological inheritance.¹¹

Social interaction, on the one hand, is based on social perceptions formed by non-verbal communication, attribution, a complex process in which we observe the behaviour of others and then infer the causes behind it, and self-attribution, the process of knowing ourselves. On the other hand, it is based on social

cognition, the use of information to develop ideas of how we make sense of the social world by taking mental short-cuts and the interplay between affect (feelings, emotions) and cognition. These processes include learning and verbal communication. Personality psychology is the field of study which seeks to identify and measure relatively enduring personality dispositions and to determine the role of these in influencing behaviour.¹¹

Sociology is the scientific study of social behaviour among human groups. It focuses primarily on the theme of social relationships, on people's attitudes and behaviour and on how societies are established and changed. As a field of study it has an extremely broad scope, including specialisations such as communication, social psychology, sociology of health and various types of group interaction. Comte (1808-1857), who coined the term sociology, believed that the systematic investigation of behaviour was necessary to improve society.¹² There are mainly three perspectives in sociology, viz:

- the functionalist perspective, which emphasises the way in which parts of a society are structured to maintain stability¹³;
- the conflict perspective, which assumes that social behaviour is best understood in terms of conflict among competing groups¹⁴; and
- the interactionist perspective, which generalises about fundamental or everyday forms of social interaction. From these generalisations, interactionists seek to explain both macro- and micro-level behaviour. Interactionism is a sociological framework for viewing human beings as living in a world of meaningful objects, which may include material things, actions, other people, relationships and even symbols (including animals)¹⁵.

Adler's theories developed through three stages. The first stage attributed to explain behaviour from a psychological point of

According to Van Leewen¹⁶, social psychologists try to understand the dynamics and effects of various kinds of social interaction on thought, feeling and behaviour, while sociologists tend to be more concerned with overall group characteristics such as the function of historical, economic and other factors. Despite these differences in focus, there is still some disciplinary overlap. Both study small-group dynamics and have an interest in how individuals acquire and perform social roles.

With regard to environmental psychology, it is suggested that the term human-environment interaction be used, rather than human and environment, because of the active mutual influences between the two concepts. The physical outer-world is divided into a predominantly man-made environment and a predominantly natural environment. Man, via his psychobiological abilities, is in constant contact with, and part of the natural-physical and cultural-physical characteristics of the environment. Human ecology is the study of an interdependent or interactive relationship between man and the living environment (animals, plants, humans and their behaviour) and the non-living environment (natural, climatic, man-made).¹⁷

2.2 Interaction theories

This background on terminological concepts will be followed by a literature study on interactionism. A number of theories of established psychologists, as well as recent views on human needs and interaction, were chosen for consideration and evaluation. The theories will be dealt with briefly and selectively in order to provide the necessary framework to be used as premise for the rest of this study. Where the role of animals could be added to the theories, it was indicated in brackets.

2.2.1 Alfred Adler

Adler's theories developed through three stages. The last stage attempted to explain behaviour from a psychological point of

view, instead of his previous psycho-analytic or physiological models. Adler's final theory¹⁸ is humanistic and in this sense it has had a notable influence on other psychological theories, such as those of Horney, Fromm, Rogers, Maslow, Frankl, Lewin, Kelly and Allport, all of whom will be discussed in this chapter.

Adler¹⁹ said that humans function as a whole and behaviour is determined by setting specific objectives in order to achieve superiority, perfection and totality. This is a creative process in which genetic and environmental factors play a role, but are not deterministic in nature. Man has an innate desire to be of service to the total community and even the universe. Individuals may be only partly aware of their final aims. Adler's theory of striving for superiority by setting specific objectives to reach certain aims, can be described as teleological. The aim determines the behaviour engaged in to reach it. If feelings of inferiority are not compensated for in a balanced way, an inferiority complex will develop.

In psychotherapy, the family constellation, i.e. the relationship between family members and specifically the relative status of individual members, forms an important part of a child's developmental environment and influences²⁰ (animals may play a role where they are seen as members of the family).

2.2.2 Gordon Allport

Allport studied the individual as a structured whole. His theory is seen as one of the humanistic theories which were in opposition to behaviourism and psycho-analysis because of their one-sided views on human behaviour.²¹ He did not reject the other theories outright, but used a systematic eclecticism.²² Allport's theory is sometimes referred to as the trait theory, because of the uniqueness of every personality, acquired from the person's background and childhood experiences.

Although traits among people are common and can be compared, there may still be unique individual traits. In the course of development, each person acquires motives as part of satisfying basic needs. This is called the concept of functional anatomy of motives. These motives continue to function autonomously without further reinforcement of the physiological conditions originally concerned in their acquisition.²³

The human is an open system who interacts continuously with his physical and social environment. However, the human is not influenced only by environmental stimuli and needs as the behaviourists believe, or only by drives and his past as the psycho-analysts believe, but his behaviour is also determined by future planning, aims and expectations. Human behaviour can thus only be predicted if the human-being is studied in totality.²⁴

Allport²⁵ differentiated between opportunistic and proprial functioning. The first level tends to secure a biological existence which is directed at satisfying individualistic drives, i.e. the need for survival, and is thus to a great extent predictable. The second level of proprial functioning is seen as more important and is based on the human's free choice, which can override genetic and environmental influences.

