

# CHAPTER 6 META-METHODOLOGY

#### 6.1 INTRODUCTION

An international, as well as a national literature search on management communication, theories relating to this concept, and a comparison relating to these theories were undertaken, the results of which were discussed in Chapters 2 to 5. The objective of this literature study was twofold, the **first** being to provide a conceptual foundation for the development of a theoretical framework for a uniquely South African management communication philosophy. In this regard the underlying constructs were discussed based on a systems approach.

The **second** objective of the literature study was to condense large volumes of data into manageable clusters to formulate guidelines for the empirical investigation.

In terms of the Mitroff & Kilmann (1978) model, which serves to guide the scope and structure of this study, this chapter represents activity 2 (modeling) and circle III, scientific framework. The results of the empirical investigation will be used to develop a model for the future development of a measurement instrument.

# 6.2 THE EMPIRICAL RESEARCH

#### 6.2.1 THE RESEARCH PROBLEM

As mentioned in Chapter 1, a description of a measurement instrument to monitor the existence and applicability of a uniquely South African management communication style has not been described, and that the



broad aim of this study was to take the first steps in the construction of a model which will, with further research, eventually result in such a measurement instrument.

#### 6.2.2 THE RESEARCH DESIGN

The research design is the conceptual structure within which research is conducted (Kothari 1997:37), and is tantamount to rational decision making<sup>3</sup> during the research process (Mouton & Marais 1996:33). Three kinds of decisions are involved in any 1 research process i.e. strategic, tactical and operational decisions (Groenewald 1986:7). Strategic decisions determine the general orientation of the study, points of departure and methods for the whole undertaking on the longer term, the most important of which he describes as the form of explanation used for the research problem. He argues that the most important decision to make regarding the scientific approach to the research problem is the choice between the nomothetic and the idiographic approaches, an argument which originated with Wilhelm Windelband in 1894 (Mouton & Marais 1996:48). Windelband emphasises that the classification which he proposes is a methodological classification, and that it does not relate to a classification of the scientific content as such. For this reason it is more appropriate to regard the nomothetic and ideographic as the extremes of a single continuum, depending on whether the similarities in differences are emphasised (nomothetic) or whether the focus lies with differences in similarities (ideographic).

Emory & Cooper (1991) are concerned with the lack of a simple classification of research designs, saying that it can be viewed from a number of different perspectives.

<sup>&</sup>lt;sup>3</sup> Mouton and Marais (1996:23) makes a distinction between the decision-making process on the one hand, and the determinants of research decisions on the other hand, the latter focusing on the researcher's framework of problem-oriented beliefs which is a determinant of his or her research decision. The researcher has addressed these beliefs implicitly throughout the research process.



The research design specifies the methods and procedures for the collection, measurement and analysis of the data.

**Tactical** decisions in research design refer to the manner in which data are obtained and arranged in order to yield findings, and are considered in conjunction with operational decisions about the preferred sources of data and the strategic decision.

**Operational decisions** refer to the choice of techniques of observation and are determined mainly by considerations regarding the researcher-object relationship.

# 6.2.2.1 Strategic decisions

The strategic decisions made in this research has been described in the foregoing chapters, and are based on theories derived from the literature, facilitating the conceptual framework and general orientation towards the concept.

As mentioned in 6.2.2, the general orientation and departure for any study determine the choice that will be made between a nomothetic and an idiographic approach. The idiographic approach typically concentrates on the study of one case, event or phenomenon at a time. With this approach a researcher attempts to understand the occurrence (or *visa versa*) of this phenomenon or event in terms of all the factors that contributed to it, including those which ostensibly occurred by chance or which are unique. Mouton and Marais describe it as "that which is unique or distinctive in a situation" (1996:49).



Groenewald (1986) argues that the idiographic mode of explanation aims at incorporating a multitude of factors, including accidental factors, and the adequacy of such an explanation is usually judged on the comprehensiveness of this collection of relevant factors and is suited to studies where conceptualisation is system-specific or culture bound.

At the other end of the continuum, as explained by Groenewald, is the nomothetic mode of explanation, which constitutes the study of a multitude of cases, events or phenomena in terms of factors or variables which possibly occur in a causal relationship to each other. Its aim is typically an attempt to determine the statistical probabilities of relationships between causes and effects. Instead of incorporating as many factors as possible – as in the idiographic approach – an attempt is made to isolate variables or factors, in order to eliminate the operation of other excluded variables, so that the contribution of the isolated variables to the phenomenon may be established.

Nomothetic enquiry tends to use context-free, system-inclusive conceptualisation by which the unique meaning-constructs are forfeited for the sake of generality of the concepts. Nomothetic explanations are judged in terms of the proportion of the variation among cases which can be explained by means of the causal model in the class of phenomena under discussion.

Considering the distinction between an idiographic and nomothetic approach to scientific practice, this study can be described as having a bias toward the idiographic approach as illustrated by Figure 6.1.



Figure 6.1 The position on the continuum between the idiographic and nomothetic approach of the study.

NOMOTHETIC\_\_\_\_\_ IDIOGRAPHIC APPROACH

Source:

Researcher's interpretation

The position on the continuum between the idiographic and nomothetic approach of the study can be motivated as follows:

#### The phenomenon

The aim of this study is to construct a uniquely South African management communication model. The purpose of the model is to ultimately develop an instrument to measure management communication in South African organisations.

As the field of study is pre-theoretical, an analysis of the current state of the theory of management communication in Western (primarily the US as largest economy in the world), Japanese (second largest economy in the world) and African (as the continent where South Africa is situated) will determine the theoretical framework for the study. All the relevant factors constituting a management communication model have to be considered, suggesting a ideographic approach. In studies where the construction of a model occurs, detail is important to establish a frame of reference.

However, an attempt will be made to isolate variables or factors to identify the relevant factors and the relationship between them, indicating a nomothetic approach.



#### Construction of a model

The term "model" is an ambiguous term in the social sciences, and is sometimes used as a synonym for theory. Achinstein (1968) and Gorrell (1981) maintain that the differences between models and theories are largely differences of degree. For the purposes of this study, the differences are emphasised.

The heuristic function (Mouton and Marais mentions that heuristic literally means to discover or to reveal) is the most common characteristic of models, while the explanatory function is usually attributed to theories. In a model, an attempt is made to represent the dynamic aspects of the phenomenon by illustrating the relationships between the major elements of the phenomenon in a simplified form, supporting the nomothetic approach.

Models do not pretend to be more than a partial representation of a given phenomenon. Certain irrelevant information are conveniently excluded in the model, while the most obvious, and in the case of this study, scientifically proven characteristics of the phenomenon, are included. This guiding function of models is referred to as the heuristic function and suggests new areas of research. Certain relationships and dimensions are emphasised to an unusual degree, suggesting this study is of contextual interest and therefore has an ideological approach.

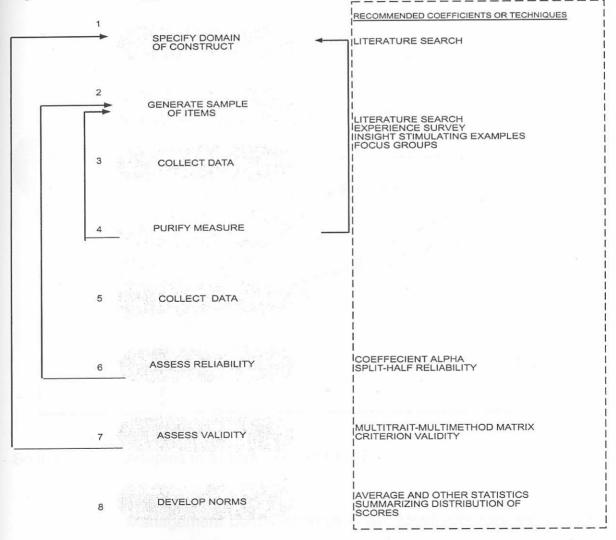
# A paradigm for developing constructs

Churchill (1979) outlines a procedure which can be followed to develop better measures of marketing (or any other) variables. The framework represents an attempt to unify the scattered bits of information in one place on how one goes about developing improved measures and how



one assesses the quality of the measures that have been advanced. He continues by saying that persons doing research of fundamental nature are well advised to execute the process suggested in Figure 6.2. and at least follow steps 1 through to 4, in order to produce *quality research*. For the purpose of this study, steps 1 through 4 will be followed in order to construct a model of South African management communication. It is not intended to generalise the results of the study, leaving this for future studies on the phenomenon, indicating an idiographic research approach.