With regard to psychotherapy, Allport's view of a mature person is that there should be a high degree of self-extension. The person should be intensely involved in matters outside himself, such as other people, hobbies (animals), ideas and an occupation. He should be as active in these extensions as if they are part of him and this should include warm relationships with other people. This "maturity" could be another term for "mental health".²⁴

2.2.3 Karen Horney

Horney has an optimistic view about man, which is based on the supposition that the personality is inherently disposed towards constructive development and growth. There is thus only a

degree of difference between mentally ill and normal people. The development of the individual's potential could either be enhanced or thwarted by the person's interaction with his environment, in which cultural factors, such as a child's relationship with his parents, is the most important form of role play.²⁶

There are two critical needs which aid personality development, viz the need for security or safety and the need for satisfaction of physical and psychic needs. With sincere love, warmth and trustworthiness, the parents can create an atmosphere in which the child's needs can be fulfilled. If this does not happen, basic anxiety and hostility may develop.²⁷

Horney identified 10 needs which may occur in all people, but which could, on a continuum, also develop in problem behaviour. Some of these are the need for affection and appraisal, the need for power or dominance, the need for social recognition and prestige and the need for personal adoration (which could also be provided by companion animals). These needs were later categorised into people who move towards other people, those who move against other people and those who move away from people. Normal people use all three in interpersonal strategies on different occasions, but a mentally ill person may choose one reaction and always use it, whether it is appropriate or not.²⁸

Horney saw psychotherapy as the acceptance of the self and an extension of the person's relationship towards other (including pets). This helps the person to free himself of his fixation on one type of personality.²⁶

2.2.4 Erich Fromm

Fromm's views are applied to being human in general rather than the individual's unique characteristics. He saw humans as dualistic beings with an animal and a human nature. The human's physiological needs follow physical natural laws and they are seen as animal in nature, while self-awareness, reason

and conscience are seen as typical of human nature. Based on their ethical-rational abilities, humans can transcend their instinctive animal-like behaviour and their actions are thus mainly determined by conscience and not instinct. These unsolvable conflicts are inherent to human existence. The pain of being human is further part of the fact that the human on the one hand wants to be free, and unrestrained, but on the other hand also wants to escape loneliness and isolation. There is thus a conflict between the individual and society which can only be solved through a balance between individual and societal demands.²⁹

"The necessity to find ever-new solutions for the contradictions in his existence, to find ever-higher forms of unity with nature, his fellowmen and himself, is the source of all psychic forces which motivate man of all his passions, affects and anxieties".³⁰

Five human needs³⁰ which represent the true human nature were identified, viz:

- the need to belong;

"The necessity to unite with other living beings, to be related to them, is an imperative need of the fulfilment on which man's sanity depends".

"... a union with somebody, or something outside oneself, under the condition of retaining the separateness and integrity of one's self. It is an experience of sharing, of communion, which permits the full unfolding of one's inner activity. In the experience of love lies the only answer to be human, lies sanity"³⁰.

- the need to achieve transcendence, either by creating or destroying;
- the need for security and safety;
- the need to have an identity - awareness of oneself; and
- the need to have a point of reference.

(Animals may fulfil some of these needs).

Fromm³⁰ believed that society is "insane" and that psychotherapy must be aimed at a sane society which will produce sane people.

2.2.5 Harry Stack Sullivan

Sullivan³¹ had an interest in how interpersonal factors influence personality development. Like Horney and Fromm, he did not deny the influence of inheritance and physiology, but did not see these as determining the personality and believed that they are inferior to interpersonal relationships. There is no personality outside the social interpersonal field, because from birth onwards humans function within an interpersonal context. Personality is the result of interpersonal relationships and man is always in interaction with people or objects (such as animals). People concentrate on mutual characteristics of other people (one-genus-postulate) rather than on differences in personalities. Sullivan did not deny the uniqueness of individuals, but he believed that the science of human behaviour cannot be based on that.

Sullivan³¹ saw humans as energy systems which are primarily aimed at reducing tension, which is caused by needs. This tension lies on a continuum from euphoria to anxiety and terror. There are four sources of tension, viz physio-chemical needs, the need for sleep or total relaxation, the need to cope with existential anxiety and the need for "tenderness", a term which he preferred to the word "love".

Psychotherapy is seen as a learning process to establish effective interpersonal or interactive relationships which will decrease anxiety. This learning process should take place in a suitable environment, such as a psychiatric hospital where an atmosphere of acceptance and interaction can prevail³¹.

2.2.6 Erik Erikson

Erikson's theory³² indicated the way in which an individual will develop by:

- a genetically determined progression, the epigenetic principle;
- the individual's ego, i.e. the desire to adapt to an environment and to control such an environment; and
- the nature of the social and broader cultural environment.

A complimentary relationship exists between individual and community, so much so that no clear line between the person and environment is described, but rather that they integrate with each other.

"One can only conclude that the functioning ego, while guarding individuality, is far from isolated, for a kind of commonality links egos in a mutual activation. Something in the ego processes, then, and something in social processes is - well, identical".³²

The result of an individual's development is caused by two simultaneous and complex influences, viz the genetic and social influences. The optimally developed person is someone who can successfully cope with every stage of development causing crises and who thus has all the necessary ego strengths. Erikson saw development according to the epigenetic principle which determines that it happens in a holistic way.³²

The development is according to stages, but the crisis experienced during every stage should be worked through from the start. This means that ideally there is optimal development during every stage, which includes hope, will-power, purposefulness, competence, reliability, love, attentiveness and wisdom. Optimal development also implies a deep-seated unity between individual and society.³³

Psychotherapy is based on the interpretation of play and other rituals (such as with animals) and the psychotherapist relies on the patient's own ego and ability to solve crises spontaneously.³³

2.2.7 John Dollard and Neal Miller

Dollard and Miller³⁴ are behaviourists who stated that learning processes are the result of need or drive fulfilment. Tension (or anxiety) is caused by two types of drives, viz primary or innate and secondary or acquired needs. Primary drives are the result of physiological stimuli which motivate the individual to fulfil needs such as hunger, thirst and pain relief. Secondary drives are the result of the individual's learning experiences in the physical and social environment. They can be described as a tension-releasing model.