Figure 6.2 Suggested procedure for developing better measures



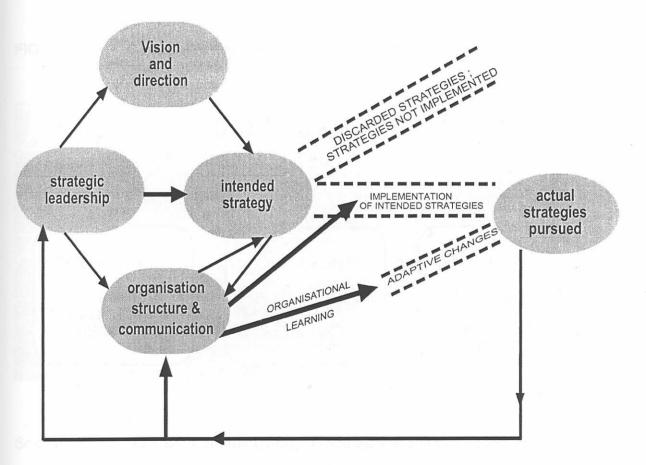
Source: Churchill (1979:66)



#### The conceptualisation of management communication

Thompson (1996:46) describes a strategic leader of any organisation as someone who has to **direct** the organisation, see to it that the intended strategies will be implemented through the **organisation structure** and enables employees throughout the organisation to be strategically aware and informed of the changes that are taking place (**communication**).

Figure 6.3 Strategic leadership and strategic change



Source:

Adapted from Thompson (1996:47)

Management communication is an interdisciplinary subject which integrates communication and management, an argument supported

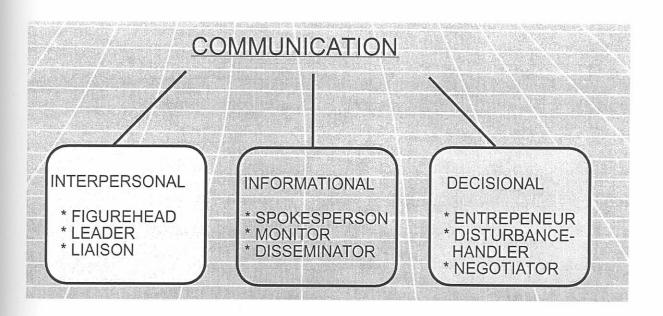


by Groenewald (1998:45).

It is not a functional department in an organisation, but includes all communication permeating the organisation.

Communication is to an organisation what blood circulation is to a person and it affects how people in an organisation relate to each other. Henry Minzberg describes the manager's job in terms of three categories of roles (interpersonal, informational, and decisional): Communication plays the vital part in each.

FIGURE 6.4 Communication and management roles



Source:

Adapted from Mintzberg in Hellriegel & Slocum (1996:481).

Groenewald (1998) describes management communication as a science which originated from the integration between the domains of communication and management and has a strong pragmatic



orientation. It is a construct of management which makes the manager more (or less) effective in his job, therefore impacting on the organisational goals, although this construct has not reached the "disciplined" (in the Foucaultian sense) stage.

Studying the construct management communication therefore will have a "spontaneous" emergence of factors, relating to both communication and management, using an idiographic approach. The exploration of the concepts relating to communication management will result in serendipitous findings (the comparative analysis between the various management styles) and thus lead to the discovery of new categories to be researched and generalised through nomothetic studies (refer Figure 6.2).

#### Organisational culture as context

The relevance of cultural diversity within organisations has to be highlighted in this study as it constitutes the main logic and context within which processes, structures and behaviours can be intelligibly described (also refer Chapter 1). The cultural variable is therefore a crucial element in this study.

Calls for increased attention to *diversity* issues in both research and practice have become a familiar refrain in the 1990s. In response, empirical research on diversity-related phenomena has touched on a number of issues, addressing such topics as organisational demography (Tsui, Egan & O'Reilly 1992), the dynamics of cross-gender (Raggins & McFarlin 1990) and cross-race developmental relationships (Thomas 1993; Scheu-Lottgen & Hernandez-Campoy 1998; George, Jones & Gonzalez 1998), the latter with an emphasis on non-permanent foreign



workers in visiting countries. The following topics have also received its fair share of attention: The impact of diversity training programme (Rosen & Rynes 1995), and the impact of diversity on work-team composition (Jackson 1992; Watson, Kumar & Michaelson 1993; Watson, Johnson, Kumar & Critelli 1998). A common message and theme throughout these studies is how to be successful in unfamiliar cultures, and how to *adapt* to these cultures. The development of models and theories is however underemphasised and necessary describing processes that underlie diversity management in a newly created democracy, such as South Africa, with an indigenous, local but multilingual diverse workforce, where the criteria for interaction are not guided by an embracing culture.

The anthropological, sociological and management literature define *culture* in many and diverse ways. A definition used by Hofstede (1984) is relevant to this study:

'Culture is the collective programming of the mind which distinguishes the members of one human group from one another. Culture, in this sense, includes systems of values, and values are among the building blocks of culture'.

This definition identifies culture as a set of values which are shared by a group. Cultural values shared by one group may be rejected by another. The values are learned by members of the group, and hence taught by other members. A culture is passed down from one generation to the next. It is therefore acquired and not innate.

This study is not concerned with material expressions of culture, for



example art and craft forms, clothing and fashion design, and food and cuisine. This study also excludes behaviour that can be explained in terms of individual psychological make-up, and does not view culture in static terms, but has to take into account the dynamic nature of culture, while not assuming the superiority of one culture over another.

This study is not an ethnographic study (a study primarily concerned with the rendering of theory of culture and cultural behaviour) but a study which aims to identify and describe those elements that contribute to the construction of management communication, which may be culturally-bound to a large extent. The two constructs are therefore not mutually exclusive.

The ideographic approach is emphasised here to a *lesser* extent as the universal aspects of the phenomena rather than the unique, are stressed. In this type of research the unique is forfeited in order to identify the generality of concepts or mental constructs, enabling the construction of a framework facilitating a comparative analysis which is structured along cultural groups.

# 6.2.2.2 The tactical decisions

Mouton and Marais (1996), Kothari (1997), and Emory and Cooper (1991) maintain that there is no simple classification system of research design. The many perspectives from which research designs can be viewed will influence the decision-making process. Mouton and Marais add that it is erroneous to assume that a single correct research methodology, appropriate for all situations, may be found. In most cases the researcher will only be able to control some of the threats to validity and nuisance variables. Rational decision making, therefore, means



that the researcher will frequently have to make concessions, and will find that it is impossible to control all the research factors that may pose a threat to the validity of the findings. It is possible, however, by paying attention to nuisance variables in a critical and systematic manner, to ensure that the ultimate research findings are likely to be more valid. This is the primary aim of the research design for this study.

In terms of a description of this study, it can be stated that it is a *formal*, *exploratory/descriptive*, *cross-sectional* and *ex post facto* study. This means that in this study a specific domain is being explained by eliciting responses from purposively identified participants, categorising on an agreement scale statements derived from an extended literature survey and subsequent analysis thereof.

This study is described an exploratory/descriptive study which may seem to cover two types of studies. Bless and Higson-Smith (1995) argue that the purpose of exploratory research is to gain insight into a situation, phenomenon, community or person. The need for such a study could arise out of lack of basic information on the area of interest. Most frequently, they argue, one must become more familiar with a situation in order to formulate a problem or develop a hypothesis. Thus, before being in the position to search for an explanation related to the characteristic, a certain amount of background information, namely a description of the *object of research*, must be gathered. In such a case, according to Bless and Higson-Smith, the type of research will be exploratory, which is a particular type of descriptive study.

The study is described as such because although the research problem has been crystallised and formulated, the independent variables have



to be identified from a broad base of international literature, and should, as part of the study's objective, lead to further research and exploration of the concept.

The decision to adopt an approach for this particular study, which lies on the idiographic/nomothetic continuum as explained in section 6.2.2.1, was substantiated in the discussion on the strategic decisions. This consideration, combined with the necessity of achieving a thorough picture of all the factors relating to the construction of the model, requires an approach to the selection of the data source that will elicit such information.

Research can be either qualitative or quantitative. *Qualitative research* refers to several methods of data collection, which include focus groups, field observation, in-depth interviews and case studies, to name a few. Although there are substantial differences among these techniques, they all involve what writers refer to as "getting closer to the data". Wimmer & Dominick (1994) describe qualitative techniques as increasing a researcher's depth of understanding of the phenomenon under investigation, and being flexible. Some disadvantages associated with this method is the sample sizes which are normally small, prohibiting the researcher to generalise the data.

Quantitative research requires that the variables under consideration be measured.

This form of research uses numbers to communicate variances. This type of research allows for greater precision in reporting results and permits the use of powerful methods of mathematical analysis.

For the purpose of this study, both qualitative and quantitative research



methods will be used, increasing the internal validity of the study, facilitating a better and more comprehensive understanding of the phenomenon. The term, *triangulation*, refers to the process of using both research methods in one study. This study does not imply in any way that the one method is superior to the other.

Using the categorisation (on a continuum) between the two methods as described by Mouton & Marais, the constructs relevant to this study can be depicted (indicated in bold typeface) as follows:

# CONCEPTS (Operational specificity)

QUALITATIVE	QUANTITATIVE
Surplus meaning: the concept can be interpreted in a number of ways	Unambiguous meaning: new words with a unique meaning could even be created
Sensitising concepts; meaningful sketches	Precisely identified terms
Intuitive experience for labeling	Can be operationalised in terms of measuring instruments
Reasonable degree of connotatively rich meaning	Strives towards complete denotative meaning

#### **HYPOTHESES**

QUALITATIVE	QUANTITATIVE
Frequently undeclared or merely stated	
in the form of a general research goal	research question
Emerging from the development of	Ought to be formulated beforehand
the investigation	
Can often not be rejected	Can be rejected



#### **OBSERVATION**

QUALITATIVE	QUANTITATIVE
Aprilleumaa hatteri 2	
'Subjectifying' and personally experienced	'Objectifying'
Researcher involved with	Researcher remains aloof
events/phenomena	
Spontaneous and fortuitious examples	Pre-planned observation
Occurs in a non-structured manner	Observations may even be scalable
Open to make it possible to record	Usually with inventory previously drawn
unexpected events	up; expected observations placed in
	categories in anticipation
Contextualising (context taken into account)	Context controlled as far as possible

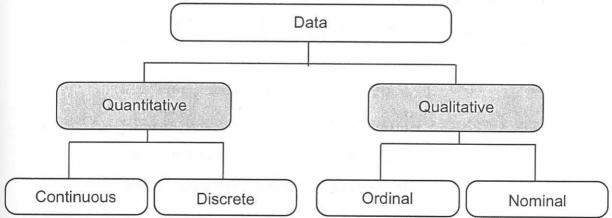
Source:

Adapted from Mouton & Marais (1996: 160-162)

#### Different kinds of data

Schematically, the different kinds of data can be represented as follows:

FIGURE 6.5 Schematic representation of the different kinds of data



Source:

Steyn, Smit, Du Toit & Strasheim (1999:6).

If any characteristic or property that is particular to a person or entity is measurable on a numerical scale, information on such a characteristic or property is called quantitative data. When observations of a particular characteristic can assume only fixed isolated values, data are known as discrete data, and when it can assume all possible values within a particular logical interval, such data are called continuous data.



Characteristics that cannot be reflected numerically because they are inherent in a person or entity, are described as qualitative information (sometimes referred to as categorical data, according to Steyn *et al.*) Sometimes, qualitative data can be represented in a quantitative manner. For example, employees' attitudes toward their work are quantified, when descriptions like 'poor', 'fair', 'good' or 'excellent' are rank ordered on a scale of say 1, 2, 3 and 4 respectively. In this example, there is a definitive order in the categories and one would refer to ordinal data, in contrast with, for example, information on the colour of a person's eyes, which will be classified as nominal data.

In the example used for ordinal data, the figures 1 to 4 have no physical meaning; they are only used to rank attitudes. Steyn *et al* explain the importance of distinguishing between different types of data when choosing appropriate statistical techniques, as the technique to be applied is often determined by the kind of data that are to be analysed.

For the purpose of this study, qualitative information will be described initially, and following the process of comparative analysis, will be represented in a quantitative manner, using ordinal data, which in turn will facilitate the construction of the model.

Both primary data (the empirical research process), and secondary data (the literature survey), will be used as data sources.

#### 6.2.3 THE OPERATIONAL DECISIONS

It has been stated that operational decisions are those decisions that relate to the choice of data source and this has been discussed in the previous section on the selection of the research design. In order to achieve a comprehensive description of the factors that contribute to the



construction of the model, a combination between a qualitative and quantitative research design (triangulation) has been selected as described in 6.2.2.

The two important operational decisions relate to what instrumentation to use and from whom the information should be obtained. With this purpose in mind, the *role of the literature survey* needs to be contextualised.

As no general consensus has been reached on a uniquely South African management communication model, the research domain of this study is pre-theoretical, and the literature survey therefore has to fulfil research needs pertaining to this study.

The literature survey needs to expose ('lay bare' as referred to by Smith 1998), by 'pointing out' not only past and present arguments concerning the research domain, but also inconsistencies and hiatuses regarding the theories that exist in literature. This exposition is not done for the 'participants' of this study, but for 'onlookers', to paraphrase Smith (1998:6). In addition, the literature survey has to be comprehensive to the point that it can facilitate a comparative analysis between the identified styles of management, which in turn will render the statements to be used in the empirical research study.

This study does not follow rhetorical argument, as its response is 'yes, I (we) will' or 'no, I (we) will not', but follows a dialectical conversation, which has a 'yes, I see it that way' or 'no, I do not see it that way' response to an argument. A dialectical conversation can simultaneously be entertaining both of two *contrary* received opinions, each of which might or might not hold self-evident truths, reaching a mutual *understanding* concerning the subjects matter under discussion.



It was decided to use key informants who share known interests and a common objective, that is to say, to attain a formal qualification as a manager in a South African organisation, thus qualifying as sharing a common interest in management skills and training. After considering a number of techniques, it was decided to investigate the phenomenon using a rating research method, facilitating statistical procedures.

These aspects will now be described.

### Instrumentation and selection of the sample

The conceptual focus, research questions and sampling criteria determine the type of instrumentation of a study. This study is formal in which the construction of a model has to be theoretically and empirically investigated, and the belief systems are obtained from knowledgeable management-sensitive panel of experts working in any South African organisation. In reviewing the various research techniques, it was decided that both the literature survey (secondary data) and Q-methodology (a qualitative technique which allows for quantitative data analysis) were most suitable for attaining the research objectives of this study.

Q-methodology permits subjects to construct models of their belief system. Q-methodology and Q-sorting is well-known in behavioural research and was originally developed by Stephenson in 1953 (Anastasi 1988; Stephenson 1967; Tate 1982; Kerlinger 1986; McKeown & Thomas 1988). Although the literature on Q-methodology contains more than 1 500 bibliographic entries (Brown 1986), and journals reporting research from Q-studies can be found across the social sciences spectrum, a description of the method and its techniques will be introduced, illuminating the method used in this study.



Fundamentally, Q entails a method for the scientific study of human subjectivity. Subjectivity, in this context, means nothing more than a person's communication of his or her point of view. As such, subjectivity is always anchored in *self-reference*, that is, the person's 'internal' frame of reference. This does not render it inaccessible to rigorous examination, nor does it serve to reify the self in any metaphysical or phenomenological sense. Self-referent subjectivity of this sort, is 'pure behaviour', an argument supported by Brown (1980:46). Q-methodology provides a systematic means to examine and reach understanding about experience and adhere to the methodological axiom that *subjectivity is always self-referent*.

According to Kerlinger (1986), the main strength of Q-methodology is its affinity to theory. What he means is that if a theory, or aspects of theory, can be expressed in categories and if items that express the categories can be produced, then Q can be a powerful approach to test theory. Factor analysis is the principal analytic procedure to accomplish this. Another strength of Q-methodology is its suitability for intensive study of the individual, for testing the effects of independent variables on complex variables, its heuristic quality and its usefulness in exploratory research. It is the latter two strengths that apply in this study.

Q-methodology would hold special promise for those seeking to make the study of human subjectivity more intelligible and rigorous, through the operational medium of a Q-sort. This is accomplished by a participant systematically rating a purposively selected set of statements, according to a specific condition of instruction, for the purpose of this study from 'most strongly agree with' to 'most strongly disagree with'. The nature of the statements is constrained only by the domain of subjectivity in which the researcher is interested (a domain Stephensen 1978b, has termed a 'communication concourse').



Data-analysis occurs with the intercorrelations of the N Q-sorts as variables and the factor analysis of the  $N \times N$  correlation matrix. Resulting factors represent points of view, and the association of each respondent with each point of view is indicated by the magnitude of his or her *loading* on that factor. The final step in data analysis involves the calculation of factor scores, whereby each statement is 'scored' for each factor. Factor scoring aids the task of understanding and interpreting the meanings of the factors in two ways: firstly, through the construction of a *factor array* (a composite Q-sort, one for each factor), and secondly, through the determination of statements whose ranks in the arrays are statistically different for any pair of given factors. Finally, interpretation of the factors is advanced in terms of consensual and divergent subjectivity, with attention given to the relevance of such patterns to the construction of the emerging model.

#### Methodological issues

What distinguishes Q-methodology from conventional measurement strategies, is the temporal locus of and inferential basis for an attribute, for example, tolerance. A concept such as tolerance is not assumed to have a priori meaning apart from and independently of the respondent's self-reference. As such, it is subject to a host of meanings, each of which may well be 'sensible' from the standpoint of the respondent's own logic.

The importance of *contextuality* as it relates to factor interpretation has to be highlighted. The principle of contextuality is tied to self-reference and also to Q-methodology's premises as a *method of impression*, as opposed to expression (Beebe-Center 1929, as quoted in McKeown and Thomas 1988), a distinction also relevant to the differences between Q- and R-method.



Under methods of expression, respondents are measured for traits, attitudes, and the like from an *external* point of view. The respondents' own point of view on the matter is of little theoretical interest and technical significance. With methods of *impression*, the personal, intra-individual significance of 'test stimuli' is of primary importance. When responding to them, the subject assigns scores in terms of some relevant conditions that has bearing, in one way or another, on his or her *internal* frame of reference.

Having no inherent meaning or status as facts, individual items in a Q-sample are assigned meaning and significance, first in Q-sorting by the respondent, and secondly in factor interpretation by the researcher.

There are two basic techniques for choosing items for the Q-sample. The first is based on *unstructured sampling*, in which statements presumed to be relevant to the topic at hand are chosen without undue effort made to ensure coverage of all possible sub-issues. The risk with unstructured samples is that some issue components will be under- or over-sampled and, consequently, that a bias of some kind will be incorporated inadvertently into the final Q-sample. *Structured samples* are composed more systematically and seek to avoid weaknesses found in the other. The customary practice is to apply the design principles of factorial experimentation whereby Q-sample statements are assigned to (experimental) conditions designated and defined by the researcher. This application can be deductive or inductive. A *deductive design* is based on a priori hypothetical or theoretical considerations. *Inductive designs* emerge from the patterns that are observed as statements are collected.

The dimensions that guided the final assignment and selection of



statements for the purpose of this study, were implied by the statements 'laid bare' by the comparative analysis between management styles as described in Chapter 5, suggesting that a structured sample and inductive design were used.

#### 6.3 SUMMARY

In this chapter the methodology used for the empirical research was explained. The position of the study on the continuum of the idiographic – nomomathic approach was described in the context of the research domain and the selection of the research, design was substantiated. The operational decisions inclusive of the instrumentation, selection of the sample and relevant methodological issues were explained and special care has been taken not to assume that the reader has prior knowledge of Q-methodology, and thus by explicating the method, ensuring a working knowledge of it.

Chapter 7 will report on the results of the Q-sort and the processing of the data from which certain conclusions will be drawn.