From this point of view there are no differences between man and animal, and habits form after repeated primary or secondary stimulus-response situations. However, it is explained that behaviour is not always a simple and direct stimulus(S)-response (R) event, but can become complex owing to, for example, generalisation or discrimination of stimuli and a variety of responses. It can become something like S-r-s-r-s-r-s-R and is called stimulus-organism-response psychology. This is an expansion of the original behaviourist view.³⁵

Dollard and Miller claimed that they had combined these great currents in psychology, namely the psycho-analysis, the behaviourism and social sciences (anthropology):

"The ultimate goal is to combine the vitality of psycho-analysis, the rigor of the natural-science laboratory, and the facts of culture".³⁴

This is a learning theory which is loosely connected to Freudism, with the emphasis on reward and reinforcement of behaviour and socially acceptable learned skills, while unacceptable social behaviour becomes inhibited. There are four psychological principles in the learning process when a stimulus is linked with a response: drive; cues that provoke, i.e. the stimulus which the reaction canalised; the result of the first two; and reward.

"This may be expressed in a homely way by saying that in order to learn one must want something, notice something, do something and get something".³⁴

In psychotherapy, it is important to provide an environment and conditions where reconditioning will be possible. A new learning situation should be created. The atmosphere should be safe and non-threatening and there should be a reward for acceptable behaviour.

"The therapist creates a social situation that is the exact opposite of the one originally responsible for attaching strong fears to talking and thinking".³⁴

The optimum development is for an individual to fulfil his needs (drives, primary and secondary) without creating conflict between the person and society (and this is where animals may play a role).

2.2.8 **Albert Bandura**

The social learning theory has more support among academic psychologists than any other personality theory, because it

integrates behaviour and the gestalt or field theories successfully.³⁶

Bandura's theory agrees with behaviourists that behaviour is mainly learned and that studies should concentrate on observable behaviour. However, it also deals with self-regulating processes such as thought, symbolism, expectations, planning, self-assessment and convictions. It does not include psycho-analyst concepts, but rather concepts from the cognitive, gestalt and phenomenology psychology. It also emphasises the role of observation as the most important part of learning and the fact that reinforcement is not always an essential part of learning. Behaviour is acquired through environmental, especially social influences, while genetic factors play a small role.³⁷

The principle of mutual determination means that behaviour is caused by the interaction of the individual, the situation and the behaviour which occurs during the situation. The person is now an active participant that observes stimuli, evaluates them, plans according to certain expectations and specific aims, makes the necessary plans to achieve these aims, evaluates the behaviour, replans and changes the behaviour if necessary. This is an explicit interaction viewpoint in which behaviour results from a mutual effect the individual and the environment have on each other. It is not a single matter of response to drives or stimuli which should be fulfilled or met, but the individual may select and interpret environmental factors and can subjectively punish or reward himself for his behaviour. The behaviour is situation or individual dependent. The individual's self-system is thus in control of his observation, planning and judgement and include functions such as perception, pride or shame about own behaviour and self-confidence, which leads to self-efficiency. Bandura rejects explanations of behaviour on the basis of needs, drives and the subconscious. The existence of certain biological needs are, however, accepted, but this is a complex matter.³⁸

Psychotherapy is based on the improvement of the person's self-effectivity in the situation which creates problems, e.g. by using

models. Such models need not necessarily be another person. Modelling is flexible and versatile³⁷ (and could include animals).

2.2.9 Henry Murray

Murray³⁴ recognised the influence of physiological factors on behaviour. He believed in the working of the sub-conscious, he used social-sociological and social-psychological explanations to indicate the influence of social factors, but he also made provision for the individual's imagination and allowed for a phenomenological approach. Murray distinguished between bodily (viscero-genic) and psychological (psychogenic) needs and believed that the latter do not merely develop from the first. Happiness is not to live in a tension-free condition, but to live in the process of tension release. There is a difference between internal behaviour (which is not directly observable, such as thoughts, feelings, memories, fantasies, evaluations and future planning, although verbal communication may occur on the subject) and external behaviour (which includes activities with some object). Most concrete behaviour will consist of both. Murray was of the opinion that a person's personality, despite the changes and development thereof, has relatively permanent regulators, which are called establishments of personality. Such establishments determine the person's conduct and help to predict behaviour. Humans' behaviour is directed via the interaction between the individual's needs and the environmental pressure (situation). His definition of a need is as follows:

"A need is a construct (a convenient fiction) or hypothetical concept which stands for a force (the physico-chemical nature of which is unknown) in the brain region, a force which organizes perception, apperception (expectation), intellection, conation and action in such a way as to transform in a certain direction an existing, unsatisfying situation".³⁹

Needs can be caused by internal physiological conditions or environmental pressure. The need is expressed by a person looking for certain types of environmental pressure or avoiding it. Needs are characterised by accompanying tension until they are fulfilled. After a rest period they will return, the so-called periodicity of needs. Some of the needs described are:

- need linked to ambition, recognition, achievement;
- need to avoid humiliation;
- need to control or to be controlled;
- need to enjoy life;
- need to self-improvement;
- needs regarding information; and
- needs of affiliation and other human relationships³⁹ (all of which may involve animals).

Murray said it is impossible to understand and predict behaviour if the context of the interaction of the situation is not taken into account. The influence of the environment and objects in the environment is referred to as environmental pressure:

"The press of an object is what it can do to the subject or for the subject - the power that it has to affect the well-being of the subject in one way or another".³⁹

Identical objects may have different influences on different people and people will not react in the same way to such influences, because the individual's interpretations and expectations must be considered. This brought about the following famous passage:

"Every man is in certain respects

- like all other man,
- like some other man,
- like no other man".⁴⁰

Psychotherapy is thus based on the assumption that there is a universality, a similarity and a uniqueness in every individual's personality.

2.2.10 Abraham Maslow

Maslow's⁴¹ most important theme was the fulfilment of the individual's potential. The environment plays an important role in the fulfilment of basic needs and people need a positive environment to develop their best potential. He proposed five basic and hierarchical needs which form the basis for growth and the quest for self-fulfilment:

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> - biological needs for physiological functions - needs for safety, stability and order - needs for love or affiliation - needs for recognition and self-esteem | <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; width: 50px; height: 50px; margin: 0 auto;"></div> | <p>Deficiency motives for survival</p> |
| <ul style="list-style-type: none"> - needs for self-actualisation | <div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div> | <p>Growth motives</p> |

(Animals can play a role in fulfilling these needs in various ways).

Modern society often lacks quality affiliation, despite the fact that many people live close to one another. This causes feelings of loneliness and isolation. Affiliation may also include a specific environment and it may have links with environmental psychology.⁴²

Maslow⁴¹ postulated that the growth needs are a part of human needs just as the basic needs. It is possible that an individual's behaviour is not determined by needs of one level, but by more than one level and a person's needs can also descend from higher to more basic needs. Maslow was also prepared to acknowledge that there may be exceptions in his hierarchy of needs.

With regard to psychotherapy, self-actualisation cannot be achieved if the other needs are not fulfilled. The therapist should be a facilitator in this regard and should create the circumstances and atmosphere in which the person can fulfil his needs and grow.

2.2.11 Carl Rogers

Rogers⁴³ saw himself as a member of the humanistic-phenomenological school of thought. He believed in the constructive potential of the individual, and the individual's essential purposefulness, progressiveness and ability to change. The person's self-concept is important in his functioning, and the person is the central figure in achieving his potential, while the environment plays only a facilitating or inhibiting role in this regard. The actualisation of potential is achieved in an atmosphere of unconditional acceptance of what a person is and where such a person can feel free to develop without limitations from outside, in a non-threatening situation. Self-concept distinguishes humans from plants and animals, because humans are conscious of their life-world and they can evaluate their experiences. The person as central figure is referred to as an organism (total individual) who is in continuous interaction with its total life-experiences or phenomenon-field. Behaviour is furthermore determined by subjective observation of experiences and the self. The interaction is dynamic and ever-changing. A person with a self-concept of a cold and loveless personality can become aware of love, by showing love to a pet and this could be the beginning of a change in self-concept that can be extended to other people. The self-concept is developed gradually because of the individual's (organism's) interaction with the social environment, where the individual will receive evaluation from others. In this regard significant others play a determining role. Approval or disapproval is not always given verbally, but attitude and posture may have the same effect. An optimally functioning person is one with broad life-experiences and one who could realise his potential.⁴³

In psychotherapy the client is placed in a central position and the client should take responsibility for changes in his own life. The therapist acts as facilitator and creates an atmosphere of unconditional acceptance, warmth and empathy where the person can feel safe (non-threatening, as with a pet animal) and free to change to congruency and actualisation.

2.2.12 **George Kelly**

Kelly⁴⁴ was convinced that man's behaviour is based on cognition and on acting like a scientist, stating and testing hypotheses in order to predict and control his environment. This is achieved by a construction system with sub-systems. People may have alternative ways of interpreting and consulting their environment (or the world). It is more important to ask whether a construct is working (pragmatism), than to ask whether it concurs with a reality, because reality is of less importance than the individual's representation of his life-experiences (phenomenology).

In psychotherapy, the therapist should attempt to understand the other person's construction systems. The therapist must have a broad and flexible approach to incorporate other people's constructions. From this a desirable construction system is designed and the person is given a fixed role to play (fixed-role-therapy may include animals). This may lead to self-insight and provide the first step to reconstruct the person's construction system.⁴⁴

2.2.13 **Victor Frankl**

Frankl⁴⁵, as an existential phenomenologist, added another dimension to being human. He said man is essentially a spiritual being with freedom and responsibility and this makes him more than a highly developed animal whose behaviour is determined by heritability and environmental factors. Bodily functions, psychological and social factors of being human, represent the natural

aspects which could correspond with animal needs, but for humans it is more important to find the meaning of life than to struggle to survive.

"I believe there is no such thing as psychotherapy unconcerned with values, only one that is blind to values. 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'".⁴⁵

The person who feels there is meaning in life, has found direction and a goal in life. Man is directed by values and ideals outside himself. To find meaning in life is stronger than any other motivation.⁴⁶

Man is an open system and can transcend and become more than what he is, even in difficult circumstances:

"It is a characteristic constituent of human existence that it transcends itself, that it reaches out for something other than itself. Man's heart is restless unless he has found and fulfilled, meaning and purpose in life".⁴⁶

The meaning of life is found by three types of experience which can be described as values, viz creative values, values via life-experiences (of which the most important and all-inclusive is the experience of love) and values of attitude:

"By changing ourselves (if we can no longer change our fate), by rising above and growing beyond ourselves, we exercise the most creative of all human potentials".⁴⁷

Logotherapy is essential to make a person aware of aspects outside himself which could elicit responsibility and which could stimulate love, care and involvement. The meaning of life is not prescribed, but the person's attention is drawn to it. In this way the person is directed at something outside himself which gives meaning to life. (Companion animals can be such a focus of attention).

"Through de-reflection, the patient is enrolled to ignore his neurosis by focusing his attention away from himself. He is directed to a life full of potential meanings and values that have a specific appeal to his personal potentialities".⁴⁷

2.2.14 Kurt Lewin

Lewin⁴⁸ described the dynamic interdependence between man and environment, known as the field theory. The individual's behaviour can be predicted by knowing his life-world which includes the total, subjective lived (also with animals) and psychological environment which could influence his behaviour, i.e. behaviour is the function of the life-world. This approach attempts to put forward a pure psychologically-orientated theory where neurological, physiological, biological and chemical concepts are ignored.

In Lewin's⁴⁸ holistic view, man is seen as part of the world. The person's life-world exists in two parts, namely the psychological environment (which is divided into demarcated areas), and the person (who is differentiated in the outer perceptual-motor area and the inner central and peripheral cells). The life-world is enclosed in the non-psychological environment ("foreign hull"). The non-psychological world cannot influence the person directly before it enters the psychological world as a fact. All borders are characterised by permeability. Identified areas in person and environment can communicate freely, less freely or only in one

direction and the distance between areas can make influence less effective.

The aim of psychological processes is to find equilibrium in all the dynamic changes of needs, energy, tension, valency and vector (force). In the same way that the individual and his environment form a psychological field, a group and its environment form a social field.⁴⁸

There is more to group behaviour than the properties of its individuals and they form dynamic wholes in sociology and social psychology. The group acts as a dynamic system and group therapy is thus an approach in psychotherapy⁴⁹ (and it may include companion animals).

2.2.15 Fritz Perls

Perls⁵⁰ was of the opinion that people must have the ability to make contact with their own being and environment and in doing so, gain control over their own life. Authenticity and honesty are part of such contact. The greater awareness is reached, the better self-regulation is possible. The person always functions as an integrated whole organism and as a unit (holism). Despite the fact that man functions as a unit, he cannot exist without his environment and he is always in contact with his environment. As the human organism needs his physical environment for oxygen, water, food and other physical needs, he also needs his social environment for the exchange of love, friendship and other social needs (animals can fulfil such needs). The most fundamental characteristic of man is still that he is a biological organism subject to the same processes which regulate all living organisms. Internal or self-regulation is an inherent characteristic of the organism which happens spontaneously; it is primarily directed at fulfilling the organism's needs. External regulation interferes with this spontaneous process of self-regulation, causing a disturbance between the organism's gestalt and his environment. Such a disturbance can split the unity between organism and

environment. An optimally functional person experiences unity between himself and the environment and is self-regulating. If the physiological needs or psychological contact needs become disturbed, these will attempt to find equilibrium by homeostasis. The two types of needs are, however, interdependent.

"Let me make it very clear, however, that this psychological process cannot be divorced from the physiological one, that each contains elements of the other".⁵⁰

Perls⁵⁰ said man has an ego boundary which should not be too rigid or too flexible, which is always in interaction with his environment (including animals) by contact and withdrawal in order to fulfil needs (incompleteness). Neither of the processes is in itself good or bad, as long as it is regulated to complete the organism's gestalt.

Perls saw problem behaviour as follows:

"All neurotic disturbances arise from the individual's inability to find and maintain the proper balance between himself and the rest of the world ... in neuroses the social and environmental boundary is felt as extending too far over into the individual".⁵⁰

Psychotherapy or gestalt-therapy is based on the experience between You and I in the Here and Now. The person must discover how he avoids taking responsibility for his own existence. It is a process of development and maturity, leading the organism to self-regulation - a complete gestalt.⁵²

2.2.16 Phenomenological psychology

Psychology as a science can be indifferent to the human condition. The problem is not to understand man at all, but to

understand something about the science of man. Man is in dialogue with a meaningful world, because he lives in relationship to the world. Heidegger in this regard, referred to man's "Dasein", his being-in-the-world:

"To be at all, to exist, is to be with fellow man and things. Our existence is mundane, which again simply means that whether we are living in the daily mode or in the authentic way our life is always structured in terms of the world. Our existence is ... always involved in our experience of world and fellow man".⁵²

Psychology has to take note of the fact that the human being is a self-interpreting creature. A person tells his own experiences and what these mean to him. All psychology rests upon communication and for phenomenologists the world is a system, a cosmic totality of meanings. Man is always the centre of his own world, but being human means being in relation to others (including animals) with whom the world is shared.

Psychotherapy is either a true encounter or nothing. Within this true encounter, the person gradually gains courage to be completely himself. People participate in the world, but people are also shaped by the world in turn. The person's lived experiences should be communicated to determine the person's existence in the real world. The more the human being is alienated, dehumanised and even depersonalised by technology and technocracy, the more sensitive people will need phenomenological psychology and psychotherapy.⁵²

2.3 Ideas from the natural sciences

To conclude the opinions on personality, ideas from modern natural sciences are discussed briefly. Although scientists in human behaviour rarely, or ever, give an opinion on physics, the

reverse is not true. In modern science philosophy, scientists from the so-called hard sciences often have opinions on human behaviour and human sciences.⁵³ In this section contributions from Capra, Zohar (with her husband Marshall) and Davies will be discussed, as well as the science writer, Appleyard. The purpose of the last four contributions is to indicate a bridge between human and natural sciences, a theme which also forms part of this study.

2.3.1 Fritjof Capra

Capra, a physicist, is of the opinion that holistic frameworks (which are often used in behavioural sciences) are as scientific as the reductional and mechanistic approaches in physics:

"Modern physics can show them that such a framework is not only scientific, but is in agreement with the most advanced scientific theories of physical reality".⁵⁴

Capra⁵⁴ said that scientific theories can never provide a complete picture of reality and will always be approximations to the true nature of things or bluntly put, scientists do not deal with truths. This idea is based mainly on the uncertainty principle in modern-day quantum physics. Capra quoted David Bohm, who said that one should not deal with the structure of objects, but rather with the structure of movement, thus taking into account both the unity and the dynamic nature of the universe. Mind and matter are interdependent and correlated, but not causally connected and are mutually enfolding projections of a higher reality which is neither matter nor consciousness.

Biologists know the alphabet of the genetic code but have almost no idea of its syntax. Less than 5% of the DNA is used to specify proteins and all the rest may well be used for integrative activities about which biologists are likely to remain ignorant as long as they adhere to reductionist models. In medicine, em-

phasis is often placed on the advancement of scientific knowledge instead of healing and that is why contradictory statements are sometimes made by leaders in this field. Medical scientists should relate their studies of the biological aspects of illness to the general physical and psychological condition of the human organism and its environment (which includes animals). The person's psychological state is crucial to the process of healing and the patient's psychological response to the physician plays an important part, perhaps the most important part of any therapy. Shlain, as quoted by Capra, said that the art of healing cannot be qualified. The current power of biomedical dogma dictates that biological mechanics are seen as the basis of life and mental events as a secondary phenomenon. Physicians who deal with mental illness are considered as somehow less important.⁵⁴

"In many cases, psychiatrists have reacted to this attitude by adhering rigorously to the biomedical model and trying to understand mental illness in terms of a derangement of underlying physical mechanisms in the brain. According to this view, mental illness is basically the same as physical illness; the only difference is that it affects the brain rather than some other organ of the body, and thus manifests itself through mental rather than physical symptoms. This conceptual development has led to a rather curious situation. Whereas healers through the ages have tried to treat physical illness by psychological means, modern psychiatrists now treat psychological illness by physical means, having convinced themselves that mental problems are diseases of the body.⁵⁴

In the chapters "The Systems View of Life" and "Wholeness and Health", Capra⁵⁴ explained that the new vision of reality is based on awareness of the essential interrelatedness and interdependence of all phenomena - physical, biological, psychological, social and cultural. It transcends current disciplinary and conceptual boundaries and will be pursued within new institutions. None of the theories and models will be any more fundamental than the others and all of them will have to be mutually consistent. There are larger manifestations of mind of which our individual minds are only sub-systems:

"Our attitudes will be very different when we realize that the environment is not only alive but also mindful, like ourselves".⁵⁴

The systems view of mind is not limited to individual organisms, but can be extended to social and ecological systems. Humans as social beings cannot keep well, physically or mentally, unless they remain in contact with other human beings. The systems view of living organisms can provide the ideal basis for a new approach to health and health care.

A healthy organism has to preserve its individual autonomy, but at the same time it has to be able to integrate itself harmoniously into larger systems, thus to be healthy means to be in synchrony with oneself - physically and mentally - and also with the surrounding world. Stress is an imbalance of the organism that occurs in response to environmental influences and when the organism loses its flexibility. The aim of therapy should be to create balance, flexibility and social contact (which include animals).⁵⁴

2.3.2 Danah Zohar and Ian Marshall

Both authors have backgrounds in the natural and human sciences. Zohar studied at the Massachusetts Institute of Technology in physics and at Harvard University in philosophy

and religion. She lectures at the Oxford Brookes University in science and culture. Marshall lectured in mathematics at Oxford University, studied psychology and philosophy and is currently a psychotherapist. They proposed that there are many analogies between quantum reality and the dynamics of the self and society.

However, the connection between physics and society is not a completely new idea. Auguste Comte, who first used the word "sociology" in 1838, had intended to name the new science "social physics". He rejected this term after a Belgian, Adolphe Quételet, began to make involved statistical studies of society which he also called "social physics". Eventually society was defined as men in interdependence and that became the subject matter of sociology.⁵⁵

In modern terms the quantum society is described as a "free-form dance company, each member a soloist in his own right but moving creatively in harmony with the others". The authors opposed a mechanistic approach to organisms and said that living systems (including animals) had been designed to cope with ambiguity and creative challenges. Man and society are compared to the quantum characteristics of being presented as either a particle as a measurable (quantum) energy or as a wave:

David Davies

"With our particle aspect we stand apart and experience life from our own point of view, with our wave aspect we are literally taken by, woven into, the being of others and all that surrounds us. It is this duality that makes us persons and members of a community. It accounts for the sense of fulfilment, the sense of truly coming home to ourselves, that each of us feels when we genuinely become part of something larger than ourselves".⁵⁶

is characterized by unusual properties which include the degree of complexity which is highly self-organized and harmonized to the extent that the

At a person's core (particle aspect) he is a recognisable but ever-changing pattern and at his periphery (wave aspect) he is a teaming web of relationships where he is both self and other. This is most strangely demonstrated in an intimate relationship where it often becomes impossible to say where "I" end and "you" begin.⁵⁶

Self-organising systems thrive on challenge and are poised on the brink between order and disorder. Too much disorder will result in the system being torn to pieces, but too much order will lead to dissipation. If the system falls out of dialogue with its environment, it will run down. A mind that ceases to take in new information grows less alert and conscious. Set routines are a threat to the self, including routine social relationships. Meeting others is both difficult and necessary and if people want to live full "quantum" lives, they should always balance habit with an openness to new experiences. At the quantum level measured qualities relate externally, but they do not get into emergent correlation, because their internal characteristics do not change with the relationship. It is when quantum qualities are in the unmeasured state that they become synchronised. They become defined in terms of the relationship and the relationship gives rise to new realities.⁵⁶

2.3.3 Paul Davies

Davies is a professor in Natural Philosophy at the University of Adelaide. He obtained a PhD from the University of London and held academic appointments at the Universities of London, Cambridge and Newcastle-upon-Tyne. Davies⁵⁷ is of the opinion that, although quantum effects are normally restricted to the micro-world of atoms, in principle physics should apply to everything, e.g. the quantum physics of the entire universe is known as quantum cosmology. A common language is also developed for the description of both living and non-living systems. However, life is characterised by a constellation of unusual properties which include the degree of complexity which is highly (self-) organised and harmonised to the extent that the

organism functions as an integrated whole. Every living organism is unique, both in form and development, although they seem to be both special and general in a rather precise way. At each new level of complexity in biology, new and unexpected qualities appear (such as the positive interaction between person and animal), qualities which cannot be reduced to the properties of the component parts. Despite the fact that many biological processes are essentially automatic and mechanical, organisms seem to possess an intriguing will of their own to become not fully predictable and they seem to be guided towards a final goal (teleology). Lastly, no living thing exists in isolation. All organisms are strongly coupled to their inanimate environment and require a continual throughput of matter and energy as well as the ability to export entropy. Davies described life as follows:

"The concept of life is fully meaningful only
in the context of the entire biosphere".⁵⁷

While reductionists are looking for a Theory of Everything, progress occurs on the opposite front at the interface of physics and biology, where the goal is not to understand what things are made of, but how they function as an integrated whole. In a Theory of Organisation, the concepts are complexity rather than simplicity and organisation ("software") rather than structure ("hardware"). In these studies, it is becoming clear that there must be new general organising principles which are above the known laws of physics, laws which have yet to be defined. The self-organisation and complexity of nature may have their own laws, coming into operation at each emergent level. Davies referred to Elsasser, who called these laws biotonic. They act at the holistic level of the organisation and these laws can easily be missed when the traditional methods of scientific investigation are used.⁵⁷

It is a general property of complex systems that above a certain threshold of complexity, new qualities emerge that are not only absent but also meaningless at a low conceptual level. When the realm of conscious experience is entered again, a threshold of

organisational complexity is crossed, that yield its own new concepts of thoughts, feelings, hopes, fears, memories, plans and volitions.

"A major problem is to understand how these *mental events* are consistent with the laws and principles of the physical universe that produces them".⁵⁷

It does not mean that psychology must reject the laws of physics and find its own, but rather that there are additional kinds of theories and principles that operate at higher levels of any organisation. Davies predicted that the lower level of processes will never be fully understood unless the higher levels of laws are also understood. Mental events do not represent the pinnacle of organisation and complexity in nature, because there is yet a further threshold to cross. This is into the world of culture, social organisations, works of art, religion, philosophies and the principles of economics. These cannot be reduced to the laws of physics. These abstract entities transcend the mental experiences of individuals and represent the collective achievements of human society as a whole.⁵⁷

2.3.4 Bryan Appleyard

Appleyard⁵⁸ is a science writer who argued, referring to Wittgenstein, that even when all possible scientific questions have been answered, the problems of life remain mainly untouched. He felt that current science is a form of mysticism that proves peculiarly fertile in setting itself problems which only it can solve.

"Science begins by saying it can answer only *this* kind of question and ends by claiming that *these* are the only questions that can be asked. Once the implication and shallowness of this trick are realized, fully realized, science will be humbled and we shall be free to celebrate ourselves again. And that should

mean that science can become itself again rather than the quasi-religious repository of all our faith defined by popularizers. We would have forced science to co-exist by turning it into something else, something more human".⁵⁸

Appleyard⁵⁸ stated that what we are, is what we ordinarily are. Man is not what science tells him he is, but he is his own person with a unique history between birth and death. Human beings as a whole may have invented or evolved the idea of a soul, but does it make him any less real or less permanent, because it has outlasted all scientific conception. The implication for the understanding of human behaviour is that there is more to it than the science which was developed over the past four centuries. The ordinary life as experienced within its cultural context is often unmeasurable in scientific terms, but it is no less of a reality.

2.4 Interpretation of interaction theories

The previous section indicated in an elective way how 20 different recognised contributions in traditional personology and modern multidisciplinary commentaries confirmed that human-human, human-nonhuman and human-inanimate environment interaction is a fact of life. Furthermore, new approaches in science and therapy opened the way to less mechanistic and more natural methods of treating disturbed patients. An interpretation of statements about these contributions follows and the role companion animals can play is indicated.

- Man strives for superiority, e.g. control over a companion animal, by setting specific objectives which are teleological rather than deterministic in nature. If this aim is not met, an inferiority complex develops, which will be compensated for, and the person will become hypersensitive or will over-compensate.

- Man has general and individual traits or motives. As an open system, man interacts continuously with the physical and social environment. However, man is also influenced by more than genetics and environment by free choice and self-extension, by being active in matters including relationships outside himself, e.g. with a companion animal, as if it is part of himself.
- Man's personality is determined by development which takes place in either a negative or positive environment in which he interacts, including fulfilling basic needs such as love, e.g. with a companion animal.
- Man's physiological needs follow natural laws and do not differ greatly from animals, but self-awareness, reason and conscience are typical of human nature and these ethical-rational abilities can determine behaviour. Man wants to be unrestrained, but also escape loneliness, which could cause conflict between individual and society and which must be solved in a balanced way. To use animals as company in order to escape loneliness can avoid such conflict.
- Man is always in interaction with people or objects, such as companion animals, in order to fulfil basic needs.
- Man and his environment, including companion animals, is so intertwined that they become integrated. The individual's development is caused by the simultaneously complex influences of genetic and social influences.
- Man fulfils needs (also via companion animals) which could be innate or acquired, the first the result of physiological stimuli and the second the result of learning experiences.
- Man learns from particular models, including companion animal models, in an interactive way, known as social learning.

- One of man's basic needs is interaction with other humans, or companion animals as substitutes and in human behaviour there are signs of universality, similarity and uniqueness.
- Man's needs could be hierarchically defined as survival and growth motives, which include needs for safety, love and affiliation, all of which could be fulfilled by companion animals.
- Man's self-concept makes him conscious of his life-world and he can evaluate his experiences and the dynamics of his interaction with the environment, which includes interaction with companion animals as part of his environment.
- Man's behaviour is based on cognition and he constructs systems and subsystems which may involve companion animals.
- Man is over and above a physiological, psychological and social being also a spiritual being, seeking meaning in life outside himself, and companion animals can provide some meaning outside the self.
- Man and environment, including animals, are interdependent and both have an interaction influence on each other. Man should strive for a balance between needs and environment and social fields.
- Man functions as an integrated whole in his environment which again, could include companion animals. This unit (gestalt) is also self-regulating.
- Man is in dialogue with the world, he is self-interpreting and his personal experience and perception is what he is. The experiences and perceptions can include companion animals.

Concepts in modern science philosophy:

- Modern physics based on holistic frameworks is less reductionistic, but closer to complex biological systems. However, psychologists often still want to explain behaviour in a linear, mechanistic way. Companion animals as therapeutic agents may thus be acceptable in this modern systems approach.
- Quantum physics' principles of interaction, unpredictability, observer dependence and dynamics, which vary between measurable energies (quantum particles) and waves (free flow energy), are all applicable to human societies. Companion animals already play a significant role in human societies and should be considered as part of such dynamics.
- Complex systems produce new unidentified laws which operate in behaviour and mind. Basic physical laws are inadequate to explain these phenomena. Human-companion animal interaction is such a complex system with benefits which cannot always be explained by known physical laws.
- Man's science is not as objective as he wants it to be. Science is and will always only be a part of man's behaviour and behaviour must be studied from a human's point of view and not via a "science" outside man, i.e. the "self" is the frontier science which we are unable to cross. Although the use of companion animals as therapeutic agents may not be generally acceptable as "a traditional science" in psychiatry, "science" is changing, it is becoming more "human" and the inclusion of a common human experience such as the relationship with companion animals could now be quite acceptable.

2.5 Discussion

It is clear from the corpus of knowledge in this chapter that two aspects about man were emphasised:

One is that man has all the characteristics of living organisms, namely the physiological functions which keep the body in homeostasis, as well as behaviour patterns which interact with the internal bodily functions and the outside environment. Man, however, is in his behaviour also more than other organisms, because of self-awareness or self-consciousness, language, abstract and symbolic ideas, creativity, finding meaning in life, spiritual experiences, self-evaluation and self-improvement.

The second aspect is that humans have complex social and environmental interactions with regard to culture (own group), intraspecies (other groups), interspecies (animals and plants) and the inanimate environment (man-made and natural environment). These interactions are governed by (biotonic) laws other than the currently known laws of physics and biology. It seems that complex phenomena organise themselves regardless of linear formulae of cause and effect. This could result in situations where phenomena occur successfully in ordinary life, but do not receive the status of "science", because of limitations that science has placed on itself. Science as a human endeavour is, however, subject to re-evaluation and change and what science is today, may not be science in the future. The use of animals as therapeutic agents may fit exactly these developments.

With these premises of man as special interactive organism and life sciences that could entail more than reductionistic mechanistic approaches, the next chapter will deal with the role of human-animal interaction in the context of human-human interaction, where the fulfilment of attention needs forms the basis in both cases. The line of thinking can be depicted as follows:

