STATEMENTS AND STORIES

TOWARDS A NEW METHODOLOGY OF ATTITUDE RESEARCH

GERBEN WESTERHOF

THESIS PUBLISHERS

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INTRODUCTION

Some puzzling findings

In the early seventies researchers from the department of cultural psychology of the University of Nijmegen (The Netherlands) constructed a scale to measure political attitudes (the *POVO scale*[1]). The construction process was prototypical of attitude scale construction in psychology. First, the researchers investigated the major political ideologies of the twentieth century: anarchism, communism, radical and democratic socialism, pragmatism, liberalism, conservatism, and fascism. They argued that these eight political ideologies could be set out on a left-to-right scale, from anarchism on the extreme left to fascism on the extreme right (Hagendoorn et al., 1970). Initially, the researchers formulated 120 items which were believed to represent aspects of all eight ideologies. In the course of a series of empirical studies among university students they reduced the number of items. Items that did not load substantially on the first factor in a one-dimensional factor analysis were discarded (Pinxteren, 1972; Hopmans, 1976; Janssen and Voestermans, 1978). Whenever items had high factor loadings on the one factor they were considered to reflect accurately one of the political ideologies ranging from left to right. This procedure resulted in a political attitude scale of sixteen items: two items for each of the eight ideologies.

In 1974 and 1975 Janssen and Voestermans (1978) administered the scale to 1500 university students from various disciplines. As expected, all items again loaded substantially (loadings >.35) on the first factor in a principal component analysis, which reflected the left-right dimension. The sum of the factor scores on this scale showed a strong correlation with preferences for political parties (r=.69). Ten years later, Rooyackers and Westerhof (1987) obtained similar results in a sample of psychology students.

However, Janssen and Voestermans (1978) also administered the POVO scale to 522 respondents in a sample of the Dutch population at large. They simplified the phrasing of the items somewhat, but without changing the face validity of the scale. In contrast to the easily interpretable outcome of the factor analysis using the student sample, no successful factor analysis could be performed for the general Dutch sample. A left-right dimension was clearly lacking in the answers. Furthermore, the sum of the scale scores was not related to preferences for political parties (r=.10).

Two studies carried out in the eighties provided similar findings. Young people between fifteen and eighteen years of age filled out the POVO scale. The left-right dimension appeared again in a sample of respondents from 'higher' educational institutes (Hagendoorn and Janssen, 1983), whereas it was not found for respondents who attended 'lower' educational institutes (Raaymakers, Meeus and Vollebergh, 1986)[2].

Broad formulation of the research problem

Apparently, different respondents arrived at their answers to the POVO scale in very different ways. In attempting to understand why some respondents do give coherent answers while others do not, several intriguing questions come to mind.

Attitude scaling

In the first place, one might ask, what are the implications of these findings for attitude scaling? Are findings such as these specifically related to the particular attitude scale that was used here or are they related to some more basic problem inherent in attitude scaling as such? In order to try and formulate an answer to this question we have to understand the practice of attitude scaling. Social psychologists generally carry out their studies in the psychological laboratory, using (psychology) students as subjects (Jahoda, 1986; Sears, 1986). Although researchers have given some thought to the problems associated with this highly specific population (e.g. Hovland, 1959; Eagly and Chaiken, 1993), Danziger (1986) points out the real issue at stake. He asserts that "college students [were] used as the sources of data in investigations that claimed to be studying abstract psychological relationships which operated irrespective of social context" (p.58). The findings of the POVO scale indicate, however, that college students differ greatly from a general Dutch sample in how they arrived at answers to the items.

For this reason, the description of attitude scaling concentrates on the practice of survey researchers (part of whom are of course (social) psychologists), since they are the ones who administer attitude scales to broader populations than college students. In doing so, they ran up against a number of problems that were not encountered by social psychologists who confined themselves to studying college students. These problems appear to be the key to clearing up our main problem. Chapter 1, "Survey questionnaires", describes the history of survey research as well as current survey research practice, in order to outline the main assumptions, or the paradigm, on which current survey research practice rests. As will also become clear, survey research is closely linked to the psychological methodology of attitude scaling.

Psychological differences in attitude structures

Secondly, we need a psychological interpretation of what organizes the responses to attitude scales: what does it mean if people give coherent answers, and how do respondents arrive at such answers? In social psychology, the coherence and underlying structure of attitudes has been, and still is, one of the major research topics (Eagly and Chaiken, 1993). In the early sixties Philip Converse critically used these kinds of social psychological studies to assess the different ways in which respondents generate answers to survey questions. The first part of Chapter 2, "The Converse debate", describes his work. The second part of chapter 2 contains some highlights of the debate prompted by his critical studies. These include more recent social psychological studies on attitude structures as well as studies on the relationship between attitude structures and survey response.

Socio-cultural dynamics related to differences in attitude structures

Thirdly, if it is the case that some respondents do and others do not give organized answers, it may be asked who do and who do not. The studies discussed in chapter 2 attach great significance to the relationship between people's involvement in a domain and the attitude structure they develop about it. Furthermore, the findings from the POVO scale seem to imply that education plays a major role in whether people give answers that are organized along a left-right dimension. This question will be dealt with more thoroughly in Chapter 3, "The social significance of producing political opinions". This chapter will provide a description of the work of Pierre Bourdieu, which focuses especially on the social and cultural dynamics at play in the production of coherent views on politics. Bourdieu shows that the involvement in politics, and the concomitant consumption and participation show an uneven social distribution, which is related to educational level, among other factors.

The specificity of the political domain

Nearly all the studies discussed in the first three chapters deal with the political domain. Since each cultural domain has its own dynamics (Bourdieu, 1992), one might ask to what degree the evidence found on the political domain will also be found in other cultural domains. For example, it is not clear whether the specific ideological division of the political domain has any effects on the organization of attitudes and survey responses. One might also ask whether the relationship between interest in the political domain and socio-cultural position differs from that in other domains. A more detailed examination of the specificity of the political domain will be presented in Chapter 4, "Towards research hypotheses". This examination includes a description of another cultural domain which was selected for this study: the domain of health and illness. The basic ideological dimension of conflict in this domain is different from that in the political domain. It will be shown in chapter 4 that the medical domain is characterized by a conflict between orthodox, rational medicine on the one hand and alternative, non-rational medicine on the other. Furthermore, it will be argued that involvement in medicine shows a more even social distribution than involvement in politics.

Formulation and assessment of the research questions

It may be clear by now, that the conceptual tools discussed in these chapters have been derived from rather disparate disciplines and research traditions, ranging from the political science of public opinion, which is associated with survey research, through social psychological studies on attitude structures, to the French sociology of Pierre Bourdieu. Making use of different traditions has the advantage that some of the issues that are neglected in one tradition are thought about in the other and a combination will enable us to arrive at a more comprehensive view on the research problem.

Such a comprehensive view, to be developed in chapters 1 to 4, connects the research problem to the four issues described above: the practice of attitude scaling in survey

research, the psychological mechanisms involved in giving coherent survey responses, the social and cultural dynamics associated with giving coherent survey responses, and the specificity of the domain for which an attitude scale is developed. An extensive investigation of the topics mentioned above was carried out in the survey discussed in the present study. This investigation deals with two major questions:
- are differences in attitude structures found in both the political and the medical domain?
- if such differences in attitude structures are found, does their social distribution in the political domain differ from that in the medical domain?

The existing evidence discussed in chapters 1 to 4 enables us to envisage the hypothetical answers to these research questions. These hypotheses will be formulated at the end of chapter 4.

The present study, designed to answer these research questions, was carried out within the tradition of attitude scaling and survey research. The construction of attitude scales for both the political and the medical domain, to be presented in Chapter 5, "The design of the study and measurement procedures", follows the paradigm of survey research. However, the analyses of the data, which will be described in Chapter 6, "Results", differ in some respects from the analyses usually carried out in survey research, since the present study is intended to provide information about the basic assumptions of this paradigm, which usually go unexamined. The main object of the analyses in the present study is to provide insight in the different ways in which respondents arrive at answers on survey questions. Chapter 7, "Summary and conclusion", will critically examine the relationship between the findings and the research questions and hypotheses, and the broader problem of the assessment of attitudes.

The epilogue will present an outline of a theoretical perspective that is required if we are to understand the issue of whether and how people who give less coherent answers on the survey questions express their attitudes otherwise. Some possible methods of studying these kinds of attitudes will also be discussed. The epilogue closes with a general conclusion on attitude theory and attitude research. However, both the theoretical and the methodological considerations given in this last chapter remain only a first step towards a new methodology of attitude research for which the empirical study presented in this book will provide the rationale.

1 SURVEY QUESTIONNAIRES

Paul Sikkema (1989), a staff member of the Dutch Inter/View survey agency, estimated that in 1988 three million survey interviews were held in the Netherlands, on a population of 15 million inhabitants. His agency alone accomplished 450,000 survey interviews in that same year. These huge numbers illustrate the widespread use of, and faith in survey questionnaires for the collection of information on population characteristics, behavior, preferences, opinions and the like. As a cultural product, or a social technology, the survey questionnaire is *taken for granted* nowadays.

The acceptance of the survey questionnaire is the result of a historical process in this century. A rough sketch of the history of the survey will be given in the first section of this chapter. In this section which is based on a number of studies by other researchers[1], the institutionalization and the technological developments of the survey are described in relation to the socio-economic conditions and ideological legitimizations which paved the way for the development of the survey. In the course of this historical process a consensus was found with regard to survey methodology, which will also be described.

Within this consensus, a great deal of research has been carried out to further improve the quality of the survey. The second section deals with these attempts at improvement. This section gives a more detailed description of the survey and helps to further make explicit the specific form it should ideally take.

The description of the historically grown consensus on the survey and the presentation of the efforts to further improve its quality will also reveal the assumptions inherent in this social technology, or its *paradigm.* It was explained in the introduction that this is the main goal of this first chapter.

1.1 A short history of the survey

Conditions of the rise of the survey

In Van Ginneken's (1986) view, the genesis of the survey method is related to the social and economic developments in the beginning of the twentieth century. In his analysis, he concentrates on the United States, which can be seen as the cradle of present-day survey methodology. Van Ginneken notes the rise of a mass society, which differs radically from the traditional European societies in its social organization. Two developments are important. Firstly, the mass media (newspapers, weeklies, movies, radio) all developed rapidly in the first two decades of the century. Secondly, a national market came into being: large industrial firms were established, and all kinds of new commodities were produced, especially luxury goods like soft drinks, cigarettes, and cars. This national market in turn entailed the spread of intervention by means of advertising and public relations in order to establish a brand name and persuade the consumers to buy articles.

Other intervention strategies were also created in this period. After the introduction of universal suffrage, election campaigns developed quickly. During the First World War, propaganda became a matter of necessity.

The aim of each of these intervention practices was to influence opinions and behavior. Of course, the question arose as to whether they were successful. Furthermore, since manufacturers were no longer directly in contact with consumers, it became necessary to develop other strategies of obtaining information about the consumption habits and preferences of the public. The survey, as used in media research, marketing research, and policy research, was accepted as the most suitable means of fulfilling these needs (Van Ginneken, 1986).

Legitimization of the survey

If it were these socio-economic developments which led to the rise of the survey, its use was also legitimated on ideological grounds. The survey was said to be related to democratic principles (Ginneken, 1990; Champagne, 1990). Furthermore, although the early development of the survey method took place largely outside the universities, the survey soon became associated with science. The use of measurement metaphors like thermometer or barometer is an illustration of this association (Bourdieu, 1987b).[2]

Of course, successes in predicting the outcome of elections also paved the way for the acceptance of the opinion poll. Especially Gallup's success in forecasting the outcome of the 1936 presidential elections served this function (J. Converse, 1987).

Institutionalization

The first specialized survey agencies were established in the thirties. From the very beginning, these institutes sprang from various institutional environments, which still exist nowadays: government, business, mass media, universities, and independent agencies. In all these settings the use of the survey has expanded over the past 50 or 60 years[3].

The diversification of interests and uses of the survey was the main reason for institutional specialization. Whereas the independent agencies carry out surveys for all intents and purposes, the organizations in other settings have more precise goals. Surveys are used in the marketing of all kinds of commodities such as food or TV programs. In universities they are used in fundamental scientific research in political science, sociology, economy and psychology[4]. As a guide to government interventions, they are used to provide statistics on population characteristics and all kinds of social problems. In politics they are used to assess 'public opinion': the preferences of the people on different issues, the popularity of politicians and parties, and the forecasts of election results. The faith in survey questionnaires is very clearly illustrated by the fact that nowadays public opinion is generally defined in terms of the outcome of opinion surveys (Champagne, 1990; P.Converse, 1987).

Technological developments

As for the development of the data collection technology[5], Jean Converse (1987) identifies three ancestors of survey research in the United States. In the first place she mentions the so-called social surveys, which were carried out especially to provide information on the

living conditions of the poor. Although similar efforts were made by others before him, Jean Converse gives credit to Charles Booth (1902/1969) for having carried out the first comprehensive survey in an attempt to give a scientific answer to the question of who and how numerous the poor were in London. Booth collected brief case histories in great abundance, and by classifying and adding them up he converted them into quantitative summations which provided a comprehensive view of the London poor.

Next, in the beginning of this century, psychologists and sociologists became interested in the measurement of opinions, attitudes and similar subjective phenomena. This interest is related to the rise of the same intervention strategies that were associated with the development of the survey (Van Ginneken, 1986). The emergence of social psychology as a field of scientific study in the 1920s owes a great deal to the development of both the concept of attitude[6] and of attitude measurement, introduced by psychologists such as Thurstone and Floyd and Gordon Allport (McGuire, 1986; J. Converse, 1987). In sociology, attitude measurement also developed in the twenties, for example in the work of Bogardus on social distance. Attitude measurement techniques which had been developed in academic environments had found their way into survey methodology from the outset, but even more so after survey research "migrated to the universities" (J. Converse, 1987) in the forties and fifties (Van Ginneken, 1990).

Jean Converse (1987) mentions market research and opinion polling as the third and most direct line to present-day survey methodology. She sees Gallup, Roper, and Crossley as the most important promoters and innovators of the sample survey in the thirties. Quantitatively speaking, too, the private and business survey agencies have always outnumbered other institutions carrying out survey research.

The census survey of the population, official government statistics, and so-called 'straw votes' may be added to these three ancestors (Turner and Martin, 1984). National census surveys go back far beyond Booth's enterprise[7] and governmental statistics can be traced back to the seventeenth century, when quantitative studies were carried out on epidemics and on life expectancy, for example. In the twentieth century the United States Bureau of Census has played an important role in the development of sampling methods.

The 'straw vote', "an unofficial canvass of an electorate to determine the division of sentiment on public issues or on candidates for governmental office" (Turner and Martin, 1984, p.25) was more or less a competitor of the sample survey in the thirties. The most famous straw vote was carried out by the "Literary Digest" magazine, which asked its readers to give their opinions on issues such as prohibition, and about their preferences for political candidates. Whereas the millions of vote preferences collected by the "Literary Digest" failed to forecast the results of the 1936 presidential elections, Gallup needed only a few thousand respondents in a sample of the American public to arrive at a correct prediction. The sampling procedures of the survey proved superior and a fatal blow was dealt to the straw vote.

Between 1935 and 1950, consensus was reached on three important technical problems: the sampling procedures, the role of the interviewer, and the role of the respondent (Blondiaux, 1991).

The object of the *sampling procedures* is to create a "miniature society" (Blondiaux, 1991) which is an accurate reflection of society at large[8]. In 1936 Gallup used quota sampling, which leaves the ultimate selection of the respondent up to the interviewer. However, in 1948 the major political surveys failed to predict the outcome of the US presidential election. The committee that was installed to examine this failure attributed it to the use of quota sampling. Probability sampling, in which every member of a population has the same chance of being interviewed, became the method of choice.

Van Ginneken (1990) notes that the face-to-face interview soon predominated the administration of questionnaires; it was considered better than mailing questionnaires, since the latter generally resulted in lower response rates. This preference brought another problem to the fore: the *role of the interviewer.* As Blondiaux (1991) shows, the interviewer came to be defined as a kind of neutral machine recording answers, or a "living pencil". Selection, training and control of the interviewers have been questions of major concern to survey researchers ever since (Van Ginneken, 1990).

The third problem encountered was probably the most difficult: do the *respondents* actually know anything about the issues they are asked about and do they tell the truth? This problem was restated as a problem in the art of phrasing questions. It was expected that writing better questions could solve the problem (Blondiaux, 1991). Questions that use a minimal vocabulary and a simple formulation, as well as closed questions of the agree-disagree type[9], were seen as the type of 'better questions' that could solve the problem. Textbooks were written to provide rules for the formulation of good questions, for example "The Art of Asking Questions" (Payne, 1951).

The changes in question writing brought about by these attempts have been analyzed by Jean Converse and Howard Schuman (1984) and Tom Smith (1987). Examining the formulation of questions in public opinion research over the past 50 years, they note the widespread use of closed questions. The number of categories per closed question increased from a simple trichotomy (e.g. favour/oppose/don't know) to 5, 7 or 11 point scales, accompanied by an increase in the use of 'show cards'. The questions are more often asked in a balanced form ("do you favour or oppose..."), instead of the unbalanced version ("do you approve..."). Smith (1987, p.107) concludes that there is a shift away from the natural language used in the thirties, when surveys were "simple inquiries that were 'what d'ya know, what d'ya say' conversations". Nowadays a more specialized 'survey dialect' has settled in.

The problems involved in sampling, interviewer behavior, and question writing are accompanied by the formulation of standards on survey research, like the one by Dodd (1947), or, more recently, those provided by associations of survey researchers[10]. Scientific committees have discussed survey practices (e.g. Turner and Martin, 1984), and sound methodology is discussed at congresses and other scientific fora (e.g. the journal "Public Opinion Quarterly"). Of course, as Turner and Martin (1984) show, actual practice does not always meet these standards, and less so in journalistic than in academic publications.

1.2 Survey quality

The consensus on sampling, interviewer behavior and questionnaire design, which was achieved by 1950, has not changed much. This is not to say that the ideal goes unthreatened. Two threats are usually mentioned in treatises on survey quality: the representativity of the sample and the meaningfulness of the answers (e.g. Groves, 1987; Alwin, 1991). Many studies have been carried out to assess these threats and how they can be dealt with. The major problems mentioned in these studies will be presented below[11].

Representativity of the sample

As has been described above, the purpose of the sampling procedures in the survey method is to create a 'miniature society' that effectively reflects the society at large. Otherwise stated, a sample should be representative of the population from which it is drawn. The representativity of the sample is threatened by three non-observation errors: coverage error, sampling error, and nonresponse error (Groves, 1987).

The *coverage error* refers to the question of whether the list of population members that is used to draw a sample (the sampling frame) adequately enumerates all the members of the population. A telephone dictionary, for example, does not enumerate all the people living in a city: it can be argued that people who cannot be reached by telephone form a specific subset of the population under study (e.g. Tull and Albaum, 1977). Another problem arises from the fact that sometimes no reliable sampling frame exists, like in research on very specific groups (e.g. Vietnam veterans; Rothbart, Fine and Sudman, 1982). If sampling frames are incomplete or non-existent, the results are likely to differ from the actual population characteristics.

Sampling error results from the specific sampling design used. Differences in population estimates can for example be related to the use of probability sampling as opposed to quota sampling. As has been described above, probability sampling is generally preferred to quota sampling.

A *nonresponse* error can result if certain members of a sample cannot be interviewed. This is also referred to as unit nonresponse, so as to distinguish it from item nonresponse. Item nonresponse (which will be discussed in sections 2.2 and 3.2) refers to the fact that some respondents, who do cooperate in a survey, leave some questions unanswered. Unit nonresponse is a problem, since it is often not random. It is a remarkably stable finding, for example, that the higher-educated are overrepresented (Turner and Martin, 1984). Furthermore, the response rate for comparable studies declined between 1952 and 1979, especially in the large cities (Steeh, 1981), indicating that nonresponse has become a greater problem.

Whereas technical solutions have been found for the coverage and sampling errors, the nonresponse error is more difficult to resolve. It is dealt with in three ways.

Firstly, studies are carried out to find determinants of response rates which can be used to suggest better recruitment strategies. For example, older and more experienced interviewers who are allowed to conduct fewer interviews obtain higher response rates (Singer, Frankel and Glassman, 1983). The response rate is found to be higher in a face-to-

face survey than in a telephone survey (Groves, 1979). More people are willing to cooperate between 6 and 7 pm, in autumn and in spring (Vigderhous, 1981). Sending a letter in advance (Traugott, Groves and Lepkowski, 1987), and payment (Singer and Presser, 1989) also result in higher response rates.

Secondly, researchers have tried to find the characteristics of the persons who refused to cooperate. Methods used to analyze nonresponse include interviewer estimates of the characteristics of non-respondents, external population checks, and attempts to interview individuals who refused to cooperate (T. Smith, 1983). The results of these kinds of analyses are used to find better strategies to persuade people to cooperate in surveys.

Thirdly, these results are also used to estimate whether certain groups are likely to be under-represented. Weighted adjustments can be used for those groups (e.g. Bethlehem and Kersten, 1986). This strategy is found most often in population studies and economics.

Meaningfulness of the answers

Survey measurement is intended to measure some characteristics of respondents. However, a respondent's answers can be influenced by all kinds of variables. This means that the answer to a question can mean something other than what the researcher had in mind. The technical description of this problem builds on psychometrical studies, which were carried out primarily to analyze the measurement characteristics of psychological tests. Survey researchers developed methods of assessing the quality of survey answers in analogy to the psychometrical studies on psychological tests[12].

Psychometrists have conceived of the problems regarding the meaningfulness of the answers in terms of the reliability and validity of measurements. *Reliability* refers to the reproducibility of the measurement: if a respondent gives an answer once, he should give the same answer if he is asked the same or an equivalent question once again. Reliability coefficients are obtained via several methods: test-retest (identical questions are asked more than once in exactly the same form with some time interval), parallel forms (similar questions are asked in slightly different forms in one session), and internal consistency (the covariation in answers on items which are part of the same scale and which, accordingly, are meant to measure the same underlying phenomenon).

The use of a perfectly reliable measurement instrument is no guarantee for meaningful results. *Validity* refers to the question of whether the measurement really produces results which reflect the characteristic that one is interested in. The validity of answers can be checked by different methods (Ghiselli, Campbell, and Zedeck, 1981). Criterion-related validity refers to the degree in which a measure corresponds to, is related to, or predicts another variable called a criterion (e.g. the predictive value for voting behavior of opinions on political issues); construct validity refers to the degree of association between measurements of variables that should theoretically be associated; and content validity refers to the degree to which what is measured appropriately reflects the content of the variable that one is interested in, as examined by qualified judges (e. g. other scientists).

In *classical test theory*, psychometrists have formulated the relationship between a measurement and the variable of interest:

$$y = T + e \qquad (1.1)$$

in which y is the value of measurement, T is the '*true score*' of the variable measured, and e is the measurement error[13].

Reliability refers to the proportion of error in the measurement; validity refers to the question whether T is actually the 'true score' that one is interested in. Classical test theory rests on the assumption that there is indeed a 'true score' that becomes manifest if the right questions are posed. In chapter 2 this assumption will prove to be central to the research problem of this dissertation.

In survey research the 'true score' that one is interested in may be, for example, a social characteristic of the respondents (such as their educational level), an aspect of actual behavior (such as how they voted in the last election), or an attitude (such as party preference). An overview of the many sources of errors said to threaten the reliable and valid measurement of the 'true score' clearly shows what survey researchers understand to be the 'true score'.

Measurement error is divided into a random component and a systematic component. The latter is also referred to as *bias* (Turner and Martin, 1984) or *response effects*[14] (Alwin, 1991)[15]. Sudman and Bradburn (1974) distinguished between three kinds of response effects, including characteristics of the answering task, the interviewer, and the respondents. Many studies have been carried out to examine the effects of these characteristics on the answers given in survey questionnaires[16]. Table 1.1 (page 12) lists some of the characteristics which were found to be associated with response effects.

In spite of attempts at synthesizing, these studies still present a major problem in that it is extremely difficult to generalize across findings. Whenever a response effect occurs on a question on one topic, it does not necessarily occur on a question on another topic. Very complex interaction between characteristics may occur. This leads Mishler (1986, p.15) to draw the rather ironic conclusion: "some variables and perhaps all of them, have some effects on some, and perhaps all, types of response under some conditions".

Although the response effects are difficult to predict, the studies described above all have the same goal: the improvement of the quality of answers obtained by survey questionnaires via a reduction of response effects. The studies have resulted in specific guidelines to avoid response effects, such as those presented in table 1.2 (page 13).

These studies on the quality of survey answers clearly show which characteristics the survey researchers are interested in: the 'personal' or 'private' characteristics as they 'really' are, i.e. not distorted by social variables. The 'true score' is the behavior, attitude, etc. which is not influenced by its measurement.

Table 1.1 Survey characteristics related to response effects

task characteristics
1. mode of administration:
   a. self-administered questionnaires
      - mailing the questionnaire to respondents or using a computer
   b. questionnaires conducted by interviewers
      - face-to-face or by telephone
2. questionnaire
   a. instruction
      - explanation of legitimate behavior and responses
      - providing some details on the content and reasons of the study
      - stressing anonymity
   b. question content and formulation
      - question content (arousal of anxiety; 'sensitive' topics; salience of the topics)
      - question difficulty (readability; length; abstractness; social distance of the object asked about)
      - question constraint (filter question ("no opinion"); middle alternative)
      - response scales (vague quantifiers ("sometimes", "often"); range of quantifiers)
      - question specificity (balanced or unbalanced; counter arguments; specific wording (e.g. forbid vs. not allow); order of the response alternatives)
   c. question context (specific question before general one)

interviewer characteristics
1. role-independent (sex, age, race, social class)
2. role-dependent (socio-emotional vs. formal style of interviewing; deviating from the questionnaire)

respondent characteristics
1. role-independent, e.g.sex, age, education
2. role-dependent (acquiescence (yea-saying), susceptibility to social desirability)

note: the categorization of questionnaire characteristics is a slightly modified version of a categorization by Billiet (1989), which builds on the cognitive processes that are assumed to cause the response effects.

1.3 Conclusion

This chapter described the socio-economic conditions and the legitimization on the basis of democratic and scientific principles which paved the way for the development of the survey. In the course of the subsequent technological developments, the survey was shaped into its current, well-known, form. As an instrument of social technology, the survey has become taken for granted, rooted in major social institutions such as government, business, the mass media, and the university.

Although surveys differ in form according to the domain in which they are applied, a consensus has been established on survey quality, which rests on two assumptions:

Firstly, the sample should adequately represent the population at large. Therefore, the sampling frame should be adequate, and the nonresponse rate should be minimized. In general, probability sampling is seen as the best sampling method. If necessary, adjustment strategies can be used.

Table 1.2 Rules for the reduction of response effects

Dijkstra and Van der Zouwen (1982):	J. Converse and H. Schuman (1987):
1. Formulate the question very clearly and with high readability	1. the enduring counsel for simplicity - use simple language - use common concepts - use manageable tasks - use widespread information
2. Avoid (long) introductions to the question	2. specific questions are better than general ones
3. Use words that are as neutral, or rather, non-evaluative as possible	3. offer a no opinion option
4. Assure the respondents that their responses will be treated anonymously	4. omit the middle alternative and measure intensity
5. Inform the respondents about the topic of the interview and instruct them with respect to proper respondent behavior	5. use forced-choice questions, not agree-disagree statements
6. Carefully select interviewers with respect to their competence	6. relating to wording effects: - create split sample comparisons - use open follow-ups to closed questions - use random probes - ask multiple questions on a topic
7. Instruct the interviewers precisely about what is expected of them during the interview	
8. Use an open formulation instead of a closed one	
9. Add some encouraging but redundant words to the question	
10. Locate the question at a point not too early in the questionnaire	
11. Formulate the question in a directive way	

note: Dijkstra and Van der Zouwen (1982) formulated these rules on the basis of reviews of research on response effects, the last four rules apply to questions on 'sensitive' topics J Converse and Schuman (1987) have written their guidelines for "handcrafting the standardized questionnaire" from the results obtained in the experiments by Schuman and Presser (1981)

Secondly, the answers given by the respondents should adequately reflect the particular characteristic of the respondents that the researcher is interested in. In technical terms, the answers should reflect the 'true score' on the characteristic under study. If one is to obtain 'true scores', the effect of response effects or biases should be minimized. Questions should be easy to interpret for all respondents. On these conditions, the 'true' personal, private, value can be measured.

Two problems emerge from this second assumption. Firstly, the attempts to minimize response effects have resulted in a specific survey dialect, which differs from everyday language. Secondly, classical test theory, which was also applied to the quality of measurement in survey research, assumes that there actually is a 'true' value to be measured. However, as Roskam (1983, p.3) observes: "If the questions [in survey questionnaires] concern matters which the respondent knows about or already has an opinion about, one can assume that the question only makes the answer manifest to the researcher. The question itself does not interfere with the behavior, knowledge or attitudes of the subject. In many cases, however, questions are asked on matters about which the respondent does not have a firm or distinct judgment. In such a case, the question becomes more like a stimulus to form an opinion or judgment rather than a means of identifying already existing opinions or judgments."

Consequently, one might ask whether there actually is an already existing personal opinion or judgment, i.e. a 'true score' to be measured. As was explained in the introduction, the findings on the POVO scale also gave rise to this same question. Of course, the issue has been raised ever since the beginning of survey measurement (Blondiaux, 1991). Survey researchers have tried to cope with it by providing "no opinion" answers to respondents, and by phrasing their questions as simple as possible. Whether these solutions are sufficient will be the subject of the next chapter.

2 THE CONVERSE DEBATE

2.1 The original claim: attitudes and nonattitudes

When Philip Converse used a survey questionnaire to ask his respondents questions about political issues he was struck by two facts. "One was that very many respondents could not understand that a battery of pure opinion items had no objective 'right-wrong' scoring, or that "don't know" responses were not a confession of the most abject ignorance, to be avoided at all cost. The other was the frequency with which respondents chose a response alternative dutifully but accompanied the choice with side cues (shoulder-shrugging, eye-rolling, giggles, and even sotto voce comments) indicating that they were very much out of their element and would pick any alternative haphazardly by way of helping me out." (1974, p.650).

These observations led Converse to the idea that not all respondents had an opinion on the questions he asked. While some of them used the option of answering "don't know", quite a lot of them felt obliged to give "agree" or "disagree" answers. Apparently, these answers do not reflect an attitude that already existed before the questions were asked. Converse therefore called them *nonattitudes*, which he describes as "capricious constructions", "meaningless opinions that vary randomly", "no belief at all", "hastily fabricated affective judgments", "very *ad hoc* feelings", and "haphazardly chosen alternatives".

To account for his observations and to empirically assess the differences between attitudes and nonattitudes, Converse developed a theory on the nature of belief systems[1]. His theory is based on psychological theories about attitudes[2] and on sociological theories about (American) political ideology. From this interdisciplinary point of view[3], Converse (1964a, p.207) defines a *belief system* as "a configuration of ideas and attitudes in which the elements are bound together by some form of constraint". Converse uses the term *ideology*[4] as a synonym of a belief system.

Converse (1964a) describes four of the many different properties by which belief systems are characterized. Firstly, the number of elements in a belief system, or its *range*, can differ. Converse concentrates on political belief systems with relatively wide ranges. Second, the elements in a belief system can differ in *content* "from the remote, generic, and abstract to the increasingly simple, concrete, or 'close to home'. Where political objects are concerned, this progression tends to be from abstract, 'ideological' principles to the more obviously recognizable social groupings or charismatic leaders and finally to such objects of immediate experience as family, job, and immediate associates" (p.213). Third, as may be clear from the definition, belief systems also differ in the degree of *constraint* between the elements. The fourth property of belief systems which Converse found important is the *centrality*. Converse's description and assessment of the role of constraint and centrality will be discussed below.

Constraint

Constraint is used by Converse (1964a, p.256) as a synonym of 'interrelatedness' and 'interdependence', referring to how different belief elements go together. Converse, a social psychologist himself, gives a description of constraint which ties in with the prevailing social psychological theories of the fifties and sixties, characterized by an emphasis on attitude consistency and attitude change (McGuire, 1986). Theories on attitude consistency analyze the relationships between belief elements.

McGuire (1960) found that *logical* relationships can occur, but Converse argues that this does not happen too often in political belief systems. An example of logical relationships between political beliefs are those between beliefs about government income, government expenditure, and budget balance. In political belief systems *psychological* relations predominate more. In the literature, disparate concepts are used to analyze psychological relations between attitudes: balance, congruence, affective-cognitive consistency, and cognitive dissonance[5]. Although emphasizing different aspects of psychological constraint, they all explain how beliefs which are not in a strictly logical sense related can be seen as belonging together. Furthermore, it is commonly assumed that people have a dislike for inconsistencies between belief elements. If, for some reason or other, they experience inconsistency, they will change their attitudes in order to resolve the inconsistency. Besides its function in attitude change, constraint is said to serve the psychological functions of economizing belief systems and of reducing uncertainty.

Citing contemporary studies on attitude consistency, Converse asserts that psychological constraint is often based on a few crowning postures, which serve to glue together a certain range of more specific attitudes. In the political domain, the liberal-conservative yardstick is often found to be such a central posture (e.g. Lipset, 1963).

However, as Converse (1964a, p.209) argues, "the sources of constraint are much less logical than they are psychological - and less psychological than social". In describing social sources of constraint, Converse elaborates especially the social processes of the creation and diffusion of belief systems[6]. Belief systems are shaped into 'apparently logical wholes' in only a small part of a population, an *elite*, from where they are diffused among the mass public. With regard to different issues, or clusters of issues, different elites may exist. The transmission of these 'packages of ideas' relies on two classes of information. Firstly, straightforward information about which ideas go together, and secondly, the "contextual knowledge" (Downs, 1957) which specifies why ideas belong together. The first is far more easy to transmit than the second.

The political elite has the tightest grip on political belief systems, since they use them every day. In the mass public, on the other hand, Converse distinguishes different strata: a small group has contextual knowledge and is aware of the reasons why ideas belong together; a larger stratum is only aware of which ideas go together; and large parts of a mass public may even be completely unaware of the co-occurrence of idea elements.

Use and recognition of an ideological yardstick

In an empirical study Converse (Campbell et al., 1960; Converse, 1964a) assessed whether respondents use and recognize yardsticks, which may serve as standards to unite belief elements. In an analysis of the respondents' evaluations of the current political scene, Converse distinguished five *levels of sophistication*. Only a small proportion of the sample ($2^1/_2$%) correctly applied an abstract, ideological principle, such as the liberal-conservative standard. Others (9%) used these kinds of principles in a more superficial way, and not always correctly. Most respondents described politics in terms of group interests (e.g. Negroes, big business, rich people, labour or working man; 42%) or in terms of the nature of the times (e.g. states of peace, or economic disaster associated with a certain party; 24%). The remainder ($22^1/_2$%) did not employ any politically significant terms. Recognition of the labels 'liberal' and 'conservative'[7] was somewhat more widespread than active use, but the two are highly correlated. Respondents who are more educated and more politically active were found to be more aware of the meaning of ideological distinctions.

Constraint between belief elements

One might argue, however, that less educated people have difficulties in articulating the abstract principles which organize their beliefs. Specific beliefs might be very well organized, after all, on a more concrete level. To assess whether this was true, Converse measured constraint as the intercorrelation between the answers on specific survey items. The assortment of issues that people were asked questions about is "a purposive sampling of the more salient political controversies at the time of study, covering both domestic and foreign policy" (Converse, 1964a, p. 229). Converse (1964a) compared a political elite (candidates for the United States Congress) with a sample of the United States electorate. The correlations, which were calculated *only for those respondents who claimed to have an opinion on the issue*, were much higher for the elite than for the mass public[8]. Converse concluded, therefore, that the differences in the use and recognition of ideological labels are mirrored by the differences in constraint between people's views on political issues.

Converse argues that the lack of constraint observed especially among the lower educated is not related to limited cognitive abilities, since individuals with little education who are highly involved in politics can arrive at constrained beliefs and will actually use and recognize abstract ideological labels.

Furthermore, Converse does not suggest that lower-educated or less interested people do not have any beliefs about politics at all. Their beliefs are only less often organized according to abstract ideological principles than the beliefs of higher-educated and more interested people. Without a thorough grasp of these principles it is more difficult for them to recognize the relations between specific policy items. Whenever items deal with issues that can also be connected by applying other standards, like items on race, respondents can give constrained answers. Indeed, Converse (1964a) found that the correlation between two items dealing with race were more constrained in the mass public

than the items on domestic and foreign affairs, and they were even more constrained than the two items on race in the political elite.

Centrality

In addition to the level of constraint, Converse assessed the *centrality* of political belief systems. The centrality dimension can be conceptualized psychologically, either in a motivational or a cognitive sense. An example of the former approach is the functional relationship between attitudes and underlying needs, such as 'ego-involvement' (Katz, 1960). Although both will certainly be related, Converse is more interested in cognitive centrality (citing M. Rosenberg (1960b) for example), since it can be measured more easily than motivational centrality. Cognitive centrality is defined by Converse (1970, p.182) as the proportion of 'mental time', or attention, paid to an attitude object over substantial periods of time. In social terms, people for whom an attitude object is central form an *issue public*, i.e. the public that shows great interest in a specific issue. This is also the public which will recognize the belief elements that are diffused from the top layers of society.

Converse describes some concomitants of cognitive centrality. Heightened attention increase the chances that people store information. In the following, the level of informedness will be referred to as *knowledge*. Heightened attention also increases the number and variety of associative bonds between attitudes and will therefore be related to higher degrees of *constraint* (Converse, 1970). Converse (1970) holds that the centrality dimension is highly functional in processes of attitude change: more central attitudes are generally more resistant to change. As a result, they will show greater *stability* in the course of time (Converse, 1964a).

On the one extreme of the centrality continuum, there is an attitude that is highly central. This kind of attitude is based on heightened attention. It will be related to other information elements and to other attitudes and it will be stable. On the other extreme we find that no attitude exists at all. Converse also refers to this pole as a nonattitude.

The centrality dimension is independent of the positive-negative continuum, which indicates the direction of an evaluation. For example, a person may express a positive or negative evaluation which is not based on a great deal of knowledge about the evaluated object (Converse, 1975). Converse (1970) claims that the centrality should always be measured as a core property of attitudes. In psychological attitude research, however, the dimension of centrality has received "only moderate lip service and remarkably slight experimental attention" (1970, p.181).

The empirical assessment of centrality

Converse empirically assessed three concomitants of centrality: attitude constraint, knowledge and attitude stability. His analyses of attitude *constraint* were described above. Converse asserts that *knowledge* is the most easily measured concomitant of centrality. The measurement of knowledge "is likely to be far easier and reliable than the measurement of the attitude itself" (1970, p.183). Although much is known about the often low levels of

informedness about politics in the mass public, the underlying knowledge base of the opinions themselves is seldom explored (Converse, 1975). As an example, Converse mentions a survey, which asked people to give their opinions on the position which the US government should take with regard to the construction of the Berlin wall. Almost half the respondents proved unaware of the fact that Berlin was encircled by large numbers of hostile military troops. As Converse explains (1975), this kind of information is highly useful in the interpretation of survey responses.

Converse assessed the *stability* of beliefs by measuring the test-retest reliabilities of the same items that he had used in the assessment of constraint. In a panel study, the same respondents were asked identical items in 1956, 1958, and 1960. For those respondents who said they had an opinion on the items, only one question was rather reliable over a two-year period (tau-beta over .70): the question on party identification. For specific policy issues the test-retest reliabilities were much lower (all below .50), depending on the content of the item. Converse (1964a; Converse and Markus, 1979) found that stability is greater for items on moral issues than for items on domestic or foreign issues. Items on the civil rights of race groups are in between. The item "the government should leave things like electric power and housing for private businessmen to handle", which most adequately corresponds to the liberal-conservative yardstick, showed the least stability in time (below .30).

Apart from constraint, knowledge and stability, Converse (1964a) used "no opinion" answers as a measure of cognitive centrality. He took these answers for self-confessed nonattitudes. Converse (1970) also asserts that low centrality might be related to test fatigue and response set. If respondents are asked to repeatedly express opinions on items about which they hardly have any opinion, test fatigue and response set may occur. However, he does not provide any empirical proof to substantiate this argument.

The black-and-white model

Converse showed that constraint and stability are rather low in the mass public. These findings indicate that a lot of the answers that are given do not reflect any attitude that already existed prior to measurement, as Converse had expected on the basis of his interviewing experience. On the basis of the analyses of constraint and stability, however, he could not distinguish between attitudinal and nonattitudinal answers. In order to achieve this, Converse used the panel study in which the same respondents answered questions on political issues in 1956, 1958, and 1960.

If respondents gave the same answer on an identical question in 1956 and 1958, Converse assumed they really had attitudes; if respondents gave different answers on each occasion, he assumed they chose an answer at random, which implied a nonattitude. The correlation between the answers in 1958 and 1960 should be close to 1.0 for the first group, whereas this correlation should be close to 0.0 for the group giving random responses. This is called the *black and white model*. The evidence provided by Converse fits this model rather well, especially for the 'power and housing' item mentioned above[9]. For the items which fitted less well into the black-and-white model, Converse assumed that

there might be a 'third force' of opinion holders who do give meaningful answers, but who have changed from one real attitude to another real attitude.

Conclusion

Some clear-cut conclusions arise from Converse's theory and findings about belief systems. Belief systems containing various idea and attitude elements vary on different aspects. Converse described four aspects: the range of the belief system, the characteristics of its elements, the constraint among its elements, and its centrality. In fact, these may be reduced to three aspects, since constraint is a concomitant of centrality. As will be outlined below, the finding that belief systems differ on these aspects has consequences for the interpretation of survey response, as well as for the interpretation of political phenomena.

The interpretation of survey response

Respondents who have different belief systems arrive at answers on attitude questions in different ways. On the one end of the axis there are respondents who do not have an attitude (a nonattitude) about the issue they are asked questions about. They may choose a "no opinion" answer, but many of them appear to fabricate agree/disagree answers haphazardly on the spot. There are even respondents who express opinions on groups that do not exist (Hartley (1946), cited by Converse (1970)). On the other end there are respondents who give answers which reflect pre-existing central attitudes. If respondents have attitudes prior to their measurement, this is indicated by the use, or at least recognition, of yardsticks which can serve as standards to integrate a belief system, as well as by higher levels of knowledge, constraint and stability.

Constraint and stability were found to exist in degrees, varying across items. Items on racial issues were interrelated more strongly in the mass public than items on domestic and foreign policies. Similar differences in degree were found on the stability coefficients. Furthermore, the stability coefficients were higher for moral issues and higher still for party preferences. These findings can be generalized as follows: an item can be meaningfully interpreted if respondents can apply a standard to it; two items can only be seen as interrelated if the same standard can be applied to both. Consequently, the level of centrality and the level of constraint depend, firstly, on the number of yardsticks that can be used as standards to arrive at a meaningful interpretation of an item (or, as the case may be, of the relationship between two items), and secondly, on the proportion of people in the sample who use that yardstick. In other words, the level of centrality and constraint depend on the proportion of the people in the sample who form an 'issue public'. Converse calculates that the issue public is less than 50% of the total public for each of the items he used, and even less than 20% for the 'power and housing' item.

It follows that respondents who are part of an issue public arrive at meaningful answers, even if they do so in different ways, using different standards. It can be said that they actually have a 'true value', which can be made manifest simply by asking a question. Their answers will be stable and constrained. Since stability is a coefficient of test-retest reliability and since intercorrelations are coefficients of parallel-test reliability, it can be

concluded that their answers are reliable. The other respondents do not arrive at meaningful answers: they do not have an attitude with regard to the issue at stake. For them there is no subjective state to be measured or, otherwise stated, there is no 'true value'. Their answers will be rather unstable and unconstrained, i.e. unreliable. *Therefore, the assumption of classical test theory that there is a true value to be measured may not be true in attitude research.*

The interpretation of political phenomena

The differences in belief systems described above also have consequences for the interpretation of political processes and public opinion (Converse, 1964a). The findings show that people in the electorate make sense of politics in a variety of ways. Only a tiny minority share the interpretations of the political elite. Nevertheless, political commentators and politicians often make use of the terms that are current among the elite to explain processes in the mass. The fact that, for example, a Liberal president (Truman) was replaced by a Conservative one (Eisenhower), and that a greater number of candidates from the Republican party were elected to the American Congress, which happened to occur in the early fifties, are often interpreted as a swing to conservatism. But, as Converse demonstrated, the term 'conservatism' means little or nothing to large parts of the electorate and is therefore not accurate. In Converse's (1964a) view, these erroneous interpretations can be attributed to the fact that commentators and politicians tend to meet only a highly specific sample of the electorate, which consists of people who are more attentive to politics, and who are more familiar with the belief systems of the elite than the general electorate.

Public opinion, which is equalled to the outcome of opinion polls nowadays (see Chapter 1), is also often interpreted in the terms used by the elite. Public opinion is often reduced to highly simplified statements of the form "a certain percentage is for (or against) this or that policy". Such interpretations of public opinion obscure the highly fragmented picture, both much more narrow and more diverse, which Converse discovered behind the answers collected in a survey.

2.2 The debate

Converse's studies have given rise to much debate[10]. For each year between 1970 and 1990, about 30 citations of his article on "The Nature of Belief Bystems in the Mass Public" (1964a) can be found in the "Social Sciences Citation Index". More than half of these are found in political science journals; about one fifth in sociological journals. Until 1985 only some scarce citations were found in psychological journals. Since 1986 psychologists have paid more attention to Converse's work: about 10 citations were found each year in (social) psychological journals[11].

Three aspects of the debate will be described below: psychological theories on attitude structures, empirical assessment of attitudes and nonattitudes in surveys, and some false assumptions on measurement error.

Psychological theories on attitude structures

Psychological theories on attitude structures focus on four aspects of attitude structure: the use of standards of organization other than the liberal-conservative yardstick, the cognitive integration of attitudes, attitudes as representational associative networks in memory, and attitude centrality. These will be described below.

Standards of organization

Some researchers criticize Converse for focusing too much on the use of the liberal-conservative yardstick as a means of organizing political attitudes. They argued that other standards can also be used to organize attitudes, especially values and social groups.

Values as standards

Lane (1962, 1973), one of the first critics of Converse, argued along this line. Lane asserted that the liberal-conservative yardstick is not always sufficient as a norm to deduce a preference on a political issue. In most cases, additional assumptions have to be made to arrive at a political belief. Furthermore, individuals may not use the liberal-conservative yardstick at all. There are other standards that can be used effectively in political reasoning. Consequently, Lane concluded that political beliefs are not always organized in accordance with the liberal-conservative ideology. The organization may be highly idiosyncratic. In his interviews with fourteen 'working class' men in Eastport, Lane indeed found that they held rather elaborate views on politics, centering on *values* such as freedom or equality.

However, there are two reasons why Lane's study does not contradict Converse's theory. In the first place, Converse acknowledged the possibility that belief constraint can be idiosyncratic. Converse (1964a) explained that this might reduce the intercorrelations between issues, but should not affect the stability of answers. Since the stability of the answers was rather low, Converse concluded that not many respondents arrived at answers in idiosyncratic ways.

In the second place, once Lane (1962) started to talk about specific political issues with his interviewees, he found that not all of them grasped their significance. Lane observed two different ways of reasoning. Some of the interviewees grasped the context of the issue they were talking about. Lane (1962) termed this "*contextualizing*": "temporally to know what went before and what is likely to follow, spatially to know the terrain, in human terms to see the play of the many motives involved" (p.350). Other interviewees saw the issues as isolated from the surrounding context. Lane named this "*morselizing*". It may be clear that those individuals who morselize cannot arrive at coherent answers in a survey. Hence, Lane and Converse analyze similar differences in political reasoning, but they do so in different words.

Other researchers[12] also paid attention to the role of values or core beliefs in the organization of belief systems. While Lane used open interviews, more recent research was carried out with survey methods. These surveys used scales which were meant to measure a specific value, such as individualism, equalitarianism, free enterprise or democracy.

Since the answers on these scales are often found to be related to the answers on questions about policy issues, it is concluded that these values function as organizing standards.[13]

Social groups as standards

In a number of studies an attempt was made to assess whether, besides core beliefs and values, *social groups* are used as standards to integrate beliefs[14]. Political parties and their positions, as they are perceived by respondents, can be used to organize beliefs about all kinds of political issues. Furthermore, specific subsets of policy issues dealing with social groups like race and social class can be constrained by beliefs about these groups.

In sum, these studies point out the possibility that structuring principles may be at work other than the liberal-conservative principle. Converse acknowledged this possibility[15]. Therefore, these studies should not be seen as contradicting Converse's theory. They elaborate on other kinds of political reasoning which were also mentioned by Converse.

Cognitive complexity

The studies described in the previous section addressed the question of which standards can be used to constrain beliefs. Lane (1973) also mentioned that sometimes more than one yardstick is used as a norm to deduce a preference on a political issue. The combination of different standards is defined psychologically as cognitive complexity[16].

Cognitive complexity primarily denotes the number of standards which people take into account when a preference is formed. This is also referred to as *differentiation* (Tetlock, 1989). An individual who has a highly differentiated view of politics recognizes that different policies can have many, sometimes conflicting, effects, which cannot readily be classified on a single standard of judgement.

Individuals may not only differ in the number of standards which they attach to an attitude object, but also in the way they combine these standards to form an attitude. Some individuals may see these different standards as unrelated or isolated properties. Other individuals may see some relations between standards. The degree to which standards are seen as connected is referred to as *integration* (Tetlock, 1989). Differentiation is thus a prerequisite for integration.

In the integration of different standards the appraisal of these standards also plays a role. The evaluations of different standards may be independent, consistent, or in conflict. Consistent evaluations of different standards of an attitude object are found to be related to more extreme judgments about the object, while independent and conflicting standards are found to be related to more moderate judgments (Eagly & Chaiken, 1993).

Differences in cognitive complexity are often equated with the differences in constraint described by Converse (Lusk & Judd, 1988; Milburn, 1991). However, the intercorrelations between answers, which Converse used to measure constraint, are only a minimal measure of cognitive complexity. Once people employ one or more standards to form a judgement, they will give constrained answers on the survey questions that are related to the employed standard(s). Consequently, both respondents reasoning from rather low levels of complexity and respondents reasoning from higher levels of complexity can arrive at constrained answers. Only respondents with a highly undifferentiated view of

politics (like the 'morselizers' described by Lane (1962)) will give unconstrained answers in surveys.

Attitude structures as associative networks in memory

Since the mid-eighties, there has been a noticeable upswing of interest in the concept of attitude[17]. McGuire (1986) sees this increasing interest as a third flourishing of attitude research. In the twenties and thirties, research dealt mainly with attitude measurement (see also section 1.1). In the fifties and sixties, studies concentrated on attitude consistency and change (see also section 2.1). In the contemporary third period the focus is on *attitude structure*[18]. In this period attitudes have become conceptualized as structured representations in long-term memory[19]. This concept draws on the research on social cognition (Fiske and Taylor, 1991) which preceded the current flourishing of attitude research, as well as on cognitive psychological research in general. Consequently, researchers emphasize cognitive information processing dynamics, which are associated with representational attitude-structures[20].

In a series of contributions from this perspective, attitudes as structured representations are more specifically equated with associative networks in memory[21]. The theory is derived from previous work by J. Anderson and Bower (1973) on human associative memory. These researchers were interested in the storage of semantic information in memory. Semantic information was assumed to exist in nodes, associated by links.

Bower (1981) also studied the representation of affect and emotion, but Fazio (1986, 1989) explicitly linked the theory of human associative memory to attitude psychology. Fazio used the often employed definition of an attitude as an association between an object and an evaluation[22]. He added, however, that both the object and the evaluation are stored as nodes in memory. Like any other construct based on associative learning, each node and the links between nodes can vary in strength. The strength of the object node, the strength of the evaluation node and the strength of the association between object and evaluation determine the *attitude strength*. Attitudes can be associated with other attitudes and can thus form *attitude structures*, or representational networks in memory. The links between attitudes can vary in strength. Furthermore, evaluations can be associated with links between attitudes.

Differences in belief systems as described by Converse have been reformulated in terms of associative network theory (see Judd and Krosnick, 1989). In addition to such a reformulation of the differences in belief systems, some new phenomena are studied. These studies focus chiefly on the dynamics of information processing as related to attitude structures. Fazio related attitude strength to *attitude accessibility*. Accessibility is defined as the likelihood that an attitude will be activated from memory upon mere exposure to the attitude object (Fazio, 1989). The accessibility of an attitude can be readily measured as the latency of response to an attitudinal question: the time between the presentation of an item and the moment when the respondent gives an answer is easily measured in computerized attitude measurement procedures[23]. Stronger attitudes will be activated automatically, whereas less strong attitudes can only be retrieved through an effortful, reflective process.

Phenomena such as 'priming' and 'spreading activation' also reflect the dynamics of information processing related to attitude structures. Priming denotes the effect of recent activation on the probability that an object springs to mind again. Spreading activation denotes the fact that activation of one attitude may also induce the activation of a linked attitude. Spreading activation will depend on the strength of the association between attitudes. For this reason, the study of spreading activation is a study of attitude structure (Judd, Drake, Downing and Krosnick, 1991; Tourangeau, Rasinski and D'Andrade, 1991).

In sum, the differences in belief systems described by Converse have been reformulated in terms of associative network theory. Furthermore, attention is paid chiefly to information processing, especially to the activation of attitudes from memory.

Attitude centrality

Converse observed that the dimension of attitude centrality was badly neglected in the social psychology of the sixties. Recently, social psychologists have begun to take a greater interest in this dimension (Eagly and Chaiken, 1993). Some survey researchers, too, made a plea for measuring the centrality of attitudes (for example J. Converse and Schuman, 1987), but their plea does not seem to have met with much response in survey practice.

Although more attention has been paid to attitude characteristics like centrality, research is rather fragmentary. A major problem is that centrality-like aspects are defined in many different ways. Various concepts are used to conceive of these aspects, including strength, importance, involvement, conviction, certainty and intensity[24]. Moreover, these concepts are measured in a lot of different ways. A related problem is the question of whether centrality is one-factorial or not (Raden, 1985).

Converse distinguished between motivational and cognitive centrality, which he assumed to be related. This distinction will be maintained. As has been explained in section 2.1, psychologists see motivational centrality as related to psychological needs and functions. However, motivational centrality can also be measured directly by asking respondents how important or central an attitude is to them, or how much they are involved with, interested in, or concerned about an attitude object. *Importance* will be used interchangeably as a short denominator of motivational centrality.

Converse studied knowledge[25], constraint and stability as concomitants of *cognitive centrality*. Cognitive complexity, attitude strength, and attitude accessibility, as these were described above, can also be seen as concomitants of cognitive centrality. Indeed, Fazio (1989) explicitly equates attitude accessibility with the nonattitude-attitude continuum developed by Converse[26]. Thus, cognitive centrality is assessed on the basis of the aspects which the researchers attribute to attitude structures, rather than on the basis of statements by respondents, which are often used to measure attitude importance. Some of the concomitants of cognitive centrality have been found to be interrelated[27]. Some relationships to importance have also been found[28].

Motivational and cognitive centrality are often confused with more traditional measures of attitudes, such as extremity or intensity. However, these measures express the extremity or intensity of the evaluation. For example, respondents are often asked: "how strongly do

you agree/disagree?". The confusion becomes even greater, since this characteristic of an attitude is often referred to as attitude strength, while the same concept is used by others to describe some concomitant of cognitive centrality (Raden, 1989). Another source of confusion is the fact that relationships between extremity and centrality have been found in some cases, but not in others (Raden, 1989; Tesser and Shaffer, 1990). To avoid the conceptual confusion in discussions of attitude strength, those measures which refer to the strength of an evaluation will be called *evaluative extremity* in the following. Attitude strength in the specific sense in which it is used in the theory on attitude structures as associative networks will further be referred to as *attitude crystallization.*

Extremity should be distinguished from cognitive and motivational centrality. As Converse claimed, extremity need not be related to knowledge, and constraint may well exist without the contextual knowledge of why belief elements are related. In fact, the question of whether cognitive processes should be assumed to lie at the basis of all attitudinal preferences has been widely disputed. Some studies have found evidence of direct evaluative appreciations which are not based on cognitive processes. Other studies found evidence of direct storage of evaluations in memory, independent from cognitions[29].

Social psychologists have assessed the functionality of motivational and cognitive centrality. Stronger and more important attitudes are frequently found to be more resistant to attitude change (Eagly and Chaiken, 1993), like Converse predicted. Attitudes and behavior are found to be more closely related when the attitudes are stronger and more important[30]. Stronger and more important attitudes are also more strongly related to selective perception and judgment (Fazio, 1989). It is therefore psychologically useful to distinguish and measure a centrality dimension.

There are few studies on the processes which lead to the formation of central attitudes, and hardly any that have been conducted in natural settings outside the laboratory[31]. It has been found, however, that direct personal experience (Fazio and Zanna, 1981), personal involvement (Lemmers, 1993), 'repeated exposure' (Bornstein, 1989), systematic cognitive elaboration (Petty and Cacioppo, 1986; Chaiken, 1987), personal responsibility (Cooper and Fazio, 1984), accountability (Tetlock, 1983), and conflicts between important values (Tetlock, 1986) are related to more central attitudes.

Conclusion

The psychological studies on attitude structures described above can be seen as elaborations of Converse's theory on the attitude-nonattitude continuum. They elaborate on each of the two interrelated properties of attitude structures that were identified by Converse: constraint and centrality.

As regards constraint, we found that the standards applied to arrive at constraint may range from ideological labels such as liberal/conservative to values and social groups. These standards may be used independently or they may be integrated. Both the number and degree of integration of standards are defined as cognitive complexity. It was argued that the constraint measure used by Converse is only a minimal measure of cognitive complexity. Apart from these studies, which tend to confine themselves to the content of

attitude structures, research has been carried out on the dynamics of cognitive information processing, in connection with the conceptualization of attitudes as representational structures in memory. Converse's concept of constraint has been reconceptualized in the terms of a cognitive psychology of attitudes, in which attitudes are seen as being represented in memory via nodes and links. Processes like the activation of attitudes, priming and spreading activation have been studied. Although they differ in focus, both the studies on cognitive complexity as well as the studies on attitudes as associative networks in memory rely on the psychology of attitude consistency of the fifties and sixties, just as Converse's theory did.

As regards centrality, this dimension has received some more attention in recent years. There is much confusion about centrality, however. The conceptual problems were discussed, culminating in a definition of three aspects of attitudes: motivational centrality (or importance), cognitive centrality and evaluative extremity. Cognitive centrality is assessed by some concomitants: knowledge, constraint, stability, crystallization, accessibility and complexity. It should be remarked once again that centrality and constraint are related. Whereas motivational and cognitive centrality are often found to be related, it is contested whether these two are related to extremity. It was argued that extremity should be seen as an independent aspect. Motivational and cognitive centrality were found to be psychologically functional in the guidance of behavior, perception, judgment and change.

Attitudes and nonattitudes in the opinion survey

Whereas all kinds of methods have been used in the studies described above, ranging from psychological experiments through surveys to in-depth interviews, other scholars have commented more specifically on the assessment of the attitude-nonattitude continuum in the opinion survey. Although the levels of sophistication have also been disputed[32], we will confine our discussion to those measures which are based on closed questions since these are predominant in current survey practice (see section 1.1).

Three aspects involved in the assessment of attitudes and nonattitudes in survey research will be presented. Firstly, some researchers have pointed out problems in the interpretation of the stability and constraint coefficients introduced by Converse. Secondly, other researchers have found higher levels of stability and constraint than Converse did. Thirdly, some other measures relevant to the attitude-nonattitude debate will be discussed: "no opinion" answers, answers to questions on obscure and non-existent issues and response effects.

The interpretation of constraint and stability

Variance and constraint

Barton and Parsons (1977) asserted that mass-elite contrasts in the intercorrelations between issues may have been affected by difference in response variance between the elite and the mass public. After all, the magnitude of a correlation coefficient depends on the variance of the answers in the subsamples. In an attempt to find a method to measure

constraint between attitudes independently of variance, Barton and Parsons (1977) took the standard deviation from his own mean of an individual's responses as an individual measure of constraint. If a respondent gives conservative answers to all items, his standard deviation will be low. This is also true of respondents who give only liberal answers or only neutral answers. On the other hand, if a respondent gives liberal answers on some items and conservative answers on others, his standard deviation will be higher. Hence, the standard deviation of an individual's responses from his own mean can be used as a measure of constraint.

Barton and Parsons claim, however, that it is better to use a measure of *'relative consistency'*. They argue that an individual's attitudes are constrained if his answers always occupy the same position in relation to the distribution of attitudes in the general population. This means that a 'centrist' will always pick answers close to the population mean. A conservative will always give answers which will end up on the conservative side of the population mean. Therefore, 'relative consistency' is calculated in two steps. First, the standard scores are computed for a sample, so that each score represents the deviation from the population mean. Second, the standard deviation of an individual's standard scores across the items is computed as the measure of 'relative consistency'.

Barton and Parsons tested this measure of relative consistency (see also Boosch, 1986). They found that a political elite sample had lower standard deviations across standard scores than a mass sample, indicating that their attitudes are more constrained. Higher-educated respondents were also lower on the relative consistency measure than less educated respondents, indicating that their attitudes, too, were more constrained.

Level of analysis

Although Converse found that, at the individual level, answers on survey questions were unstable for a large part of his sample, it is a very consistent result of survey questionnaires that the frequency distributions at the aggregate level are rather constant in time. Page and Shapiro (1982) examined a number of questions on public policy issues that had been asked in identical wordings between 1935 and 1979 in surveys conducted by the National Opinion Research Center or the Center for Political Studies. They found that the frequency distributions of the answers are rather stable over time at the aggregate level.

Inglehart (1985) also found that the distribution of the answers on a materialism/postmaterialism scale is rather stable at the aggregate level. He found some short-term effects on whether people agreed with materialist views, which were related to the economic climate (as measured by inflation rates). Furthermore, the relative positions of age cohorts at the aggregate level did not change across time. Inglehart also found aggregate stability of personal values measured by means of Rokeach' terminal value scale, including values such as a world at peace, family security, mature love and an exciting life.

This kind of evidence indicates that random answering may not be as widespread as Converse thought it was (see also Van Deth, 1989). Whenever respondents answer as if they are throwing dice, the dice seem at least to be biased. Taylor (1983) found some direct evidence for this idea. In a latent class analysis of the data used by Converse, Taylor (1983) found that the marginal proportions of the nonattitude holders in the

black-and-white model mirror the proportional distribution of attitude holders on the same issue. She concludes: "although their own attitudes are not crystallized well enough to produce consistent responses, the non-opinion class is apparently aware enough of the considerations that lead opinion holders to their positions (or perhaps aware enough of the dominant sentiment among the opiniated) to mirror these in their own collective response" (p.391).

In sum, it can be concluded that the proportion of respondents who give purely random answers is smaller than Converse initially assumed.

When constrained and stable answers are found

In some new studies, the answers on survey questions were found to be more stable and constrained than in Converse's study. Three aspects play a role in finding more stable and constrained answers: the state of the political field, the form and content of the questions and the characteristics of the respondents.

In surveys carried out between 1964 and 1972 it was found that the answers were more constrained than the answers in Converse's study in the fifties. Two opposing interpretations of these findings have been supplied: Nie and his colleagues attributed the increased constraint to changes in the political climate; Bishop and colleagues and Sullivan and colleagues attributed it to changes in question format[33]. While the discussion remained largely inconclusive, it directs the attention to two possible determinants of constraint.

The state of the political field

Nie and his colleagues reasoned that the constraint is higher because the mass public itself has changed. For the mass public, politics took on more salient features in the sixties than in the fifties, since public debates were more ideologically oriented, and opinions became more extreme. Nie et al. argue that the centrality of politics increased in the mass-public. People were thinking more about politics and, as a result, attitude strength and constraint increased. Nie and his colleagues concluded that the state of the political field and its perception by the electorate exert an influence on the structuring of the opinions in the mass public.

The interpretation of Nie et al. was refined by Carmines and Stimson (1982). Nie et al. found that the average intercorrelation between all issues increased. Carmines and Stimson (1982), however, assessed the constraint among specific issues. They were able to locate a growth in constraint especially in racial issues: in the sixties, questions on race were more strongly associated both among themselves and with questions on other issues. Carmines and Stimson attribute this finding to an increasing political interest in racial issues. While in the fifties opinions on race did not follow clear-cut party lines, by the sixties the political parties were much more outspoken on racial issues, which were also more often discussed during presidential election campaigns. They conclude that, although politics in general may have taken on more salient features, the heightened constraint is especially a result of a politicization of the race issue[34]. In Chapter 3 a more precise description of the political field and its influence on political attitudes will be given.

Question format and content

Although it seems plausible that the state of the political field can influence the level of constraint, this interpretation was challenged by Bishop et al. and by Sullivan et al. They pointed out that the format and the wording of the questions used by Nie and his colleagues were different from Converse's[35]. The results cannot be compared directly, therefore.

First, the question that was asked to filter out those who do not have an opinion was altered from "Now would you have an opinion on this or not" to "Have you been interested enough in this to favour one side over the other?". As Bishop et al. (1983) found, the second question filters out more respondents so that less nonattitudinal answers will be found.

Second, the format was altered from a one-sided Likert-type version in the fifties to a two-sided balanced version in the sixties. In experimental studies one half of the respondents were asked the questions in the format of the fifties and the other half were asked the questions in the format of the sixties. The latter format indeed produced higher constraint. Thus, Bishop et al., and Sullivan et al. concluded that the higher constraint is a result of the question format and not of a higher salience of politics. However, no explanation is offered as to why it is that the different formats influence the constraint of the responses.

Question format, then, is related to the constraint of the answers. Question content can also influence constraint, as well as the stability of the answers[36]. As was also found by Converse, in some political areas more stable and constrained answers are found than in others. More stable and constrained answers are given when it comes to values, racial and moral issues. Answers to questions on political strategies in foreign policy are the least stable and constrained. Domestic politics and social welfare have an intermediate position, although the latter is higher in stability and constraint than the former. Cluster and factor analyses often reveal groups of items which are related to the issue-content, but no overall liberal-conservative ideology. Clusters or factors such as welfare (Tourangeau et al., 1991), abortion (Tourangeau et al., 1991) or race (Carmines and Stimson, 1982) are found showing high constraint among the answers[37].

Characteristics of the respondent

Characteristics of respondents may also influence the proportion of nonattitudes found. In discussing the differences between the mass public and congressional candidates, Converse (1964a) only compared the level of constraint. Other studies also compared the level of stability between mass and elite[38]. In general, it was found that the answers of elite respondents on survey questions about political issues are more stable and more constrained. However, the differences that were found depended on the type of elite under study: a national elite, like members of a national parliament, differs more profoundly from the mass public than a local elite, like members of a City Council or active party members (Converse, 1974).

Converse claimed that differences in constraint are most profound between the elite and the mass public, but he also noticed that there are differences within the mass public. Although Converse (1964a) first asserted that differences in constraint are related to

educational level, he later (1975) commented that this was not the case. Other studies, too, have produced conflicting findings on the role of education: some researchers found that more educated respondents gave more stable and constrained answers[39], while others found no differences according to education[40].

It has often been found that respondents who say that politics is important for them give more stable and constrained answers[41]. However, differences are not always found[42]. Such findings may be related to the specific question(s) on the importance of politics that were asked. Schuman and Presser (1981) found, for example, that the stability of answers over time was related to the importance attached to a particular issue, but not to general measures of importance. Political knowledge is also found to be related to giving stable and constraint attitudes: the more respondents know about politics, the more reliable and constrained their answers are (Norpoth and Lodge, 1985).

Conclusion

The studies described above are often presented as contradicting Converse's thesis. Indeed, higher levels of stability and constraint have been found. However, although the results may differ from those obtained by Converse, they do not contradict his theory. Instead, they specify the conditions under which stable and constrained answers are likely to be found. As was described in section 2.1, Converse also mentioned the state of the field, question content and respondent characteristics as determinants of stability and constraint. Hence, he had no difficulty in incorporating most new findings in his theory (Converse, 1975)[43].

The state of the political field, question format and content as well as respondent characteristics are found to be related to the stability and constraint of survey answers. On some of these factors, especially educational level, contradictory results have been obtained. Furthermore, the relative importance of each of these factors has been disputed. Although many researchers tend to take a one-sided stance, e.g. crediting either political salience or question format, one should be aware that the different factors may be related. Furthermore, interactions may exist: more abstract or difficult questions are quite likely to yield higher proportions of nonattitudes, especially among the lower-educated. Research on such interactions is virtually absent.

Other indicators of nonattitudes

Whereas our description of the assessment of attitudes and nonattitudes in the survey focused on stability and constraint until now, some other measures of nonattitudes have also been studied. These are item nonresponse, obscure and fictitious issues, and response effects.

Item nonresponse

As described in section 2.1, Converse took "no opinion" answers for self-confessed nonattitudes. It should be noticed, however, that "no opinion" answers may also be given for other reasons, for example by respondents who are not sure about their opinion (Duncan and Stenbeck, 1988) or by respondents who do not agree with the way the

question is posed (Hermann and Streng, 1985; Lenoir, 1988)[44]. A lot of studies have been carried out on "no opinion" answers, or *item nonresponse*, as they are also called. It has been found that the level of item nonresponse is related to both question and respondent characteristics.

Presenting a *filter question* like "Would you say you have an opinion on this or not?" generally results in an increase of 20 to 25% in "no opinion" answers compared to questions where no such filter is added (Schuman and Presser, 1981; Bishop et al., 1983). As described above, the proportion of "no opinion" answers is related to which specific filter question is asked. As regards the content of the question: the more abstract and remote an issue (e.g. a question on arms shipment to Turkey), the greater the effect of a more strongly worded filter question will be (Bishop et al., 1983).

While it is often assumed that "no opinion" answers are randomly distributed, it is generally found that lower-educated respondents, respondents for whom politics are less important and women are more likely to give "no opinion" answers on political questions[45]. These differences are greater when the question is more abstract or difficult in its formulation.

Obscure and fictitious issues

Converse (1970) mentioned a study by Hartley (1948), which showed that respondents even answered questions about non-existent groups. Similar studies have been carried out more recently. Schuman and Presser (1981) asked a question on a highly obscure and little-debated 'Agricultural trade act' and 'Monetary Control Bill'. Bishop et al. (1980, 1986) posed a question on a non-existing 'Public Affairs Act'.

Again, the proportion of respondents who answered the questions was related to whether a filter question was added. In cases where a "no opinion" was not explicitly provided, about one third of the respondents in these studies gave a substantive answer. When a "no opinion" option was provided, this proportion was reduced to 5 to 10%. Blacks were more likely to volunteer an opinion than whites, and the less educated more than the better educated. This finding is somewhat puzzling, because these groups are usually found to give "no opinion" answers on political questions more often. Bishop et al. (1986) argue that "blacks and less well-educated respondents may thus be more likely to offer opinions on fictitious issues because they are generally less well informed about politics and therefore are less able to tell whether the topic is something that 'belongs'. As a general principle, then, we would hypothesize that the less knowledgeable a person is about a given subject, the more easily he or she can be confused and pressured to give an opinion about it." (p.248). It is unclear whether the result is specific to this study.

Both the analyses of "no opinion" answers and the analyses of answers on questions on non-issues illustrate the pressure to give an answer on survey questions. This pressure can even be brought to the point where questions are answered that had better be left unanswered. If respondents feel under pressure to answer, their answers may very well be nonattitudes, as Converse observed. Schuman and Presser (1981) found, however, that the answers on obscure issues were not completely random, but might have been induced by preceding questions.

Response effects

Converse (1974) hypothesized that "it is probable that extraneous factors like question form intrude most sharply on responses where attitudes are least crystallized" (p.565). In other words, respondents who have less crystallized attitudes will be more susceptible to response effects or response set. Some studies have been carried out to test this hypothesis[46]. Although the results of these studies are not too consistent, it can be concluded that whenever differences are found, the magnitude of response effects is greater for respondents who are less educated and for respondents who are less interested in the issue asked about or in politics in general. Some interaction between issue content and respondent characteristics may exist. Bishop (1990), using questions on the federal budget and on federal control of wages and prices, found between-subjects differences on a greater number of response effects than did Krosnick and Schuman (1988), who used more familiar issues like gun control and union membership. Results are especially conclusive with regard to the addition of a middle alternative: this answering option is especially popular among those who score low on measures of attitude intensity, importance, certainty and the like (Krosnick and Schuman, 1988; Bishop, 1990).

Some false assumptions on measurement error in surveys

Anticipating possible criticism of his work, Converse (1964a, 1970) suggested that some scholars might attribute the low stability coefficients to poor question writing. As was explained in section 1.1, the preferred way of dealing with the problem of whether respondents know what they are talking about is to find out better ways of writing questions. Indeed, some researchers have argued that all low stability coefficients imply poor question writing. Their criticism can be summarized as follows: "respondents are not vague, questions are vague".

Reasoning on the basis of psychometric theory, which was described in section 1.2, these researchers hold that answers are a function of both a 'true' attitude and random measurement error. The random error, or unreliability, is said to reduce the constraint and stability coefficients. The stability and constraint of the 'true' attitudes is said to be greater in reality than the 'raw' coefficients indicate. Stability and constraint coefficients should therefore be disattenuated for measurement error. In the seventies, several researchers reanalyzed the data used by Converse from this point of view[47]. While the specific assumptions underlying these reanalyses differed[48], they did share the basic assumption that the answers are a function of both the 'true' attitude and the measurement error. And indeed, after correction for measurement error, the stability was found to be much higher than in Converse's calculations, often coming close to 1.0. Achen (1975) even found stability coefficients of over 1.0.

Three objections can be made against this interpretation. Firstly, these researchers do not indicate in what respect the questions are vague, nor do they suggest any other formulation that is less vague.

The second objection addresses the technical procedures that were used. The stability and constraint coefficients are in fact reliability coefficients: the stability coefficient is a

test-retest reliability; the constraint coefficients can be seen as parallel-test reliabilities. Whenever these coefficients are corrected for measurement error, it is in fact the reliability coefficients that are corrected for measurement error. This is an odd procedure, since the coefficients are themselves indicative of measurement error, and should not be corrected any further.

Thirdly, the analyses all rely on the assumption that there is indeed a 'true' score to be measured. This is the very assumption Converse criticized. Converse (1964a, p.244) argued that some respondents have a 'true' score while others do not. Indeed, he found that some respondents gave reliable answers, while others did not, in accordance with the black-and-white model. The former will have a true score, the others will not[49]. The critics assumed that questions are either vague for everyone or clear for everyone. Converse's findings indicate, however, that what is vague for one respondent (e.g. someone who is not interested in a political issue) is not necessarily vague for another respondent (e.g. a politician who has to decide about policies on the same issue). The critics assumed that the low reliabilities indicate that Converse used a poor measurement instrument. Converse argued, however, that measurement error varies with *both* the characteristics of the respondent (like his educational level and his involvement in politics), *and* the characteristics of the question (like abstract formulations and far-away objects)[50]. Converse's findings imply that not everyone has a well-formed central attitude prior to its measurement: there is not always a 'true' value to measure. As Converse concludes: "the measurement of non-existent states is very unrewarding" (1970, p.177). The reliability should thus be interpreted not only as a characteristic of a questionnaire, but as a characteristic of the relationship between respondent and questionnaire. Recently, this has also been acknowledged in the more sophisticated areas of survey research (e.g. Alwin, 1991; Alwin and Krosnick, 1991).

Whereas it is possible to verify whether or not an answer is true for survey questions on social characteristics and actual behavior, it is difficult when it comes to attitudes to decide what the true score of a personal attitude should look like. There exists no objective measure (or at least one that is commonly agreed upon) to check whether or not an answer represents the true personal attitude. In the case of psychological tests designed to measure different aptitudes it is possible to decide whether an answer is correct or not, so that a 'true' score is always possible[51]. The analogy between psychological tests and opinion surveys is, therefore, much more problematic than has often been realized.

In sum, what can be learned from the debate about whether the instruments or the respondents are to blame is that not everyone has an attitude on the questions posed and thus not a 'true' score. As a result, the reliability coefficients may range from zero for those respondents who did not have an attitude before the measurement to one for those respondents who do have a central 'true' attitude.

2.3 Conclusion on the Converse debate

One of the concluding remarks of Chapter 1 was that survey researchers try to measure the 'true' score of an attribute of the respondents. This 'true' score should not be distorted

by the measurement procedure, but it should adequately reflect a personal attribute, unaffected by interviewers and question formulations. The question was raised, however, whether there is always such a 'true' score to be measured. The Converse debate centred on this question.

In survey research respondents are sometimes asked whether they have an opinion on the questions that are put to them. If such a 'filter' question is posed, it might be thought that respondents who do not have an opinion are filtered out. The respondents who give substantive answers (agree/disagree, yes/no) would at first sight seem to be those who have an opinion on the question. This assumption appears not to be true. Respondents often feel pressed to give substantive answers, even if they do not have a clear opinion which already existed before the question is asked. In fact, respondents even answer questions that had better be left unanswered.

Psychological theories on attitude structures can be used to assess whether an answer refers to a preexisting attitude or not. Although the concepts that are used and the relationships between them are not always clear, it is nevertheless possible to define some important attributes of attitude structures which relate to the attitude-nonattitude continuum. Converse used the psychological theories on attitude consistency that were prevalent in the fifties and sixties to analyze constraint in belief systems. In addition to the logical and psychological sources of constraint analyzed by the psychologists he suggested social sources of constraint. Furthermore, Converse drew attention to attitude centrality as an important dimension of attitudes. The description of centrality and constraint given by Converse has been updated with more recent psychological studies focusing on attitude strength and attitude structure. These studies share a cognitive point of view on attitudes.

In this chapter, a distinction was made between a cognitive and a motivational aspect of centrality. Knowledge, accessibility, crystallization, and stability were defined as concomitants of cognitive centrality. In extreme cases, a nonattitude may exist. Cognitive and motivational centrality were found to be related. In psychological research both centrality aspects are found to be functional in some of the most important research domains in attitude psychology: the prediction of behavior, biased perception and judgment, and attitude change. The relationship between cognitive and motivational centrality and evaluative extremity is contested. It is possible, and this has indeed been found, for people to express extreme attitudes which are not central.

Differences in attitude structures were described as differences in constraint and complexity. Constraint and complexity are also related to cognitive centrality, since more central attitudes are incorporated in more constrained and more complex structures. The origin of the standards used to arrive at constraint in attitude structures may differ from ideological labels to values and social groups. The number of standards used and their integration may also differ, as theories on cognitive complexity have shown. Furthermore, attitude structures may differ in range and content of objects, as Converse explained.

In general, it is assumed in survey research that respondents differ in the evaluative direction (pro or con) and evaluative extremity of their attitudes. Consequently, they are asked to indicate whether they agree or disagree with the items presented to them. However, it became clear in this chapter that the attitudes of respondents in survey

interrogations also differ in centrality and structure. Some respondents may not have an attitude at all. If questions are posed, those respondents arrive at answers in different ways. Converse demonstrated that some respondents will choose a "no opinion" option. Others will pick an agree/disagree or yes/no answer at random. Still other respondents will arrive at a meaningful answer, but only if the question matches a yardstick used by the respondents to evaluate politics.

A major criticism that was put forward in the debate following Converse's studies was the assertion that Converse exaggerated the number of respondents who answer at random. Various additional ways of arriving at answers have been described and empirically verified. Firstly, respondents without central attitudes have been found to be more prone to response effects. Selecting a middle alternative appeared to be especially attractive for those who do not have a clear-cut attitude on a question. Secondly, respondents may give an answer which only reflects an evaluation and is thus not related to cognitions or contextual knowledge. Thirdly, respondents may have some vague idea about the dominant opinions among attitude holders at a certain point in time.

Whereas these three are alternatives to random answering, there are also alternatives for arriving at meaningful answers. They can be summarized under the heading of 'idiosyncratic ways of reasoning'. As Lane (1962, 1973) argued, respondents may not answer along the lines of liberal/conservative ideology and still give meaningful answers. It can be hypothesized that idiosyncratic reasoning will occur more often among respondents who reason on the basis of rather complex attitude structures.

It has been demonstrated that respondents will respond in a variety of different ways to the survey questions that are presented to them. In this chapter, some measures were described that can be used to assess where answers can be placed on a scale ranging from nonattitudes to central attitudes. Concomitants of cognitive centrality which can readily be measured in surveys with closed questions are knowledge (measured by knowledge tests) and "no opinion" answers (which indicate more directly whether respondents have an attitude on a question). If a computerized procedure is used, attitude accessibility can be measured by response latency (Fazio, 1989). Reliability coefficients can be used to assess the crystallization of an attitude: the higher the reliability, the more crystallized the attitudes[52]. To do this, one can use the test-retest reliability as Converse did, or any other reliability estimate (e. g. the LISREL estimates used by Norpoth and Lodge, 1985). To assess attitude constraint, one can use either the intercorrelations between items, as Converse did, or the 'relative consistency' measure developed by Barton and Parsons (1977). The latter has the advantage that it is independent from the variance of the responses in a sample. In Chapters 5 and 6 we will demonstrate exactly how these indicators of cognitive centrality were used in the present study.

The studies described in this chapter warrant some conclusions on attitude centrality and structure. The different indicators of the nonattitude-attitude continuum were found to be related. They are also all related more or less similarly to the state of the political debate on an issue, the question form and content, and respondent characteristics. As regards question content, the proportion of nonattitudes found on a question will depend on the number of standards that can be applied to it and on the proportion of respondents who

employ such standards. Question form (the formulation of a filter question and one-sided versus balanced questions) and question content (racial issues, domestics policies) both have an effect on the level of centrality and structure that is found. As regards respondent characteristics, more nonattitudes, less central and less structured attitudes are found among respondents who are less interested in politics. The relationship with education is somewhat less clear, since different studies have come up with different results.

It can be concluded, then, that not all answers on survey questions reflect a preexisting attitude. Answers do not always reflect a 'true' value of an attitude even if respondents have the opportunity of giving a "no opinion" answer on a question. In reply to critics arguing that questions may be poorly phrased and that this is the reason why no 'true' value is found, it was argued that other formulations of question do not change the fact that some respondents may not have an attitude about an object they are asked questions about. Consequently, it was argued that reliability is not a characteristic of the questionnaire, as is often assumed, but a characteristic of the relationship between a questionnaire and the respondents.

Although Converse also pointed out the social nature of attitude constraint and centrality, there was a tendency in the debate, especially among social psychologists, to focus exclusively on centrality and constraint as individual attributes. Attitude structures are studied only in relation to intra-psychological processes. In the next chapter, it will be shown how the work of Pierre Bourdieu demonstrates that differences in attitude centrality and structure are related to social and cultural processes.

3 THE SOCIAL SIGNIFICANCE OF PRODUCING POLITICAL OPINIONS

A large part of the previous chapter was devoted to psychological theories of attitude structure. Such theories describe differences in the cognitive organization of attitude structures. They tend to ignore the social processes and structures which lie behind these differences in attitude structures. Some studies, which were also described in the previous chapter, focus more on social processes and structures. In such studies, the differences in attitude structures found in the survey are related to the state of the political field, mass-elite contrasts, and social characteristics of respondents. This chapter will provide a more systematic reflection on the social side of differences in attitude structures. This reflection is largely based on the work of Pierre Bourdieu.

Bourdieu's work is especially suited to elaborate on the social processes and structures relating to differences in attitude structures. Bourdieu analyzes how these differences, or differences in political opinions as he terms them[1], are constituted and function in politics in general[2]. Much like Converse, Bourdieu draws a distinction between the production of political opinions by a political elite and the consumption of these opinions in the mass public. In his work, differences in political opinions are linked to some political phenomena which are often studied as isolated phenomena in other theories on politics, such as agenda setting, political participation and political information in the mass-media. Hence, the expression of opinions in surveys is seen by Bourdieu as only one in many political activities, and one which can only be understood if it is related to the dynamics of politics in general.

Bourdieu's theory on political opinions has its place in a more comprehensive sociological theory of culture[3]. Bourdieu analyzes political opinions as *cultural products* similar to products from other cultural domains, like sports, religion, or works of art, literature, and science. Although Bourdieu sometimes uses the concept of culture in a more restricted sense, as referring to works of art ('higher culture') only, he generally employs the concept in its more general, anthropological sense, referring to all products of mankind. Here, the concept of culture will be used only in the second, broader sense. Bourdieu also uses the term '*symbolic* products' to indicate cultural products in the broader sense of the term. Although there are general characteristics in the social functioning of symbolic goods, each cultural domain also has its own particularities. Whereas, until now, differences in opinions were studied mainly on the political domain, this broader conception allows for an elaboration on differences in opinions in other cultural domains. After the description of political opinions as only one form of cultural products in this chapter, in the next chapter, these views on opinions will also be applied to another domain, i. e. health and illness.

Bourdieu, then, relates the expression of opinions in the survey to the more general characteristics of the political domain, which is only a specific domain of cultural production. Bourdieu's theory is well-suited for the description of the social processes and structures related to differences in attitude structures for another reason, too, since he

argues that in order to understand how all kinds of cultural products have been made, it is also necessary to investigate how these products have been generated from mental structures. Unlike some other sociologists, Bourdieu attaches great importance to the mental structures from which cultural products are made.[4] The study of social structures is only the first stage of research and should be complemented with the study of mental structures, Bourdieu (1992) claims. Unlike most psychologists and some other sociologists, Bourdieu asserts that the production of cultural goods, too, is bound by the social structures in which mental structures developed.[5] Therefore, the study of mental structures should always be preceded by the study of social structures.

In this chapter we will give an outline of Bourdieu's work on politics and political opinions and explain how it relates to his general sociological theory.

3.1 The political opinion economy

In his sociological culture theory, Bourdieu often uses economic concepts to analyze the production of symbolic goods, such as products, means of production, profit, interest or capital. As Bourdieu's characteristic use of these concepts has often given rise to misunderstanding, it is useful to make a general remark here on how he employs them. The notion of an *economy* should not be conceived of as the economy of the free market where money is the main form of capital. Bourdieu (1992) holds that this conception of the economy is limited to only a specific manifestation of the economy in a more general sense of the term. Bourdieu asserts that all human products, including money, have a social value. Consequently, the production of highly valued goods will lead to a certain kind of profit. Profit itself does not have to be material, it can also be symbolic as, for example, in recognition and esteem in the eyes of others. If people have an interest in producing certain cultural goods, such as sports, opinions, art etc., they are, therefore, not only plain material interests. Thus, Bourdieu does not reduce the production and circulation of symbolic goods to the status of an epiphenomenon of the economic substratum, like some Marxist sociologists do. Instead, symbolic goods have social functions of their own.

Bourdieu distinguishes between two important social structures in the production and consumption of symbolic goods. On the one hand there is a *field*, where an elite produces cultural goods. Politics, art, sports, religion, science etc. are all produced in different relatively autonomous fields. Although each field has its own dynamics, Bourdieu (1980c, 1992) claims that it is possible to conceive of some characteristics common to all fields. On the other hand these cultural products are consumed by the mass public, which Bourdieu (1979, 1984c) describes as a *social space of class positions*.

The production of political opinions in the political field

Like every other field, the political field can be visualized as a space in which people occupy interrelated positions. Each field is relatively autonomous, i.e. the production of cultural goods is more or less independent from other fields and has its own regularities. The autonomy of a field in relation to other fields is the result of social, historical processes. The field of art, for example, has acquired a relative independence from the

economical field. Two aspects of the autonomy of a field will be described here: a field has certain boundaries, and its members are relatively independent in the production of cultural goods belonging to the field.

Bourdieu asserts that there is an ongoing struggle in each field about who does and who does not rightly belong to the field. Like its autonomy, the boundaries of a field are the results of a historical process. They are not given once and for all. The main actors on the political field, who occupy legitimate, professional positions are politicians, journalists, and political scientists (Bourdieu, 1973b). In relation to the struggle over its boundaries, Bourdieu analyzes the prerequisites for gaining access to a position in a field. These prerequisites differ from one field to another, but they are predominantly social in all fields, and may include, for example, the condition that a person should have the right title and know the right people. The trajectories leading to a position in the French political field have become more or less institutionalized. The 'sciences-po' (l'Institut d'Etudes Politiques in Paris; one of the 'grandes écoles' studied by Bourdieu in "La Noblesse d'Etat" (1989)), plays an important role as a gateway to political positions.

Besides the question who does and who does not belong to a field, there is also a struggle about the definition of the cultural products which legitimately belong to a field. Just as there is a struggle about what constitutes a work of art, there is a struggle in the political field about what are legitimate political goods. Not all social problems are recognized as political problems. The definition of specific social problems as legitimate political problems is part of the political game. Bourdieu conceives of the social processes involved in the production of legitimate political problems as a process of consecration. Social problems can be made into political problems, for instance, by political commissions authorized to do so[6]. The authority invested in such a commission, or more generally in an important actor on the political field, to work out a position on a new political issue, makes it possible for such an issue to be accepted by the actors in the political field[7]. This consecration also implies a more specifically political definition of a problem. The problem has to be defined in the specific political language that is valid in the field[8]. An important aspect of such a definition, which is related to the Converse debate, is the explanation of the relationship between the problem and existing political values and ideologies. It is only after such a work of consecration has been carried out that a problem is recognized as a political problem. The politicization of the race issue which took place in American politics in the sixties can be cited as an example (see section 2.2)[9]. Thus, the acceptance of a problem as a political issue requires a specifically political definition. Such a definition will be different from other definitions and interpretations of the same problem, for example its definition in the scientific field.

However, the shared beliefs about legitimate producers and legitimate products do not ensure that all positions in a field are equal and that all actors have the same appreciation of products. Bourdieu explains that there is always a continuous struggle in the field between those with established positions, the dominant, and those who try to establish their positions, the dominated. The dominant defend their positions in an orthodox discourse, the dominated criticize the position of the dominant in a heterodox discourse. So, Bourdieu analyzes the relationships between positions as relations of domination. One's position in a

field will determine what stance one will take on specific issues, for example whether one will take a leftist or rightist stance on a political issue.

Bourdieu interprets the struggle in a field between the dominant and the dominated as a game. If one is to be able to play the game, and to be taken seriously by the other players, it is necessary to master the rules of the game. Bourdieu describes this mastery as a 'feel for the game'. Accordingly, if one is to produce political opinions that are recognized as such and that can influence the course of political affairs, it is necessary that one has this 'feel for the game'. In other words, a person has to be equipped with the mental structures that enable him to do the right things within a field. The way one enters a field, via the 'sciences-po' for example, is the way in which one acquires these mental structures.

In the political field, as in any other field, there is a struggle between dominant and dominated members. Within each field, however, there is consensus about who the legitimate producers of products are, and what the legitimate products are. Actors in a field also agree on the rules of the game. This consensus is based on a shared belief within each field that the field is important, and that it is important to maintain its existence and autonomy. Bourdieu says that, from a point of view outside the field, there is always something arbitrary about the consensus on legitimate producers, products, and rules of the game. For this reason, Bourdieu (1992) terms this consensus or shared belief an '*illusio*'.

In sum, it can be concluded that legitimate political opinions in the political field are produced by legitimate producers. Legitimate political opinions are formulated in a specifically political language, which refers to political values and ideologies.

Technical competence and the attitude-nonattitude continuum

Since the products of each field are produced according to the rules of the game that is played in that field, they have certain specific characteristics. People in the mass public can only make sense of cultural products if they have acquired the mental structures which enable them to recognize these specific characteristics. In the political domain, for example, a person can only make sense of political goods if he is able to recognize the specific political properties of the goods. Bourdieu defines the means to make sense of political products in their specific political aspect in terms of *technical competence*. Technical competence is a continuum ranging from the inability to recognize opinions in their political aspect to the ability to produce political opinions. Similarly, each field is connected to mental structures, which can be defined as the technical competence, or capacity, to recognize products as belonging to the field and to produce judgements about them. Technical competence on the political field will also be referred to as *political competence*.

Bourdieu identifies some characteristics of political opinions, which are quite similar to the concomitants of cognitive centrality that were described in the previous chapter. This means that technical competence is related to the nonattitude-attitude continuum described in the previous chapter. In the first place, Bourdieu says that political opinions are produced on the basis of specific political principles. The previous chapter mentioned the

standards that were apparently used by people in order to arrive at attitudes in more or less complex ways. These standards can be equated with Bourdieu's specific political principles, since all the standards mentioned are of a political nature: a political ideology yardstick (liberal-conservative), political values (such as freedom, equality) and politically significant groups (parties, social class, race). Secondly, Bourdieu asserts that political opinions are coherent, since people who have the competence to produce political opinions will be sensitive to inconsistencies in their opinions. In this respect, Bourdieu's analysis is similar to the analysis of attitude constraint by social psychologists. As was explained in the previous chapter, psychological theories on attitude constraint also emphasize the role of inconsistencies in arriving at constrained attitudes. Thirdly, political opinions are often presented as 'personal' opinions. People who are competent to produce political opinions often seek to develop a personal view on a political issue. This aspect of political opinions is related to the idiosyncratic way of reasoning described in the previous chapter. And in the fourth place, people who often express political opinions, will arrive at them more or less automatically. They do not have to reflect before they give their opinions. In Fazio's terms, their attitudes will be easily accessible and automatically activated.

Bourdieu says that producing automatically coherent personal opinions on the basis of specifically political principles is only a very specific way of producing opinions as such. In addition to the characteristics of political opinions already mentioned, Bourdieu mentions the characteristic that political opinions are formulated in a specific language which is rather distant and abstracted from experience. The way in which political opinions, with all the attributes that were mentioned, are produced is called *logos* by Bourdieu: "The symbolic mastery of experience which is expressed in discourse socially recognized as political and which presupposes the bracketing of all direct, exclusive reference to the concrete particularity of a situation" (1984b, p.461). Bourdieu asserts that the production of opinions does not always result from an intention to express a coherent, personal opinion. Nor are the opinions always deduced from specifically political standards. The opinions may also remain closer to personal experience. In this respect Bourdieu is like Converse, who also said that other kinds of opinions exist. Bourdieu's views on other ways of producing opinions will be discussed in the 'epilogue'.

Technical competence to produce opinions on other fields can be described in more or less the same way. Evidently, the standards that are used are not political; each cultural field has its own standards.

In sum, the technical competence to recognize and produce political opinions is related to the attitude-nonattitude continuum, but Bourdieu argues that expressing coherent, personal, opinions based on specific political standards in an automatic way is only one highly specific way of expressing opinions.

Technical competence and the relation to the political field

Social psychologists focused exclusively on cognitive concomitants of centrality, such as accessibility, crystallization and constraint. In Bourdieu's view, however, the differences in technical competence also reflect a more general relationship with the political field that

is visible in patterns of consumption, participation and delegation to representatives. Since consumption, participation and delegation also indicate the amount of mental time spent on political issues, they will also be related to cognitive centrality.

Bourdieu asserts that people differ in their *consumption* of the political opinions as they are disseminated by the mass media. Not only do people differ in the amount of time they spend reading about politics in papers and watching political television programs. Reading a newspaper or magazine and watching television has a different meaning for the readers and viewers. Only some people see these as activities that satisfy a need to be permanently informed about politics, the state of the political debate and the political problems of the day. Only some people see this permanent effort to be informed as related to the formation of a 'personal opinion' about the political problems under discussion. So, as Bourdieu (1984b) states: "a newspaper is a 'viewspaper' (journal d'opinion) for only a minority" (p.441).

In addition to these differences in political consumption, Bourdieu analyzes differences in political participation. People who are capable of producing their own political opinions *participate* more often in political debate, for instance by sending letters to representatives or to newspapers. Furthermore, if people differ in their competence to produce political opinions, they also differ in how they *delegate* their 'political voice' to their representatives. People, who are more competent to produce political opinions are less dependent on their representatives and delegate their political voice only reluctantly. People who are less capable of producing political opinions depend more on their representatives to formulate their needs and wishes in order to make them politically legitimate. Without their representatives they have no chance of being listened to. They need organizations that can provide them with a political program. Their delegation is thus much more radical: they give parties or unions a kind of open credit or 'carte blanche' to participate in the political field.[10]

Whereas differences in consumption will also exist on other fields, participation and delegation may be more specific for the political field. Actors on other fields are usually not assumed to represent any mass public. Furthermore, the barriers for members of the mass public to participate in other fields may be more difficult to surmount than in the political field. For example, in general it is only scientists who can produce legitimate scientific works. Whereas the participation of the mass public in the political field is highly valued, it is less so in other cultural fields.

In sum, differences in political consumption, political participation and delegation are related to differences in political competence[11].

Social position and the competence to produce political opinions

Unlike the social psychologists who described differences in attitude structures, Bourdieu focuses on the social significance of these differences. Competence in the sense of a technical capacity is related to competence in the sense of being socially recognized as a legitimate producer of cultural products. In Bourdieu's theory, this social counterpart of technical competence is called *social competence*. Both will be related, for if people have

the social right to speak and to voice their opinions about cultural products such as political issues, they will develop their technical competence further. Social competence is socially ascribed to some people by others, but it also has a subjective counterpart: people also have a feeling in a certain situation whether they are competent to express an opinion or not. On the political field, unlike on other fields, everybody is ascribed the competence *de jure* to express political opinions (for example in elections or referenda); as was already mentioned above, political participation is valued more in the political field than in other fields. However, not everybody feels *de facto* competent to express political opinions. Political participation depends on the degree in which one feels socially competent to express one's opinions. Therefore, the relationship between social competence as ascribed by others and social competence as ascribed by oneself is not perfect. On the political field at least, the degree in which one feels competent will, therefore, be more strongly related to one's technical competence than to ascribed social competence.

As was explained above, Bourdieu says that all cultural products are socially valued. Political opinions on the basis of specific political principles are seen as the only legitimate opinions about politics. Only these opinions can have an influence in the political field. Bourdieu also refers to the production of these kinds of opinions based on the *logos* as the *dominant* way of producing political opinions. As mentioned before, people who are not competent to produce political opinions may be able to produce other kinds of opinions, but these opinions do not weigh as heavily as the dominant, legitimate opinions: they are *dominated*. If one talks about politics, the legitimate, dominant way of doing so is by expressing specifically political opinions.[12] This social valuation of opinions might explain why some people who are *de jure* socially competent would refrain from expressing their opinions. If people are not capable of producing politically valid opinions, they might rather remain silent than express opinions which are not legitimate in the field.

In addition to this valuation of the expression of opinions, there is another, related, social significance of the competence to recognize and produce political opinions. Since not everyone is technically competent, this competence acquires a certain scarcity value. In view of its valuation and uneven distribution, this competence can be seen as a specific capital. Bourdieu terms it a form of *cultural capital*, embodied in individuals. It is comparable to other cultural competences, which are also forms of embodied cultural capital, like being able to read in a world of illiterates, or being able to produce legitimate judgements on art. In general, certain mental structures can function as a form of capital in a specific social constellation.

As a form of cultural capital, each cultural competence can yield a profit. The main profit Bourdieu conceived is *distinction*, i.e. to be socially distinguished from other people, and to be credited with status and authority because of one's mastery of a dominant cultural competence. In other words, there is a symbolic *interest* in being able to recognize and produce political opinions in the dominant way.

As they are all distinctive in this double sense, all forms of cultural capital are constitutive of social classes (Bourdieu, 1979). In his analysis of the social space of class positions, Bourdieu distinguishes between two important axes. Apart from an economical axis, which comprises the volume of economic capital at one's disposal, there is a cultural axis, which

comprises the volume of one's cultural capital. Bourdieu often uses educational qualifications as overall measures of cultural capital. In his view, political competence especially is closely related to the level of education. One's position in the space of class positions will be determined by the overall volume of capital, and by the relative weight of economic and cultural capital.

A person's technical competence to recognize and produce political opinions will therefore be related to his social position. Indeed, Bourdieu (1979) showed that consumption patterns, participation in politics and differences in delegation are all related to one's social position, and especially to the volume of one's cultural capital. Such relationships with social class are hardly ever taken into consideration by (social) psychologists, especially since they carry out their studies mainly on college students (Jahoda, 1986; Sears, 1986).

In sum, the technical competence to recognize and produce political opinions has a social counterpart, which can be described as the right to express opinions. In the political field, opinions that are produced according to specifically political principles will have a higher social value and will have more impact than opinions that are produced otherwise. Socially, this is the dominant way of producing political opinions. Technical competence functions as a form of cultural capital which is unevenly distributed in the mass public.

3.2 Tacit assumptions in survey research

On the basis of this general theory on political opinions, Bourdieu developed a critical view on the political opinion survey[13]. This critical view is inspired by the question of what makes it possible for people to give a politically meaningful answer to questions about political issues. Bourdieu identified three assumptions on which such surveys are based, but which stand in the way if one wants to answer this question. These assumptions must be challenged if one is to arrive at a rigorous and solid analysis of the answers given by the respondents.

Consensus on the questions

In the first place, asking everyone the same question implies that there is a consensus that the question is worth asking. Instead, Bourdieu argues, this consensus is only relative. Often, it is only the political elite who considers the questions posed in surveys, and especially in opinion polls, worth asking. The political issues about which questions are asked are most often the kind of issues that are accepted in the political field as legitimate political goods. Whenever a problem is seen as important by political elites, however, this concern need not match the concerns of the mass public.

Everyone is competent to produce answers

In the second place, since everyone is equally liable to be asked to participate in a survey, it is assumed that everyone will have an opinion. However, as was explained above, not everyone is socially and technically competent to produce political opinions. Bourdieu

claims that both the unit nonresponse and the item nonresponse provide important information on social and technical competence. To illustrate that participation in a survey can be seen as a result of social competence, Bourdieu (1979) mentions a survey on educational reform in which respondents were recruited by advertisements in newspapers. The sample consisted disproportionately of teachers and professors or, in other words, of people who were especially (professionally) interested in educational problems. Such a sample is a good indication, according to Bourdieu, of the spontaneous mobilization of a group of those who feel competent to give their opinion on a specific issue, in Converse's terms an issue public.

As regards item nonresponse, Bourdieu argues that even if "no opinion" answers are provided in a survey, they are not often taken seriously. But, Bourdieu goes on, the information given by a survey is first and foremost, whether people have opinions. The distribution of agree/disagree or yes/no answers is only of secondary interest. The number of people who give "no opinion" answers are a good measure of the social competence to produce an opinion. As can be expected from his findings on political competence, Bourdieu concludes from a series of analyses that the proportion of "no opinion" answers is related both to the social position of the respondents and to characteristics of the questions. In his own words, the probability that respondents express an opinion is "greater for men than for women, greater for the young than the old; greater in large towns (especially Paris); and rises with educational capital (measured by qualifications) end economic capital (measured by income) and with social position. The variations linked to these variables are that much more marked when the questions are more remote from experience, more abstract and detached from ordinary realities in their content and phrasing (and also, but secondarily, when they have only recently appeared in the field of ideological production) and when they require more insistently a response produced on the basis of specifically political principles (a demand that is perceived in the very syntax and vocabulary of the question)." (1984b, p. 400). This conclusion matches the evidence from the studies on "no opinion" answers that were described in section 2.2. Hence, "no opinion" answers constitute a good indicator of political competence.

All answers reflect valid political opinions

In the third place, it is assumed that all answers are political opinions. Bourdieu, however, holds that the competence to produce a "yes" or "no", "agree" or "disagree" answer is only a minimal requirement, a base-line competence to recognize and produce political opinions.

Survey researchers often formulate their questions in a highly simplified way so as to avoid the highly complex and abstract language of politics (see also chapter 1) and get more respondents who are able to give answers. However, it is forgotten that respondents can then give answers even if they do not grasp their political significance. Thus, answers can be given either on the basis of specific political standards or in other ways. Furthermore, it is forgotten that the political significance and valuation of the items is changed when they are translated into a language which is not the dominant language of

politics. At the same time, it should not be forgotten that the questions are not formulated in everyday language, but in a specific survey dialect, as T. Smith (1987) demonstrated.

Bourdieu asserts that answers can only be legitimate political opinions if they are produced by respondents who are competent to recognize the political properties of the question. Of course, this is not always the case. Not unlike Converse, Bourdieu concludes: "In fact not all answers are opinions, and the probability that a given group's responses are only disguised nonresponses, polite concessions to the imposed problematic or ethical discourses naively received as 'personal opinions', no doubt varies in the same way as the probability of nonresponse which characterizes that group. The propensity and ability to raise interests and experiences to the order of political discourse, to seek coherence in opinions and to integrate one's whole set of attitudes around explicit political principles, in fact depends very closely on educational capital and, secondarily, on overall capital composition, increasing with the relative weight of cultural capital as against economic capital" (1984b, p.417-418).

It becomes clear that the different ways in which respondents arrive at answers on political survey questions, which were described in the previous chapter, are subject to different social valuations. Giving random answers, giving answers based only on an evaluation that is not backed up by knowledge, giving answers in idiosyncratic ways etc. will all have a different social value. From a sociological point of view, it is functional and necessary to distinguish between these different ways of arriving at answers, just as it is found useful and necessary to distinguish between more and less cognitively central attitudes from a psychological point of view.

A 'science' without scientists

Bourdieu concludes that opinion surveys are *logocentric*: the political opinion survey mirrors the dominant way of producing political opinions in the modality of the logos. If survey researchers do not realize that their opinion surveys are logocentric they fail to raise the most pertinent scientific questions. Similarly, survey researchers who do not provide "no opinion" answers, do not take them seriously and take every answer for a valid political opinion, project the dominant way of producing opinions on their respondents, while in fact not all respondents have the competence to produce this kind of opinions. In Bourdieu's terms, they construct a 'public opinion' where no such opinion existed before, based on the 'illusio' that public opinion already exists in reality and need only be objectified in a measure like an opinion poll. Whenever researchers fail to raise the most pertinent questions about the way answers are produced, their work can hardly be called scientific. Therefore, Bourdieu (1987b) calls opinion polls a "science without scientists". Bourdieu thus questions the scientific legitimation of survey practice (section 1.1).[14]

Of course, as has become clear in the first two chapters, there are survey researchers who do recognize the problems of "no opinion" and of the different meanings of answers. This applies especially to those researchers who took the answering processes in opinion surveys as a subject of study. They often tried to outline procedures for dealing with the

problem that respondents may not all have opinions on the questions asked. For the most part, however, "no opinion" answers are not taken seriously in current survey practice. In fact, frequency distributions are often calculated with "no opinion" answers excluded. Furthermore, in survey practice the quality of the answers is often not assessed. This problem becomes especially acute where no pretests on the interpretability of the questions are conducted. Reliability estimates are often not specified (Alwin, 1991). Calculating reliability estimates for different subsamples, a method that was advocated in the second chapter, is even more rarely applied, as is the method of measuring some form of cognitive centrality.

In sum, the practice of opinion surveys can be characterized as logocentric. If it is not realized that the questions asked are about specifically political problems, and if it is not realized that not everyone is competent to produce politically legitimate opinions on these questions, survey practice can hardly be called scientific, because it unjustifiably projects a specific form of opinion production on all respondents.

3.3 Conclusion

The differences in political competence in the technical sense as analyzed by Bourdieu, although stemming from a very different theoretical point of view, parallel the cognitive differences between attitudes and nonattitudes analyzed by social psychologists. Competence and centrality will be used further on as a kind of twin concept with two different theoretical flavors. Bourdieu showed that the competence to produce opinions in the modality of the *logos* is only a highly specific way of giving opinions, characterized by the ability to give automatically elicited and coherent personal opinions, based on political principles and relatively independently from personal experience. Indicators of competence not only include these predominantly cognitive aspects attributed to opinions, but also a number of behavioral concomitants of cognitive centrality such as consumption, participation and delegation.

Bourdieu emphasizes the social processes that are related to political competence. The dominant way of expressing opinions is produced initially by the political elite in the political field. Members of the mass public vary in their abilities to recognize these opinions and to express their own opinions in this dominant way. This technical competence is related to social competence: the right to express one's opinions. It can be conceived of as a form of embodied cultural capital, which is unevenly distributed in the mass public. Technical competence appears to be especially related to the overall volume of cultural capital and to educational qualifications. There is a social interest and symbolic profit in the ability to recognize and produce legitimate political opinions.

Bourdieu asserts that the survey is *logocentric*, i.e. it mirrors the dominant way of producing opinions in the modality of the logos. If the differences in technical competence are taken seriously, however, some interesting phenomena can be observed in the survey answers. Some respondents will not cooperate in a survey, or will not express any opinions on some questions, because they feel incompetent to do so. Other respondents will give answers that do not reflect a legitimate political opinion. After all, respondents arrive at

answers in different ways, which have different social valuations. Only legitimate political opinions can be counted as the 'true' values that survey researchers are looking for. Since political competence is related to the attitude-nonattitude continuum, the different ways of assessing aspects of this continuum ("no opinion" answers, crystallization, accessibility and constraint) can be used to assess political competence. The findings of Bourdieu on the social distribution of "no opinion" answers and on the use of political standards of judgement match the findings discussed in section 2.2.

As was outlined in this chapter, Bourdieu holds that the production of political opinions is only one specific manifestation of the production of cultural products. Both in the elitist fields of production and in the consumption of cultural products in the mass public there are some general social processes. However, each field is also characterized by a relative autonomy and by some differences in comparison with other fields. A particularity of the political field is, for example, that *de jure* everybody is attributed the right to participate in the field and to try to modify the course of political processes. Furthermore, unlike actors in other fields, actors on the political field are assumed to represent the mass public. In the next chapter, we will discuss another cultural field, in which the production and consumption of opinions may well differ from those in the political field: the field of medicine.

4 TOWARDS RESEARCH HYPOTHESES

The conceptual tools discussed in the preceding chapters will be summarized in this chapter. Hypotheses will be formulated on the research questions asked in the introduction. Before doing so, it is argued in the first section that it is necessary to broaden the study to another cultural field than politics to gain a better understanding of the social processes related to attitude centrality and competence. In the current research project, the domain of health and illness was chosen as a second domain. In the second section this domain will be described briefly so that hypotheses can be formulated with regard to the social distribution of attitude competence and centrality on this domain. The theoretical perspective of the present study is explained in section 4.3, using the conceptual tools discussed in the previous chapters. Research hypotheses based on this perspective are formulated in the fourth section.

4.1 The specificity of the political field

The opinion survey and the political field

The first chapter described how in the course of this century the survey developed into a widely accepted and very often used social technology. Apart from other uses, such as population statistics or marketing research, the survey is often employed in the political field. In fact, opinion surveys play an important role in the political field (Champagne, 1990): nowadays, 'public opinion' is defined in terms of the results of opinion polls. In these polls, questions are asked on issues that are important in the political field.

As was explained in the first chapter, the use of surveys was legitimated on the basis of democratic principles. The implicit assumptions in survey research, which were discussed in the previous chapter, are very similar to the principles of democracy: every citizen is considered competent to produce political opinions and all answers are attributed the same political value. Such assumptions can also be found in elections and referenda, for example.

Both Converse and Bourdieu demonstrated, however, that not everyone has political opinions and that not all answers on survey questions are produced in the same way. The different ways of generating answers were found to be functionally different both from a psychological and a sociological point of view. The critical remarks on the opinion survey that were made by Converse and Bourdieu were easily mistaken, however, for a criticism of democracy as such. Many critics of Converse and Bourdieu aimed at restoring the faith in the democratic value of the opinion survey, public opinion and the competent rational citizen. They carried out new studies, the results of which were presented as being falsifications of the studies of Converse and Bourdieu. However, it was explained in Chapter 2, that instead of falsifying Converse's theory, these studies did little more than specify certain conditions for finding stable and constrained answers.

As Champagne (1990) explains, these critics confuse a political interpretation of survey answers with a scientific interpretation. From a political point of view, it may be legitimate to assume that all answers on opinion questions count, no matter how they have been

arrived at[1]. However, from a scientific point of view, be it psychological or sociological, the answers given in opinion surveys should be interpreted in connection with the very different ways they have been arrived at. The dominant, taken-for-granted political interpretation should be put aside. Both Champagne (1990) and Bourdieu (1992) assert that it is necessary to break with the taken-for-granted assumption in politics - the assumption that all answers on survey questions have the same meaning and impact - if one is to arrive at a more rigorous scientific interpretation, which does not attribute the dominant but very peculiar way of producing political opinions in the political field to all the respondents who cooperate in a survey.

If opinion surveys are studied from this scientific point of view, it becomes clear that the opinion survey may not be democratic enough. As Champagne (1990) concludes in his study on the functioning of opinion polls in the political field, such surveys only give a voice to the people, in much the same way a ventriloquist gives a voice to his puppets. As most of the questions deal with accepted, legitimate, political issues, opinion surveys do not give citizens a chance to talk about their own problems and have these problems accepted as political problems.[2]

Since the conflicting political and scientific interpretations of survey answers are all too easily confused, and since nearby all studies on attitudes and nonattitudes in the opinion survey were restricted to the political domain, it is necessary to introduce another cultural domain to the present study. Introducing a different domain makes it easier to break with the taken-for-granted political meaning of answers on the opinion survey.

The social distribution of political competence

It is also important to study another cultural domain to gain a better understanding of the social process involved in the formation of attitude structures. The lack of competence to produce political opinions is often attributed to a lack of cognitive capacity inherent in the individual, especially when such competence is strongly related to educational level. However, as both Converse and Bourdieu argued, the development of the competence to produce legitimate opinions on the political field depends on social conditions. As Converse showed, respondents with less education, but who are nevertheless deeply involved in the political field are very well able to express stable and constraint opinions about political issues.

By simultaneously studying the competence to produce legitimate opinions in the political and a different domain, it becomes much easier to see how the particularities of the relationship between the citizen and the political field result in a specific distribution of political competence. Naturally, a respondent who is competent to produce politically legitimate opinions is not necessarily competent to produce legitimate opinions in another domain, and a respondent who is less competent in the political domain is not necessarily less competent in every other cultural domain. By studying both the political and another domain simultaneously from the same perspective, the social processes related to attitude centrality and competence can be studied more precisely.

4.2 The field of medicine

Bourdieu sees the production and consumption of political opinions as only a specific example of the production and consumption of cultural products in general. His theory should lend itself, therefore, for a study of the competence to produce opinions in another cultural domain.[3] From a psychological point of view, the differences in attitude structures described in Chapter 2 are not bound to a specific domain. It seems likely that they will also be found in other domains (Tesser and Shaffer, 1990).

Bourdieu (1977d, 1979, 1993b) made an extensive study of the production and consumption of art products. In his writings on the production of political opinions he often compares the competence to produce political opinions to the competence to produce judgments on art. Each functions as a different form of cultural capital. Although both competences are related to educational capital, the distribution of these competences is not exactly identical. For example: women who occupy more dominated positions in the social space of class positions tend to be more competent in art than men in these positions, whereas the political competence for these women is lower than for men (Bourdieu, 1979).

In the present study the domain of health and illness was chosen as a second domain of research for two reasons. Firstly, the prevailing ideological currents in this domain are rather different and independent from the liberal-conservative principle in politics. Furthermore, the competence to produce opinions about health and illness is likely to be distributed in a different way than the competence to produce political opinions.

The ideological division of the field of medicine

Just like politics, there is a relatively autonomous and specialized field of production of cultural products which is connected to health and illness. This specialized field of professionals will be referred to as the *medical field* or *field of medicine*. In the medical field, specific problems with regard to health and illness become legitimate medical problems, which are defined in specific medical terms. Just as there is a process of politicization of social problems, there is a medicalization of health problems.

On the medical field a struggle can be found between a strongly dominant 'orthodox' medicine, which can be conceived of by and large as the medical science taught at universities, and all kinds of dominated, 'heterodox' medicine, such as acupuncture, homeopathy or spiritual healing, to mention only a few. The ideological principle which plays an important role in the struggle between orthodox and heterodox medicine has little in common with the liberal-conservative principle prevailing in politics[4]. On the one side, the dominant medicine is based on a scientific legitimization, applying rational means to assess the quality of medical practices. This is especially true for prestigious medical specialisms such as cardiology and surgery. Although of course not everything in this dominant medicine is rational[5], the legitimization of its practices at least is based on rational, scientific procedures.

It is difficult to characterize in a few words the broad range of alternative health care strategies opposing this dominant medicine[6]. However, alternative healers and their partisans, who employ a wide range of healing methods, have united themselves and

formulated a heterodox ideology, which is an expression of a common interest in the criticism of university medicine. These partisans criticize dominant medicine for being too rational, and for reducing illness to objective bodily processes and states. Alternative healers claim to be holistic, i.e. to include relationships with psychological and often also cosmological aspects in their belief systems about health and illness. This has led scientific doctors, in turn, to criticize alternative medicine for being unscientific. In their counterattack on alternative medicine they denounce them as superstition, magic or religion (e.g. Van der Smagt, 1988). Although alternative healers are thus portrayed as irrational, the belief systems in alternative medicine might better be named here with the less pejorative term "non-rational" (Shweder, 1984b). Shweder employs this term to describe belief systems which are based on presuppositions that are not subject to rational logic. Like the political belief systems analyzed by Converse, these 'non-rational' belief systems are tied together, not so much by logic as by certain general postulates which serve as a glue to paste together belief elements.

Although the field of medical services is relatively autonomous, it is not completely independent from the political field. The field of medicine and the field of politics both touch on the domain of 'public health'. For example: politics intervenes in the field of medicine by providing a legal basis for certain health services and by regulating the provision and distribution of such services by means of legislation on health insurance. The social processes of recognition and development of alternative medicine are clearly subject to political interventions[7]. On the other hand, medical practice and the medicalization of problems relating to health and illness also have political and social consequences[8].

The social distribution of medical competence

Since the ideological divisions in the medical field are rather different from those in the political field, it is to be expected that there is a special competence on each field to produce legitimate opinions. Political competence will not be related to the competence to produce opinions on the medical field, or *medical competence*. Since the relationship between consumers and producers of cultural goods is quite different on both fields, it is likely that either competence has a different distribution in the public. Unlike politicians, the specialists in the medical field, both orthodox and alternative, are not assumed to represent the public at large. Apart from the number of patients who patronize different medical practitioners, which is a significant factor in the power relations between the currents of medicine, the dynamics in the medical field are less dependent on the opinions of the public. Discussions on patients' rights notwithstanding, the social competence to judge medical practices is generally not attributed to the public at large in a similar way as citizens are supposed to be competent to judge political practices. The relationship between the medical field and the public can be characterized much more as one-directional or 'top-down': it is defined especially in terms of giving health advice to the public and of educating the public. Consequently, the opinions of patients are not expected to follow the

ideological divisions in the medical field like the opinions of citizens are expected to follow the ideological divisions in the political field.[9]

The competence to produce opinions about the field of medicine will be less connected to a socially produced interest than political competence. Although a relationship has been found between the occurrence of specific diseases and the frequency of visits to doctors and to alternative healers on the one side and social class and sex on the other side[10], it can be expected that the interest in medicine will be less associated to people's social position than the interest in politics. Everyone is liable to get ill and to have undesired personal experience with medicine. In developing the competence to produce opinions which are constrained by the ideological standard prevailing in the medical field, personal experiences with doctors and healers will play a major role. It can be expected that patients with extensive personal experience of doctors and healers will develop more central attitudes, which are constrained by the ideological standard prevailing in the medical field[11].

In sum, one might expect that there is a different spread in the public of the competence to produce opinions about medicine than there is of the competence to produce political opinions. A person's personal experience will play an especially important role in the development of central attitudes which are constrained by the ideological standard prevailing on the field of medicine.

4.3 The theoretical perspective of the present study

The following research questions were asked in the introduction: are differences in attitude structures found in both the political and the medical domain, and if such differences in attitude structures are found, does their social distribution in the political domain differ from that in the medical domain? It has become clear in the preceding chapters that these questions touch directly on the implicit assumptions underlying survey research, viz. that everyone is competent to produce opinions and that all answers reflect preexisting attitudes. The present study should therefore be seen as an empirical test of the implicit assumptions of the survey.

Discussion of the theoretical tools

In Chapter 2, some important psychological differences in attitude structures were discussed. Whereas the widespread definition of an attitude as an evaluation of an object closely follows the dominant practice of posing closed agree-disagree questions in surveys, social psychologists have identified some other attributes of attitudes, which were seen as independent of this evaluative continuum. In accordance with the dominant paradigm in current psychology, attitudes are predominantly conceptualized by social psychologists as cognitive representational structures in long-term memory. An important dimension of attitudes, seen in this perspective, is cognitive centrality, which is functional in the relationship between attitudes and behavior, in biased perception and judgment, and in attitude change. On the one extreme of the continuum of cognitive centrality no attitude exists at all. This is also referred to as a nonattitude. The crystallization, accessibility, and

constraint of attitudes were found to be important concomitants of cognitive centrality, which are directly related to the different ways answers are produced by respondents on closed questions in opinion surveys. Another important attribute of cognitive centrality is knowledge, which can also be readily measured in a survey.

Be it within a very different theoretical perspective, Bourdieu also described some important attributes of opinions which closely match the description of the concomitants of cognitive centrality. Political opinions which count as such are based on specific political principles; they are constrained, personal, and easily activated. Bourdieu added, however, that political opinions are detached from everyday experience. Furthermore, Bourdieu shows that the competence to produce these kinds of opinions is socially valued and functions as a form of cultural capital. In the previous section, it was explained that a form of competence similar to political competence exists on the medical field.

Whereas social psychologists have little attention for the social processes involved in attitude centrality, they are central to Bourdieu's theory. On the other hand, the social psychology of attitudes has supplied some measurement procedures that can be used to assess the different aspects of the attitude-nonattitude continuum with more precision than an assessment of "no opinion" answers, which was Bourdieu's main empirical tool.

Design of the present study

In the present study, differences in attitude structures and their social distribution will be studied on the basis of the dominant paradigm of survey research as presented in Chapter 1. After all, it became clear in Chapter 2, that some important differences in cognitive centrality can be studied by means of an opinion survey. Furthermore, a survey was opted for because its scope enables us to study the social distribution of differences in attitude structures. As was explained in the introduction, the laboratory studies prevailing in social psychology are too restricted for this, because they predominantly use college students.

The survey on political and medical attitudes, which will be described in detail in Chapter 5, was constructed in accordance with the guidelines for survey quality discussed in Chapter 1. For this reason, the survey questions were designed in keeping with the dominant paradigm in survey research, in order to measure the private, personal opinions of the respondents.

However, the present study differs from most opinion surveys in its perspective. Whereas in most opinion surveys the implicit assumptions - that everyone is competent to produce opinions and that all answers are arrived at in the same way - are taken for granted and go unchallenged, they are subject to empirical assessment in the present study. Although the implicit postulates are taken for granted in most surveys, survey researchers have not been ignorant of these assumptions. They have dealt with them in three ways.

In the first place, survey researchers did recognize the possibility that not all respondents have opinions on the questions asked. Their advice was, therefore, to provide "no opinion" alternatives, to formulate questions in an easy language, and to run pretests on the interpretability of the questions. Of course, this advice is not always followed in

practice, and even less often in public opinion polling, where time constraints often result in questions that are formulated more directly in the legitimate political language (Bourdieu, 1985). In the present study these guidelines are observed so as to construct a good survey from this point of view.

In the second place, survey researchers have also been aware of the problems in the interpretation of survey answers, as is illustrated by the abundance of studies in the Converse debate. Posing the question of the interpretation of survey answers appears to be restricted to those researchers who are interested in the fundamental question of how respondents arrive at the answers they give. In most studies using opinion surveys these problems are not discussed. Furthermore, most of the studies, in which these problems are recognized, explicitly aimed at improving the survey. However, if not all respondents have attitudes on the questions asked, and if those respondents who do have attitudes differ in their competence to express them in legitimate ways, the survey can only be improved to a limited extent. As was explained in section 2.2, it is impossible to formulate answers that are easily interpretable for all respondents and which are interpreted by all respondents in the same way. Therefore, instead of taking the improvement of the survey as a measurement instrument as the object of study, it is necessary to take the relationship between instrument and respondent as the object of study. Only from this perspective can the implicit assumptions of surveys be studied rigorously.

Thirdly, survey researchers have developed some methods to assess the quality of the answers that are given. However, it became clear in Chapter 2 that the methods to assess the quality of survey answers as described in Chapter 1 should be used in a different way than is normally done. As was explained in Chapter 1, the quality of survey measurements is treated in analogy to the quality of psychological tests. However, unlike in psychological tests, it cannot be assumed that there is always a 'true score' preexisting its measurement. In opinion measurement there is no accepted way to state whether an answer is 'true' or not as in psychological tests. The conceptual and analytical tools of classical test theory described in Chapter 1 should therefore be used in a different way. In accordance with the arguments given in Chapter 2, the reliability coefficients should not be interpreted as an attribute of the measurement instrument, but as an attribute of the answers themselves, which in turn result from the relationship between the respondents and the instrument.

If it is recognized that answers are arrived at in different ways, and if the reliability is interpreted as an attribute of the relationship between an instrument and the respondents, it becomes possible to assess the assumptions implicit in the dominant paradigm of opinion surveys. This is not to say that opinion surveys are worthless if the implicit assumptions are not verified. The analysis of the different ways of producing answers on opinion questions reveals important characteristics of the production principles and their social distribution. If the implicit assumptions are taken as the object of study it becomes possible to develop a more rigorous scientific interpretation of survey responses, which does not take the logocentric way of formulating opinions for granted projecting this on all the respondents who answer survey questions.

4.4 Research hypotheses

On the basis of the studies discussed in the previous chapters it becomes possible to formulate the following hypotheses on the research questions asked in the introduction:

1. Respondents will have attitude structures which differ in cognitive centrality. In the extreme case, where attitudes are not central, some respondents will not have any attitudes preexisting the measurement. Some of the respondents with nonattitudes, who do not feel competent to express opinions about a field or about an issue, will either refuse to participate in the study at all, or answer "no opinion". Respondents who do give agree-disagree answers will employ different ways of producing these answers. In order to assess the reliability of the answers as an attribute of the relationship between respondent and questionnaire, this study will make use of a measurement procedure which enables us to calculate reliability coefficients on the individual level. This measurement procedure, called *magnitude scaling*, will be described in detail in section 5.2. The reliability of the answers calculated at the individual level can be taken as a measure of the crystallization of attitudes, the response latency as a measure of accessibility, and the interrelatedness of the answers as a measure of constraint. These hypotheses about competence, crystallization, accessibility, and constraint apply both to the political and the medical field.
2. Since the differences in crystallization, accessibility, and constraint are all aspects of cognitive centrality, they will be interrelated. They will also be related to the level of knowledge associated with the attitudes, which is a concomitant of cognitive centrality, too. Furthermore, they will be related to attitude competence as measured by "no opinion" answers. It is expected on theoretical grounds that cognitive centrality and competence will be independent from evaluative extremity. These hypotheses apply to both fields.
3. The differences in attitude competence and the cognitive centrality of attitude structures will be related to the degree of involvement in a field. The level of involvement in the political field is indicated mainly by the participation in the field. In the medical field, the level of involvement is indicated mainly by personal experience with medicine. Groups will be constructed according to their level of involvement in both fields. This classification in groups will be validated on each field by comparing the level of self-declared interest and the consumption of information through mass media in each group. On each field it is expected that more involved respondents will have more central attitudes, as indicated by the level of knowledge, competence, crystallization, accessibility and constraint.

4a. On the political field it can be hypothesized that respondents with lower positions in the social space of class positions (as indicated by educational and occupational level) and female respondents will be less competent to produce political opinions. These respondents will be less interested in politics, they will participate in politics less often and they will consume political opinions through the mass media less often. Consequently, they will have less political knowledge, and they will indicate they have an opinion about political questions less often. Their attitudes will be less crystallized, less easily accessible and less constrained.

4b. Assuming that the relationship between consumers and producers of medical practices is different from the parallel relationship on the political domain, it can be hypothesized that the level of interest, personal experience and consumption will not be related to the social position or sex of the respondents. Consequently, differences in cognitive centrality (as measured by knowledge, "no opinion" answers, crystallization, accessibility and constraint) will not be related to the social position and sex of the respondents either.

In order to test these hypotheses, a survey questionnaire was constructed, asking questions on political and medical issues. The construction of this questionnaire, which closely follows the dominant paradigm of questionnaire construction, will be discussed in the next chapter. The recruitment of respondents will also be described in this chapter. In Chapter 6, the results which apply to the hypotheses will be discussed.

5 DESIGN OF THE STUDY AND MEASUREMENT PROCEDURES

In the first section of this chapter, the questionnaire that was used to assess the tenability of the research hypotheses of this study will be described in detail. The questionnaire consists of attitude items, knowledge tests, questions on involvement in each field and on social characteristics of the respondents. The attitude items on each field were constructed in accordance with the paradigm of survey research and can be used to assess the competence and different attributes of cognitive centrality (crystallization, accessibility, and constraint).

The specific measurement procedure used in this study, *magnitude scaling*, will be presented in the second section. In this procedure respondents have to judge the same attitude items twice in slightly different ways in one session: once the respondents are asked to express the evaluative strength of their opinions by putting a number to it, once they are asked to express it in terms of the length of a line drawn. This procedure makes it possible to assess the reliability at the individual level. As the two judgements were made in one session, it was not necessary to obtain reliability coefficients from repeated measurements at different points in time as Converse did. Instead of a test-retest reliability, a coefficient of parallel-test reliability can be calculated at the individual level by comparing the individual's number scores and lines scores.

In order to facilitate measurement of response times as an indicator of attitude accessibility, administration of the questionnaire was computerized. This computerization will be discussed in the third section. Since respondents had to learn how to use the computer and how to express their opinions using numbers and lines, two instruction tasks were used. Section 6.1 will discuss whether these instruction tasks were effective in showing respondents how to use the computer and to express their judgments in keeping with the requirements of the magnitude scaling theory. If respondents use the measurement instrument correctly, it can be concluded that possible differences in their judgments on the attitude items are not caused by problems in the use of the instrument.

In the fourth section of this chapter the field work will be described, including the recruitment of the respondents and the administration of the questionnaires. Respondents between 40 and 55 years old were recruited, because this age group was expected to show a particularly high degree of variance in their personal experience with health care and in their involvement in the political field. College students, who are predominantly used as subjects in social psychological research, cannot be expected to show as much variance in personal experience with health and illness.

The respondents who participated in the study will be described in the fifth section, as well as the reasons why people refused to cooperate in the study. It will be discussed how the recruitment procedure and the nonresponse might influence the level of competence and centrality found in this study.

Pilot studies

Before the survey described in this book was carried out, the questionnaire and measurement methods were tested in three pilot studies. The main objective of *pilot study 1* (Westerhof, 1989a) was to check whether any problems were likely to occur in the magnitude scaling procedure. The study also provided information on the interpretability of the attitude items and some indications of the social distribution of competence and centrality on both fields. In *pilot study 2* (Westerhof, 1989b) the effects of the computerization of the attitude questionnaire were assessed. Furthermore, study 2 was carried out to fine-tune the instruction task for the magnitude scaling procedure (see also appendix 4). *Pilot study 3* (Westerhof, 1990) was carried out in order to obtain information on the psychometric qualities of the attitude and the knowledge questions. The conclusions of these pilot studies will be reported in this chapter, in as much as they relate to the specific methods used.

5.1 The construction of the attitude items

The paradigm of survey research prescribes that the attitude questions should meet three sets of requirements:
1. the attitude items on each field should deal with issues that are important on that field;
2. the items should be easy to interpret for the respondents;
3. the items should meet certain psychometric requirements.

The selection of the items on both fields

On the political field, the items used by Converse (1964) were translated from English into Dutch. In order to select those issues that are relevant to the political field, the parliamentary election programs of the three major Dutch parties (PvdA, CDA and VVD; the programs can be found in Lipschits, 1986) were examined. An item was only included if there was disagreement between the programs on that issue. Some items were included in their original formulation, other items were reformulated to fit the Dutch situation, and items which had no relevance in the Dutch situation were left out. Eventually, five of Converse's items were adopted. Five additional items were formulated on the basis of the election programs. As in the case of the five items adopted from Converse, issues that had given rise to protracted political controversy were preferred to issues that had only emerged relatively recently or were restricted to a certain time period.

On the *field of medicine*, ready-made items were not available[1]. Items were taken from the public debate about the differences between alternative and orthodox medicine which was prompted by the publication of a report by a political committee on alternative medicine (Muntendam, 1981) and also from publications by alternative healers. Initially, 14 items were constructed. The exact procedure of formulation of the items is described in Westerhof (1990).

Formulation of the items

The items were formulated according to the "enduring counsel for simplicity" (J.Converse and Schuman, 1987) to be found in textbooks on survey research, so that they would be as easy to interpret as possible[2]. Technical and abstract terms were avoided. Precautions were taken to avoid ambiguities, and to present the items as neutrally as possible, in compliance with the rules to avoid response effects (section 1.2). The interpretability of the items for the respondents was checked in pilot study 1 by asking respondents to comment freely on the questions that were asked.

Psychometric properties of the items

Pilot study 3 was designed to provide information on the psychometric quality of the items. In accordance with the prevailing paradigm of survey research the psychometric coefficients were not interpreted in this pilot study as characteristics of the relationship between questions and respondents, but as characteristics of the items. The idea was to construct reliable and valid items which would form a rather homogeneous scale. Ten items on each field were presented to a rather heterogeneous group of students of a school for adult education in pilot study 3. In the end, 7 items on each field were selected to be used in the final study on the basis of the following criteria: the number of "no opinion" answers should be low; the variance in responses should be high; the mean scores of the items should vary considerably across the items; factor loading in a factor analysis with a 1-factor solution should be high; validity, as measured by the relationship with party preference or visits to alternative healers, should be high (Westerhof, 1990). On both fields, the 7 items that were selected form a rather homogeneous scale in pilot study 3.[3]

The attitude items

The items that resulted from this construction process were used in the present study (see table 5.1 (page 64); the Dutch formulations can be found in appendix 2). On each field the items deal with important issues which are widely debated in the field. By limiting the selection to items with the smallest proportion of "no opinion" answers, however, the issues in this study are more widely known in the public at large than other issues which may be equally important in the field.

Furthermore, the items were translated into a more simple and neutral language, which is not the dominant language in the field. This makes it easier for respondents to answer the questions, even if they are less competent to recognize the specific ideological aspect of the issue or to produce opinions in the legitimate language of the field. It will therefore make it easier for respondents to give reliable answers. They will also need less time to respond. Since the items that were used form a rather homogeneous one-dimensional scale, it seems likely that more constrained answers will be found.

In sum, the construction process of the attitude items minimizes the differences in attitude competence and cognitive centrality: the study has a conservative design.

Table 5.1 Attitude items[1]

nr.	item	short description[2]
Items on the field of politics		
1	The unemployed usually have themselves to blame for not having a job. [3]	unemployment
2	If cities and towns do not have enough money to pay for social security, the government in The Hague ought to give them the money they need. [3]	social security
3	The government should leave things like health care and housing for private companies and institutions to handle. [3]	privatization
4	The Netherlands should give more economic help to the countries of the Third World even if those countries cannot pay it back. [3]	development aid
5	South Africa should resolve the problem of apartheid by itself. The Netherlands had better not become involved in this. [3]	apartheid
6	The income differences between the employed and unemployed should become greater.	income differences
7	The government should get a firmer grasp on banks and multinationals.	multinationals
Items on the field of medicines		
11	Some people have the gift to cure other people's complaints without knowing it themselves.	gift of healing
12	Every disease contains a message about ourselves and the way we live; you can only be cured if someone helps you understand this message.	message of illness
13	One can only learn to cure people by a thorough study at a university.	study at university
14	Health and illness always concern things which accepted science will never understand.	science negative
15	Alternative medical care is only recommended if the normal medical science cannot accomplish anything.	visit alternative healer
16	Therapies may only be used if they have been scientifically tested.	scientific proof
17	Illness and diseases can be related to unsolved problems from previous lives.	reincarnation

[1] *note*: The original Dutch formulations can be found in appendix 2.
[2] *note*: The short description in the third column is used in other tables to refer to the items.
[3] *note*: Items adopted from Converse (1964).

5.2 Magnitude scaling

The method used in this study to measure the attitudes of the respondents will be referred to as '*magnitude scaling*' (Lodge, 1981a, 1981b). This method was chosen because respondents judge the same items twice in somewhat different ways in only one session. This procedure makes it possible to calculate parallel-test reliability coefficients on an individual level for the seven items on each field. Furthermore, the instruction tasks that are used are a means of checking whether all the respondents have made judgements in an accurate way.

The theory of magnitude scaling

Magnitude scaling is only one of the many different measurement techniques that have been used to measure attitudes (for a review see Dawes, 1972; Dawes and Smith 1985). The magnitude scaling approach is characterized by Dawes as one of the magnitude techniques (like Thurstone's technique of comparative judgment). In these techniques respondents are asked to judge stimuli or items on a crucial property specified by the researcher. They would, for instance, have to judge the seriousness of different crimes or the acceptability of attitude items. The resulting measurement scale is meant to represent the order and magnitude of the stimuli with respect to that property. Other measurement techniques (like proximity techniques) do not use a specific property to be judged, but can be used to assess the attributes of an attitude which are important for the respondents.

Among the magnitude techniques, the magnitude scaling procedure can be further characterized as a direct estimation technique. Dawes (1972, p.20) mentions the following steps of direct estimation techniques: "the investigator decides which property of a particular set of stimuli he is interested in studying; he specifies this property to his subjects and then he presents them with the stimuli; on the basis of this property, subjects assign numbers to the stimuli. The location of the stimuli on the measurement scale is determined directly from these numbers." (Dawes, 1972, p.20). The direct estimation techniques differ from other magnitude techniques in that respondents are assumed to be capable of giving direct numerical ratings of the stimuli. In the magnitude scaling procedure people are asked to give ratio judgements. Ratio judgements should result in a scale with ratio consistency.

The magnitude scaling approach originated in psychophysics. Stevens has been an advocate of this technique, not only in psychophysics (1975), but also in the field of attitude measurement (1972). As a psychophysicist, he was interested in the relationship between physical stimuli and their subjective impression. He tried to measure subjective impressions using the magnitude scaling approach. In the original psychophysical procedure, Stevens asked his respondents to estimate the magnitude of different sensory modalities (like loudness of sounds, brightness of light). He first showed his subjects a standard stimulus (e.g. a light of a certain brightness) and asked them to give a number to it. For the other stimuli to be judged Stevens instructed his subjects to give ratio scores: if a stimulus looks twice as bright (as long, as loud, etc.) as a standard, a figure twice as high as the figure given to the standard should be given to the stimulus; if a stimulus looks 10 times as bright a figure 10 times as high should be given.

Proceeding from this direct ratio estimation procedure, he formulated the psychophysical *power law*. In this power law the subjective magnitude (as expressed in the response) and the magnitude of the stimulus are expressed as

$$R = k\, S^n \qquad (5.1)$$

where R is the response magnitude, S is the stimulus magnitude, n is the exponent of the power function and k is a constant. In words, this function can be expressed as: equal stimulus ratios produce equal subjective ratios.

Taking logarithms produces a linear relationship:

$$\log R = \log k + n \log S \quad (5.2)$$

This power law, which is seen as the base of Stevens' New Psychophysics, differs from the law of Fechner which was commonly accepted before Stevens' work using direct ratio estimations. Fechner's law, formulated on the basis of indirect measurement procedures on 'just noticeable differences' in magnitude, describes the relationship between the magnitude of the stimulus and the subjectively experienced magnitude (or response) as a logarithmic function:

$$R = k \log S \quad (5.3)$$

The method of just noticeable differences and other indirect methods like category scaling did not produce linear relationships on log-log axes and are typically related to direct ratio estimation by concave or S-shaped relationships. Stevens took the direct estimation of ratios for the superior measurement technique. He asserted that the exponent n for different sensory modalities like loudness, brightness and handgrip is found to be rather constant in different experiments and can thus be taken as a characteristic of the modality that is being judged. The judgements of the respondents are assumed to be more precise if they are made on a continuous scale instead of a categorical scale.

A so-called *cross-modality match* is presented by Stevens as a validation of this method. It is found that whenever the responses to a certain modality, e.g. loudness are not given in numbers, but in another modality, e.g. handgrip pressure, response and stimulus are once again related according to the power law. The exponent n that characterizes the relationship can be predicted as the ratio of the characteristic exponents n_1 and n_2 of the modality 1 and 2 used: $n_{1->2} = n_1/n_2$. In fact, this prediction was verified in experiments.

Although the power law, the characteristic exponents, and the cross-modality match were first introduced in the domain of psychophysics, they soon came to be used in the domain of social constructs. For example, number estimates and other response modalities came to be used to measure the prestige of occupations, the social status according to income level, or the seriousness of offenses (Lodge, 1981a; Wegener, 1982).

Lodge (1981a, 1981b) provides a detailed description of how to carry out research on social items using the magnitude scaling approach. He advises to instruct respondents how to give magnitude judgements in an *instruction task*. Furthermore, since the actual values that can be assigned to physical stimuli like brightness, handgrip, or loudness, are unknown for social items, Lodge advises to use two response modalities. The responses given in both modalities should be related according to the cross-modality paradigm. The power law should hold with an exponent that equals the ratio of the exponents of both modalities used:

$$\log (R_{\text{modality 1}}) = \log (k) + (n_1/n_2) \log (R_{\text{modality 2}}) \quad (5.4)$$

Lodge (1981a) describes how this relationship is actually found for a variety of attitudes, including opinions on policy issues. Stevens (1972) and Dawson (1982) describe that very similar results are found both in attitude and sensory measurement. Saris et al. (1977) have successfully used the procedure in large-scale survey research.

Some criticisms of magnitude scaling

Magnitude scaling has not gone uncriticized. Stevens tends to regard all inconsistency in the ratio judgements as random error (Dawes, 1972), except for the regression effect, where extremely large stimuli are underestimated and extremely small stimuli are overestimated. However, Poulton (1989) argues that there are systematic biases in quantifying judgements, especially in the ratio judgements required in Stevens' method, when applied to modalities that cannot be expressed by familiar physical units such as centimeters for length. Poulton argues that the power law, the exponent of the predicted size and the crossmodal matches consistent with numerical magnitude judgements are a specific product of the measurement technique used by Stevens.

Others have also argued that the power function and the cross-modality match are not a sufficient validity check (e.g. N. Anderson, 1981). It has been found that the exponents of the modalities are not as invariant as Stevens claimed. They fluctuate, for example, with so-called contextual effects like the range of stimuli presented, or the standard used (Marks, 1982; Saris et al., 1987). Furthermore, they show many differences between individual respondents (Saris, 1988).

The non-linear relationship between direct ratio estimation judgements and category judgements cannot be taken as evidence that the former are intrinsically better, as Stevens did (Birnbaum, 1982). Instead, Parducci (1982, p.89) argues that category ratings are better since they correspond to the way value judgements are expressed in everyday life: "we describe a book or movie as 'extremely enjoyable' or perhaps as 'not very good'. Even the most devoted advocate of magnitude estimation would hesitate to advise a friend, except perhaps in jest, that one movie is four times as enjoyable as another"[4].

In sum, the major problems in the debate on magnitude scaling are whether respondents give ratio scores as expected, whether the judgements represent the 'actual' subjective impression of subjects and whether they represent these 'actual' subjective impressions better than category ratings or other scaling methods. However, no conclusive evidence has been produced to solve these problems. In view of the advantage that the reliability can be calculated on an individual level for responses obtained in only one session the magnitude scaling procedure was used here, in spite of the problems mentioned above.

Since the responses obtained by direct ratio estimation should follow the power law provided the right instructions are given, the instructions used in this study will be described in detail in the remainder of this section and the correspondence between the responses obtained and the power law will be checked in section 6.1. Appendix 4 addresses the problem of whether respondents actually give ratio responses. It is concluded that not all respondents give ratio scores and that this may affect the regression coefficient in the power law.

Magnitude scaling instructions of the present study

Many different procedures can be found in different studies on magnitude scaling. For example, sometimes a number is assigned to the standard stimulus, and sometimes the standard is presented together with each stimulus to be judged. The differences in

procedure are found to be related to specific biases in the judgements (Poulton, 1989) and to the magnitude of the exponent of the power function (Marks, 1974). The procedure used in this study is exactly the same as the one described by Lodge (1981a) and follows Hamblin's rules of thumb (1974). This procedure tries to optimize the results of magnitude scaling. Furthermore, some evidence from the pilot studies 1 and 2 was used in the construction of the exact procedure presented here (see Westerhof, 1989a, 1989b, and appendix 4 on some differences in the instructions used in the pilot studies).

Two instruction tasks are used to show respondents how to give ratio judgments. In the first exercise, the *metric task*, respondents had to give numbers to line-lengths (*number estimation modality*) and to draw lines to numbers (*line drawing modality*): as many times longer the line as compared with a reference line, as many times higher the number as compared with the number that was given to the reference number (and vice versa for line drawing). In the second exercise, the *sound task*[5], respondents had to give lines and numbers to descriptions of sounds, like "whispering", "a heavy truck", or "a jet plane flying low" to be compared to "a crowded pub": as many times louder the sound compared to a "crowded pub", as many times longer the line (or higher the number) compared to the line (or number) given to "a crowded pub". The exact instructions for these tasks can be found in appendix 1. The original Dutch formulations can be found in appendix 2.

Having done the two exercises in the metric and sound task, respondents were asked to give lines and numbers to the attitude items in the attitude task. The procedure of expressing judgements in the attitude task is exactly the same as that for the sound task. The order of line drawing and number estimation was random. The instructions for the number estimation modality on the attitude task are presented below. The instructions for the line drawing modality on the attitude task are identical, only 'lines' should be substituted for 'numbers' and vice versa. The following instructions are read to the respondent by the interviewer:

> "You are finished with the exercises now. Some statements on politics and on health and illness will be presented to you. These statements are mixed. You will see one statement at a time. Of course, not everyone has thought about all statements. It is possible that you do not have an opinion about a statement. You can indicate that. If you do have an opinion, then we would like you to give it. Again, numbers and lines will be used. We do not compare opinions to "a crowded pub", but to an "in between" opinion. By this, I mean an opinion such as: "I do not agree with the statement, but I do not disagree with it either". First, you give a number to "in between". That is the reference number. Then you give your *own* opinion. First, you indicate whether you agree or disagree with the statement. Then you give a larger number to indicate how strongly you feel about this issue. As many times stronger your opinion, as many times larger the number you give. Whether you agree or disagree, the number you give for your own opinion is always larger than the one you gave to "in between"."

The attitude items are presented in a random order to minimize question order effects. The items on politics and on medicine are not presented separately. Respondents are presented one statement at a time. They are first asked to give a number or line for an opinion "in between":

> "Give a number to the opinion "in between"."

Then they are asked to indicate whether they agree or disagree with the statement or whether they have not thought much about it:

"Do you Agree, or Disagree with this statement, or Haven't you thought much about it?"

According to the studies of Schuman and Presser (1981) and Bishop et al. (1983), adding the clause "or haven't you thought much about it" is an effective means of filtering out respondents who do not have an opinion. This is especially true when it is stressed that not having an opinion is a legitimate option. The initial instructions reproduced above show that this was done in the present study. Furthermore, compared to "no opinion", or "don't know" this clause seems to represent nicely what is meant by cognitive centrality as the amount of 'mental time' spent thinking about an object (Converse, 1970).

If respondents indicate that they *haven't thought much about* the statement, the next item is presented. If respondents indicate that they *"agree"* with the statement they are asked:

"Give a larger number to indicate how strongly you agree with the statement"

If respondents indicate to *"disagree"* with the statement they are asked[6]:

"Give a larger number to indicate how strongly you disagree with the statement"

After the respondents indicated the evaluative strength of their own opinion, the next statement was presented. Respondents were asked to give a new line or number to the opinion "in between" for each statement. After all the statements were judged using one modality, the same statements had to be judged again in the other modality.

5.3 Computerized magnitude scaling

The administration of the questionnaire was computerized for two reasons. First, computerization enabled us to measure the response time to each single item. The response time can be used to measure attitude accessibility (Fazio, 1990b). In the present study the response time was calculated as the time between the moment a new attitude item appeared on the screen and the moment the next item appeared on the screen after a respondent had entered his own judgement. Therefore, the response time is attenuated both by the time necessary to read the item and the time necessary to operate the computer in order to give the answer[7]. In section 6.2 the interpretation of the response time as a measure of attitude accessibility will be discussed further.

Second, computerization makes it possible to check immediately whether a respondent's answers on the instruction tasks follow the power law. If the correlation between line and number scores on the metric or sound task was below 0.70 (explained variance less than 50%), the same task was presented again. All respondents obtained correlations of over 0.70 after a second trial, so that it can be safely assumed that all respondents were able to use the instrument in an appropriate way before they went on to judge the attitude items.

In addition to the consistency check in the instruction tasks and the measurement of response times, computerization has certain advantages over a paper-and-pencil version which heighten the quality of the data obtained (see also Saris, 1991):

1. there are no mistakes in data entry (provided the program is correct!), which is particularly advantageous for line drawing responses;
2. computerization saves the researcher time (especially for line drawing responses), because data entry is carried out automatically;
3. randomization of items and response modalities can be easily achieved;
4. the correctness of responses can be checked by the program, so that incorrect responses cannot enter the data file;
5. respondents cannot skip a question by mistake.

To simplify the use of the computer all the keys on the keyboard that could be used were marked. Typing any other key had no effect. All mistakes could be corrected. Subjects could return to previous items if they wanted to. A line could be drawn by pushing a button. Each push on the button produced a line of 3 pixels (approximately 1 mm.). To save time, subjects could also use a button to produce a line one third of the screen width. A line could be shortened by the same lengths (3 pixels or one third of the screen, respectively).

Since computerized and paper-and-pencil versions of questionnaires may produce differences in responses[8], pilot study 2 (Westerhof, 1989b) was especially designed to assess the effects of computerization on the way people give their answers. Comparable groups of respondents, who were recruited in a lower-class neighborhood, were presented either a paper-and-pencil version or an equivalent computerized version of the same questionnaire. It was found that, although some uneasiness with computers was encountered especially among older respondents and among women, this was short-lived. After the instruction tasks, respondents accurately used the computer to give answers to the attitude items. The same proportions in both groups found the tasks difficult, or unpleasant. Both versions appeared to match the power law well. While all respondents within the computer group gave adequate answers, those who had had some prior experience with computers performed slightly better. Since the differences were found to be so slight and performance on the computerized version was adequate, it was concluded that the computerized version could be used without problems.

5.4 The items on social position, involvement and knowledge

Next to the attitude questions some questions were asked about the social characteristics of respondents, their involvement in the two fields, and their knowledge about both fields. The interviewers made some observations on the respondent's performance in dealing with the questionnaire. An English translation of the items can be found in appendix 3.

Information on the *social characteristics* was obtained using the standard questions employed in survey research. These were sex, age, education, occupation, place of residence and civil status.

Different indicators of *involvement* in the field were used. Respondents were asked whether they were *interested* in the issues addressed in the questionnaire. Respondents were also asked about their *consumption habits* (reading or watching TV about these issues). To assess their *participation* on each field, respondents were asked whether they took part in

discussions about the domain with acquaintances. Furthermore, on the political field, they were asked whether they had a preference for a party and if so, for which party; whether they had voted in the last elections; whether they were an (active) member of a party or a union; and whether they participated in political demonstrations. On the medical field respondents were asked if they were an (active) member of a union of patients. They were asked a further question about their personal experience of serious illness. This last question was open-ended, with a view to giving the respondents the chance to tell as much as they wanted, and to do justice to their experiences.

On the political field as well as on the field of medicine, there were *knowledge* tests. On both fields questions were asked as to who (which party or which healer) had made certain statements, the *ideology test*. This test is meant to measure whether respondents have knowledge about the ideological positions taken in the field[9]. There were also tests on the knowledge of participants in the field. On the political field there was a test on the knowledge of political parties, the *party test* (taken from De Bruyn and Foppen (1974)), and a test on the knowledge of the name, party and political function of 5 politicians, *the politician test* (a revised version of Irwin, Verhoef and Wiebrens (1977)). On the field of medicine there was a multiple choice test on the names of regular specialists and alternative healers, the *name test* (the definitions were taken from P. Van Dijk (1984) and Rens and Van Aken (1984) and reformulated to be used in a multiple choice format). On the field of medicine there was a test on knowledge of concepts, the *concept test* (the definitions were taken from P. Van Dijk (1984), Elseviers Medische Termen Gids (1981), and Van Dale (1984)). All knowledge test were pretested in pilot studies 1 and 3.

Some observations (taken from Irwin et al., 1977) were made by the interviewers: on the presence of *disturbing influences*; on the way respondents filled out the questionnaire; and on previous *computer experience*.

5.5 Field work

Recruitment

Three procedures were used to recruit respondents. First, a letter was sent to 219 inhabitants of Nijmegen, between 40 and 55 years of age, who were randomly chosen from the population register of the city. The letter announced that the researcher was coming by to ask for their participation in an opinion poll. 104 respondents participated in the survey (47%). In two cases the administration of the questionnaire was not complete, so that 102 respondents are incorporated in the study. These respondents will be referred to as the *city sample* below.

To find some respondents who hold a position in the political field, a letter was sent to the secretaries of the three major parties (PvdA, CDA, VVD) and of the two major trade unions (FNV, CNV) in Nijmegen. They were asked to contact people in their organization who were actively involved in it. In order to protect the privacy of their members, the secretaries of the PvdA and the CDA sent letters to active party members. They were asked to volunteer to participate by sending in a reply letter with their name and address. The

secretaries of the other organizations asked active members during meetings if they wanted to participate in the study. The sample of 33 respondents thus recruited is called the *politically sophisticated sample.*

To find respondents who were sophisticated in the field of medicine was more difficult[10]. Two alternative healers were asked to contact patients who might like to volunteer in this study. Some paranormal healers who were contacted refused to ask their patients to cooperate. An acupuncturist supplied the names and addresses of eight of his patients who would be willing to cooperate in the study. One of the patients of the acupuncturist brought on two more respondents. The same respondent also asked a paranormal healer to provide two more addresses. Thus, only 12 sophisticated respondents were recruited: the *sophisticated sample in medicine*[11].

Recruitment strategy

After the respondents from the city sample had received the letter the researcher went by to present himself as a researcher working at the University of Nijmegen[12]. If respondents were not at home, two return visits were made. Initially, people were told little about the questionnaire and the way the questions were presented. More information was given on request. If people refused to cooperate, the researcher tried to persuade them that it was necessary to talk to as many people as possible. If they said they did not have the time, it was argued that the interview could be held at some other time. If they said they were not interested or did not know anything about the subject, it was replied that "it should not always be the people who are interested or know everything, who cooperate in surveys". Thus, an attempt was made to ascribe as much competence as possible to the respondents. To avoid negative reactions to the use of the computer (see also the section on nonresponse below), "a new method to ask people about their experience" was mentioned.

Administration of the questionnaire

Appointments were made with those respondents who were willing to cooperate in the study. Almost all interviews took place at the home of the respondents. A few interviews took place at the respondent's place of work. By using a portable computer (Olivetti M15) the computerized survey interviews could be conducted at the homes of the respondents.

One male and two female *research assistants* helped the researcher in conducting the interviews. The interviewers were about 25 years old. They had followed an intensive interview training course. They were instructed carefully about what was expected of them and of the respondents. All interviewers filled out the questionnaire themselves before conducting any interviews. The interviewers were also acquainted with the computer programme used.

The interviewers read the magnitude scaling instructions to the respondents. The respondents typed their answers themselves, on the keyboard of the computer. If any problems occurred, the interviewers assisted the respondents in the interpretation of the instructions and the operation of the computer. Respondents also filled out the multiple

choice knowledge tests themselves, using paper and pencil. The other questions were read to the respondents by the interviewer.

5.6 Respondents

Nonresponse

In this section some differences in response rate corresponding to social characteristics of the respondents will be discussed. Since no characteristics of the sample and the population from which it was drawn were known except for sex, two indirect indicators were constructed on the basis of the characteristics of different neighborhoods as they could be found in official statistics of the city of Nijmegen[13].

Firstly, neighborhoods were classified according to the level of education. Those neighborhoods where over 50% of the labour force (employed and unemployed) had fewer than 12 years of formal education are considered neighborhoods with *lower educational level*. Those where less than half had fewer than 12 years of formal education are considered neighborhoods with *higher educational level.*

Secondly, the neighborhoods were classified according to the mean annual income for the employed between 25 and 65 years old: less than 20,000 guilders (*lower income*), between 20,000 and 25,000 guilders (*middle income*) and higher than 25,000 guilders (*higher income*).

The response rates according to the respondents' sex and to the educational and income level of neighborhoods in which they lived can be found in table 5.2. Unlike in other studies (see chapter 1, Bourdieu, 1979) there is no difference in response rate according to sex of the respondents or educational level of the neighborhoods. The response rate does rise with the mean annual income in the neighborhoods, a finding which is in conformity with other studies.

Nonresponse and competence

The reasons for nonresponse can enhance our understanding of the dynamics leading to cooperation or refusal. In table 5.3 these reasons are classified in 6 categories. The first two categories show the reasons why respondents could not be contacted: either the address was not right or the respondents were not found at home three times. The other reasons were those given by the individuals themselves. Some of the persons we spoke to said they had "no time". Others said "no interest" or just "no!" without offering any reasons. Still others said they had participated in surveys before; some of them complained that they had never received any feedback about the results of the survey ('other survey')[14].

As can be seen in table 5.3, men and respondents living in neighborhoods with higher income levels were not at home more often than others. This may be related to the fact that men have jobs outside their own house more often than women. As there is a higher degree of unemployment in the lower income levels (Gemeente Nijmegen, 1989) this may have caused the difference according to income level of the neighborhood.

Table 5.2 Response rates according to sex
and to social characteristics of the neighborhoods (city sample)

	sex		educational level of neighborhood		income level of neighborhood			total
column %	male	female	low	high	low	middle	high	
N	103	116	105	114	39	113	67	219
response	47	48	46	49	41	47	52	47
nonresponse	53	52	54	51	59	53	48	53

Table 5.3 Reasons nonresponse according to sex
and to social characteristics of the neighborhoods (city sample)

	sex		educational level of neighborhood		income level of neighborhood			total
column %	male	female	low	high	low	middle	high	
N	55	60	57	58	23	60	32	115
not at home	15	6	10	12	8	10	14	11
address unknown	9	10	5	14	17	8	6	9
no!	26	37	34	29	29	34	29	32
no time	24	23	29	17	13	26	26	23
other survey	17	11	11	17	17	13	14	14
no interest	9	13	11	10	17	10	11	10

The address is unknown a little more often in both neighborhoods with a lower educational level and neighborhoods with a higher average income[15]. This is probably caused by the fact that recruitment was carried out one neighborhood after the other. Since the field work took about one year, it is likely that there was a higher number of people who had moved to another address in neighborhoods where respondents were recruited later on.

The reasons people gave for not participating can give an indication of self-ascribed social competence. The statement that one is not interested is taken by Bourdieu (1979) as an important indicator of a lack of self-ascribed social competence. If individuals say they have cooperated in a survey before or have no time, it is clear that they do not acknowledge to feel incompetent. Moreover, by saying he has cooperated in a survey before, a person indicates that he may have felt competent to cooperate in a survey before. By just saying "no!" a person neither admits nor denies that he is incompetent.

Women say "no interest" or "no!" more often than men, whereas more men than women say they have cooperated in a survey before. These findings indicate that men feel more competent than women.

Respondents from neighborhoods with a lower educational level say "no!" somewhat more often than respondents living in neighborhoods with higher educational levels. If a reason is specified, respondents from lower education neighborhoods say they have "no time" more often, but respondents from higher education neighborhoods say they cooperated in another survey more often. Since the second reason is a stronger claim to competence than the first, these findings indicate that respondents living in neighborhoods with lower educational levels feel somewhat less competent, although the differences are not so clear as those between men and women.

Respondents living in the neighborhoods with the lower income level acknowledge they are not interested more often. Furthermore, they specify a reason less often than the other respondents. However, somewhat contradictorily, they also say they have cooperated in a survey before more often. Thus, respondents living in lower income neighborhoods seem to feel somewhat less competent, which is also expressed by their higher level of nonresponse.

Some observations made during recruitment both in the pilot studies and in the present study complete the sketch of nonresponse. In pilot study 1 a home-to-home canvass was carried out in lower class neighborhoods. People were asked to participate in a survey on *politics*. They often refused categorically, claiming that they were not competent to judge politics. They said things like "I don't know anything about it", "it's too complicated", "go to someone else who knows more about it" and "just leave it to the politicians in The Hague". This lack of competence is also found among the women who said that their husbands should be interviewed, since they knew more about politics. No men referred to their wives as being more competent.

In pilot study 1 a group of five people, three women and two men, was asked on the street to participate in the study survey. They looked at each other, laughed and shrugged their shoulders. They looked rather startled and uneasy. They reacted to the word politics in particular, claiming that they did not know anything about it and that we should ask someone else. They kept saying that it was none of their business. They told us that it was no use trying in that street, as none of their neighbors would cooperate. There was only one house - a man pointed it out - in which a student lived who would certainly cooperate (and, indeed, he did!), as he was interested in politics.[16]

These findings on self-ascribed competence correspond to those among the respondents who were active in the political field. While it is not known how people reacted when they were asked to participate, due to the way in which active members of parties and unions were recruited, it can be seen that those who volunteered to participate in the study are more often men than women and more often better educated (see table 5.2).

A lack of self-ascribed competence was not encountered on the field of *medicine*. Here, people seemed to be more confident about their opinions. However, when personal experience with serious illness was too intimate and emotionally charged, people sometimes refused to discuss it with a stranger. The recruitment of sophisticated respondents in the field of medicine shows that those who volunteered are more often women than men (table 5.4). Whether women feel in general more competent than men when talking about health and illness is not certain.

A lack of competence was also found when people were told that the survey was to be conducted by means of a *computer*. Many people in the working-class neighborhoods in pilot study 2 said that they did not know how to use a computer. A second group of five people (three men and two women) were asked on the street if they wanted to fill out the questionnaire by computer. They all said that a computer was "nothing for them" and that they did not want to learn how to use it. They gave two addresses of men who enjoyed working with computers and were very good at it. For this reason the written introduction did not mention the fact that the survey would eventually be carried out with a computer.

Apart from the lack of competence in politics and computers, which was especially encountered in the working-class neighborhoods in pilot studies 1 and 2, and more often among women than among men, and the reactions to the field of medicine, in which a lack of self-ascribed competence was less apparent, there were also different reactions with regard to the fact that the researcher comes from the *university*. Some distrust and unfamiliarity was observed especially in the lower-class neighborhoods: some people said they were not interested or just closed the door. Most people thought that the interviewer was a student. As it is difficult to explain the ambivalent position of a research assistant, a graduate student at the Dutch universities, this was usually not corrected. In fact, people seemed more willing to cooperate when they had children who were students themselves.

In sum, although the findings and observations made should be interpreted with caution, it is found that the respondents who participated in the survey are not exactly representative of the population in Nijmegen between 40 and 55 years of age. Especially people living in lower income neighborhoods refused to cooperate. They are also the people who feel somewhat less competent to cooperate in a survey, as is indicated by the reasons for their refusal. Respondents from lower education neighborhoods also appeared to be somewhat less competent to cooperate. Respondents from lower class neighborhoods (with both a lower educational and a lower income level) also feel less competent in politics and in using computers, and distrust universities. Furthermore, women feel less competent, especially on the field of politics. On the field of medicine a first indication was found that self-ascribed competence is indeed more widespread than on the field of politics, as was argued in chapter 4.

It can be concluded that the respondents who were willing to participate in the survey are likely to be closer in social position to the researcher. Furthermore, they will be somewhat more interested in politics than the total population. Therefore, they will most likely be more competent and politics will be more central for them. On the political field at least, this will reduce the probability of finding differences in competence and centrality between respondents.

Characteristics of the samples

Some relevant social characteristics of the respondents who agreed to cooperate can be found in table 5.4. Almost all respondents live in Nijmegen, a city of 150,000 inhabitants. The sophisticated respondents on the medical field were recruited in villages near Nijmegen. Except for a few respondents in the sophisticated samples, all respondents were between 40 and 55 years of age. Most respondents were married. The sex distribution is about even in the city sample. More men than women are found in the politically sophisticated sample, whereas in the sophisticated sample on the medical field almost all respondents are women. Respondents in the politically sophisticated sample have a somewhat higher educational and occupational level than the city sample. In the medical sample the lower general secondary educational level, the intermediate vocational level, and the middle-level employees are somewhat overrepresented in comparison with the city

Table 5.4 Characteristics of the samples

column %	city sample	sophisticated samples politics	medicine
time period of interviewing		October 1991 - October 1992	
N	102[1]	33	12
education [2]			
primary school	16	9	8
lower general secondary	20	21	33
pre-university	9	6	0
lower vocational	20	18	25
intermediate vocational	7	3	17
higher vocational	8	27	17
university	21	15	0
occupation			
unskilled labour	8	6	8
skilled labour	19	18	17
lower employees	28	9	33
small tradesmen	2	6	8
middle employees	14	30	25
higher occupations	25	30	8
not classifiable[3]	4	0	0
sex			
male	48	70	8
female	52	30	92
civil status			
married	87	80	90
unmarried	13	20	10
age			
mean	48	49	43
range	40-55	36-62	32-61
residence			
Nijmegen	100	94	0
elsewhere	0	6	100

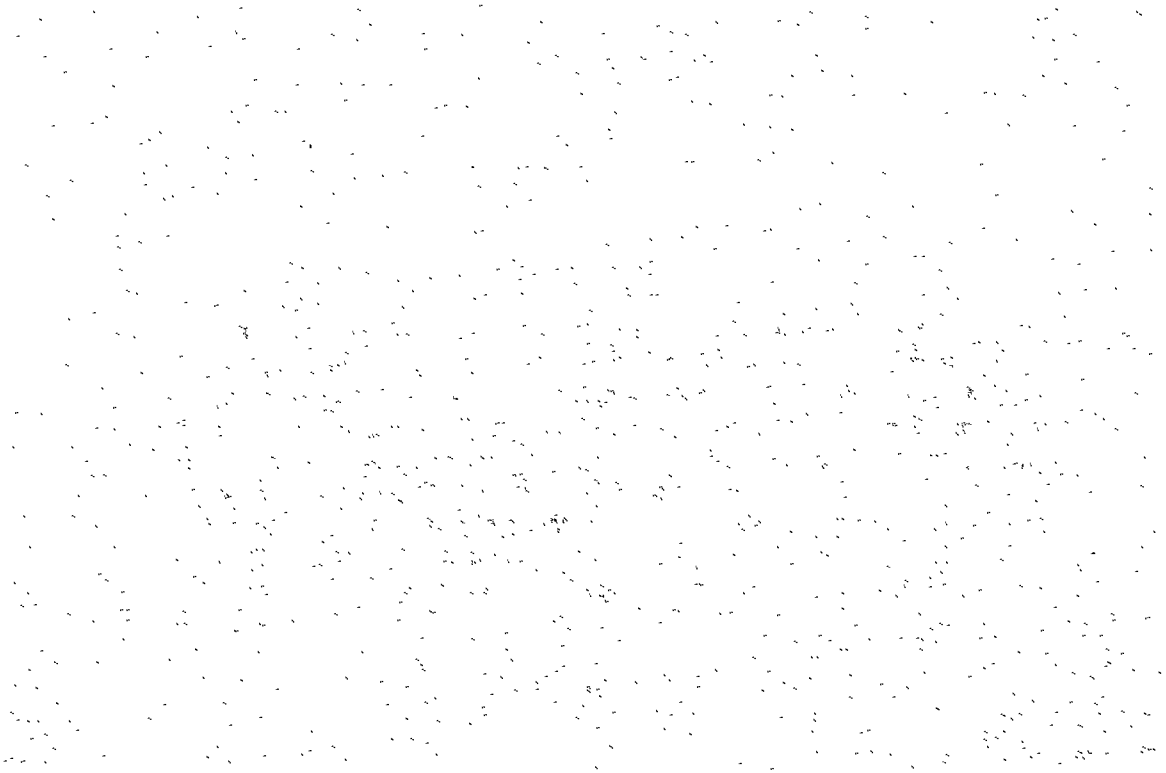
[1] *note*: 2 of the 104 respondents who cooperated could not fill out the entire questionnaire. They were left out of account in the analyses.

[2] *note*: educational levels according to Dutch school system: primary school (lagere school, VGLO/LAVO); lower secondary (ULO, MULO, MAVO, HAVO); pre-university (HBS, MMS, atheneum, gymnasium, VWO); lower vocational (LBO); intermediate vocational (MBO); higher vocational (HBO); university (universiteit)

[3] *note*: Respondents who had never had a job

sample. As was observed in the previous section these uneven distributions according to sex, education and occupation correspond to self-ascribed competence on each field.

Since it has been observed that political competence and centrality is greater among younger people and among respondents living in larger cities, it is to be expected that more or less intermediate levels of political competence and centrality will be found among the respondents in the present study, who are between 40 and 55 years old and live in a medium-sized city. On the medical field it was expected that personal experience in particular will lead to greater competence and centrality. Respondents between 40 and 55 years old were chosen especially because their experience with illness was expected to show more variance. In view of the age of the respondents it can be expected, again, that more or less intermediate levels of competence and centrality will be found in the present study.



6 THE ASSESSMENT OF ATTITUDE STRUCTURES

In this chapter, the findings of the study will be discussed. Before turning to the analyses that apply to the hypotheses formulated in chapter 4, the results of the instruction tasks will be described in the first section to check whether the respondents carried out the magnitude scaling tasks well. If the respondents use the instrument in the proper way, it can be concluded that any differences in attitude structures cannot be attributed to different capacities to express magnitude judgments. In the second section the different indicators of attitude competence and centrality will be presented. In the third section the validity of these measures is assessed, while the rest of the chapter will deal with the relations between attitude competence and centrality on the one hand and involvement in the field, social position and sex on the other hand.

6.1 The use of the instrument

In this section it will be analyzed whether the results of the instruction tasks are similar to the results of other magnitude scaling experiments. This is to say that the results should follow the power law, as was explained in section 5.2. It is known from psychophysical and social scaling that the regression coefficient of the power function on log-log axes should be 1.0 for the cross-modality match between line-drawing and number estimation (Lodge, 1981a). It is also known that the power law holds rather well on the individual level. If correlation coefficients between the responses in one modality and the responses in the other modality are calculated at the individual level, these have a frequency distribution with a mean close to 1.0 and a low standard deviation. The individual regression coefficients are close to the regression coefficient at the group level, but they usually vary more than the correlation coefficients. If the data of the present study can be described in a similar way, it can be concluded that the instrument was used properly by the respondents and that differences found in the attitude task are not related to differences in the use of the instrument.

The analyses of the responses closely follow Lodge's guidelines (1981a) on how to treat magnitude scaling data. For each item a number and a line score were calculated:

$$\text{number score}_{(\text{item x})} = \ln (\text{number given to item x / number given to reference}) \quad (6.1)$$

$$\text{line score}_{(\text{item x})} = \ln (\text{line length given to item x / line length given to reference}) \quad (6.2)$$

In words: the score on an item is computed as the natural logarithm of the ratio of the number (or line length) given to an item to the number (or line length) given to the reference. On the sound task a minus sign was added to the number and line scores of the items that a respondent judged to be less loud than the reference, so that items judged louder were distinguished from items judged less loud on the sound task.

The cross-modality match is plotted in figure 6.1 for the metric task, and in figure 6.2 for the sound task. On the Y-axis are the mean line scores, on the X-axis are the mean number scores. The solid line represents the ideal regression coefficient of 1.0;

Figure 6.1 Cross-modality match for the metric task

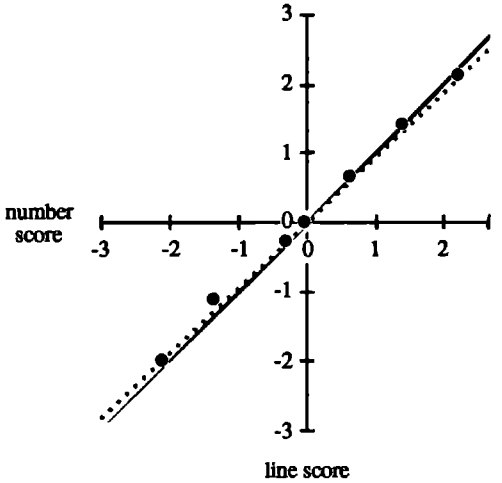


Figure 6.2 Cross-modality match for the sound task

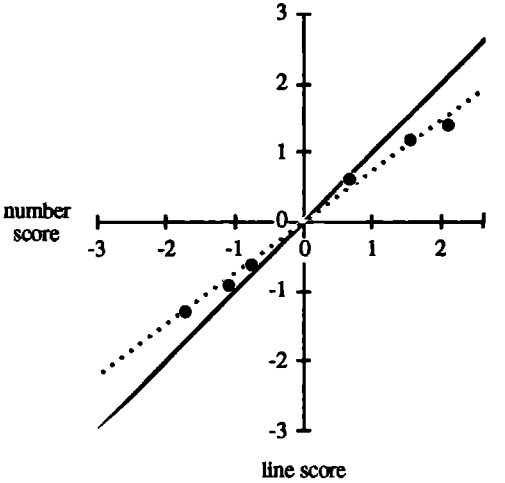


Table 6.1 Cross-modality match for the instruction tasks (city sample; N=102)

	metric task		sound task	
	correlation	regression	correlation	regression
group level	.998	.94	.997	.74
individual level				
mean	.95	.97	.90	.91
standard deviation	.05	.22	.14	.56

the dotted line represents the regression line as calculated from the data. The corresponding statistics can be found in table 6.1. The cross-modality match is plotted in figure 6.1 for the metric task, and in figure 6.2 for the sound task. On the Y-axis are the mean line scores, on the X-axis are the mean number scores. The solid line represents the ideal regression coefficient of 1.0; the dotted line represents the regression line as calculated from the data. The corresponding statistics can be found in table 6.1.

It can be seen that on log-log coordinates, the relationship is clearly linear. On both tasks, but especially on the sound task, the regression coefficient[1] is slightly below 1.0. This is to say that the lines drawn for large items were slightly too short and that those drawn for the small items were slightly too long. A regression bias for line drawing is not uncommon in magnitude scaling experiments (Lodge, 1981a) and it was also found in the pilot studies (Westerhof, 1989a, 1989b). The fact that the regression bias is greater for the sound task than for the metric task can be explained as follows. On the metric task the largest number could be adequately represented by a line that is exactly the width of the screen. On the sound task however, respondents sometimes could not give a line as long as they would have liked to give, because the maximum length of the line was restricted to the width of the computer screen.

At the individual level the frequency distributions of the individual coefficients are much like those found in other experiments (Lodge, 1981a; see table 6.1). On both tasks the mean correlation is close to 1.0, and the standard deviation is low. The mean regression coefficient is rather close to the coefficient at the group level and the standard deviation is higher than for the correlation coefficients. On the sound task, the mean and standard deviation of the correlation and regression coefficients are somewhat further away from the ideal than on the metric task. This was to be expected because the descriptions of sounds are less precise items than numbers and lines. An analysis of variance showed that there are no significant differences in the responses of respondents differing in social position or sex (see appendix 4).

In sum, it can be concluded that the respondents used the questionnaire appropriately. Thus, if differences are found in the attitude task, they can not be attributed to differences in the capacity to use the measurement instrument. Instead, such differences will have to be interpreted as relating to the attitude-nonattitude continuum. These differences will be reported in the rest of this chapter.

6.2 The empirical indicators of attributes of attitude structures

In chapter 4, it was hypothesized that not all respondents have attitudes about all questions: they differ in attitude competence. It was hypothesized that not all answers on attitude questions in an opinion survey are given in the same way. In the extreme case respondents who do not have an attitude (a nonattitude) may randomly pick a response alternative. On the basis of psychological theories, the nonattitude-attitude continuum was described in chapter 2 as a continuum of cognitive centrality. Knowledge, accessibility, crystallization, and constraint are different concomitants of cognitive centrality. It was argued that evaluative extremity is an attitude dimension independent of cognitive centrality. In this section the different measures that were used to assess these attributes of attitude structures are described. Tables 6.2 and 6.3 provide an overview of the different empirical indicators used on the political and medical field, respectively. The means and standard deviations of these measures are also presented in tables 6.2 and 6.3. For those measures that are composites computed from different items, the reliability (Cronbach's alpha) is also reported.

The line and number scores on each item are calculated in the same way as on the metric and sound task as the natural logarithm of the ratio between the item score and the reference score (see formula's 6.1 and 6.2). However, the scores on the attitude task were only computed for respondents who did not answer that they had not thought about the issue that was presented them. The scores on items with which a respondent disagreed were given a minus sign in order to distinguish between agree and disagree responses. Furthermore, the average of the line and number scores was computed. This average score is called the item score.

To measure *knowledge*, three knowledge tests were used on each field. On the political field questions were asked about political parties in parliament, names, parties and functions of politicians and about ideological statements of the three major parties (VVD,

Table 6.2 Empirical indicators of attributes of attitude structures; field of politics

name	measure	mean	sd	alpha
knowledge				
parties	number of parties in parliament known	5.4	2.4	0.79
politicians				
name	number of names of politicians known	3.6	1.7	0.82
party	number of parties of politicians known	3.0	1.9	0.83
function	number of functions of politicians known	2.6	1.9	0.83
ideology	number of statements attributed to the right party	6.2	3.0	0.84
competence	number of items a respondent claimed to have thought about (both in the line drawing and in the number estimation modality)	6.2	1.5	0.78
accessibility	mean response time of number score and line score (in seconds)	38	16	0.76
crystallization[2]	parallel-test reliability between line scores and number scores (r)	0.79	0.31	-[1]
constraint[3]	standard deviation of z-transformation of item scores, after recoding 'leftist' items	0.7	0.4	-[1]
extremity	mean of absolute values of item score	1.1	0.7	0.89

note: The values indicated are calculated for the city sample and the politically sophisticated; N=135

[1] *note*: no Cronbach's alpha could be calculated

[2] *note*: the comparable figures for the sound task are: mean = .90; sd = .14

[3] *note*: constraint is calculated only for respondents who claimed to have thought about all items (N=77)

Table 6.3 Empirical indicators of attributes of attitude structures; field of medicine

name	measure	mean	sd	alpha
knowledge				
concepts	number of concepts used by alternative healers and doctors known	4.9	2.6	0.76
names	number of names of alternative healers and doctors known	5.5	2.3	0.71
ideology	number of statements attributed to the right healer/doctor	6.2	2.1	0.57
competence	number of items a respondent claimed to have thought about (both in the line drawing and in the number estimation modality)	6.0	1.6	0.76
accessibility	mean response time of number score and line score (in seconds)	42	17	0.73
crystallization[2]	parallel-test reliability between line scores and number scores (r)	0.78	0.37	-[1]
constraint[3]	standard deviation of z-transformation of item scores, after recoding 'alternative' items	0.9	0.6	-[1]
extremity	mean of absolute values of item score	1.1	0.7	0.93

note: The values indicated are calculated for the city sample and the sophisticated in medicine; N=114

[1] *note*: no Cronbach's alpha could be calculated

[2] *note*: the comparable figures for the sound task are: mean = .90; sd = .14

[3] *note*: constraint is calculated only for respondents who claimed to have thought about all items (N=63)

CDA and PvdA). On each test, the number of correct answers is computed as a measure of political knowledge. Cronbach's alpha is rather high for all political knowledge tests.

To measure *knowledge*, three knowledge tests were used on each field. On the political field questions were asked about political parties in parliament, names, parties and functions of politicians and about ideological statements of the three major parties (VVD, CDA and PvdA). On each test, the number of correct answers is computed as a measure of political knowledge. Cronbach's alpha is rather high for all political knowledge tests.

The knowledge tests on the field of medicine dealt with concepts used by doctors and alternative healers, with names of physicians and healers, and with ideological statements underlying orthodox medicine, acupuncture and paranormal healing. For each test the number of correct answers was computed as a measure of knowledge (see table 6.3). The reliability coefficients for these tests are lower than on the political field. Cronbach's alpha of the ideology test is rather low. In all knowledge tests higher scores indicate more knowledge. It can be seen in tables 6.2 and 6.3 that there is considerable variance in all tests, indicating that the knowledge base of the attitudes of some respondents is broader than that of others.

To measure attitude *competence* respondents were explicitly asked if they had thought enough about the item presented. This filter question proved to be effective in other studies (see section 5.2). If respondents answered they had not thought much about an item, either in the line drawing or in the number estimation modality, they were classified as having no attitude on the item. The number of items on which a respondent claimed to have an attitude is computed as a measure of attitude competence. Thus, the higher the score, the more competent the respondents. Tables 6.2 and 6.3 show that the summated measure is reliable on both fields. It can be seen that not all respondents feel competent to express an opinion on all issues asked about, either on the political or on the medical field. This finding confirms the hypothesis that not all respondents have attitudes about all items, even though the items were translated from the legitimate specialized language of each field into more everyday language. *All other measures are computed only for those respondents who claimed to have an opinion on the question.*

For each item that a respondent claimed to have thought about, the mean of the response time in the line drawing modality and the response time in the number estimation modality was calculated in seconds. The average response time for the items respondents claimed to have thought about is used as a measure of attitude *accessibility*. The shorter the response time, the more accessible the attitude. The mean response time per item is not found to be related to the reading difficulty per item, as measured by Flesch' readability yardstick (see also chapter 5, note 2; r=.09). The response time is, however, attenuated by the time necessary to operate the computer: both on the political field and on the medical field the response times were highly associated with the mean response time on the sound task (resp.: r=.66 and r=.68). Thus, the response time is strongly determined by the time that people need to type the answer on the computer. The measure of accessibility is rather reliable on both fields (tables 6.2 and 6.3). In the next section, however, it will become clear that, although the measure is reliable, it is not valid.

The individual Pearson's correlation coefficient between line and number scores on a field is used as an indicator of attitude *crystallization*. This coefficient can be interpreted as a measure of parallel-test reliability. Since this measure is not a composite of different items no reliability measure could be calculated. Tables 6.2 and 6.3 show that the mean of the individual correlations is lower than in the sound task and that the standard deviation is higher. It follows that there are differences in the crystallization of attitudes which cannot be attributed to the capacity to carry out the computerized magnitude scaling task. This finding indicates that not all answers are derived from equally crystallized attitudes.

To measure the level of *constraint* among the answers, the measure of 'relative' constraint used by Barton and Parsons (1977) was employed (see section 2.2). The item scores of the 'leftist' and 'alternative' items were recoded so that a higher score on a political item always indicates a more 'rightist' preference and a higher score on a medical item always indicates a more 'orthodox' preference[2]. The item scores were transformed into z-scores. The standard deviation of the z-scores is used as a measure of constraint. The constraint measure is only reported for those respondents who claimed to have thought about all items[3]. Of course, the number of respondents is reduced and the constraint measure deals with a specific subset of respondents, who are more competent than the average in the sample. The differences found between respondents in this subset will apply *a fortiori* for those respondents who are less competent and indicated they had not thought about one or more items. As in the case of the indicator of crystallization, no reliability coefficient could be calculated for this measure of constraint. The findings reported in tables 6.2 and 6.3 indicate that not all respondents gave equally constrained answers.

The *extremity* of the answers was calculated in terms of the absolute value of the item scores. The mean of these scores is used as a measure of attitude extremity[4]. Of course, one might argue that this measure does not indicate attitude extremity, but is more determined by response sets. Some respondents use more extreme scores than others, as is indeed found in appendix 4. The measure of extremity is highly reliable on both fields (tables 6.2 and 6.3).

In sum, sufficiently reliable measures have been constructed and can be used to assess knowledge, competence, accessibility, crystallization, constraint, and extremity. Only the ideology test on the medical field has a rather low reliability. The findings on attitude competence indicate that not all respondents feel competent to express attitudes on the items. Furthermore, the findings on the other measures indicate that not all answers refer to central attitudes so that some answers are disguised nonattitudes. However, before stating this conclusion with certainty the measures also have to be validated. This will be done in the next section.

6.3 The relationships between the attributes of attitude structures

The existing evidence about attitude structures led us to hypothesize in chapter 4 that the different indicators of attitude competence and centrality will be interrelated. It was argued that they are independent of the evaluative extremity of the attitudes. Therefore, the correlations between the measures of knowledge, competence, accessibility, crystallization, constraint and extremity were calculated. The results are reported in table 6.4 for the political field and in table 6.5 for the field of medicine. All measures were recoded so that higher values always indicate more central attitudes. It is expected, then, that all correlations (except for extremity) will be positive.

The upper triangles of the tables show that the *knowledge* tests are highly related on both fields. This finding proves that the knowledge tests are valid. Consequently, there is one knowledge factor on the political field, comprising parties, politicians and ideological

Table 6.4 Correlations of individual measures of attitude structure on the field of politics (city sample and politically sophisticated; N=135)

	knowledge					attitudes				
	parties	name	party	funct.ideology		comp.	acc.	cryst.	constr.	extr.
correlation										
parties	-									
name politicians	.70**	-								
party politician	.76**	.89**	-							
function politician	.73**	.85**	.90**	-						
ideology	.68**	.66**	.68**	.69**	-					
competence	.39**	.40**	.32**	.30**	.38**	-				
accessibility[1]	.16*	.07	.09	.11	.12	.00	-			
crystallization	.28**	.21*	.25**	.26**	.27**	.11	-.10	-		
constraint[2]	.26*	.32**	.26*	.27*	.27*	-[3]	.08	.13	-	
extremity	.14	.10	.13	.09	.10	.10	-.11	.23**	-.56**	-
constraint[4]	.36**	.38**	.34**	.33**	.38**	-	.11	.31**	-	-

note: all measures were recoded so that higher scores indicate more central attitudes; * p<.05; ** p<.01

[1] *note*: partial correlation with other measures, controlling for response time on sound task

[2] *note*: constraint is calculated only for respondents who claimed to have thought about all items (N=77)

[3] *note*: the respondents for whom constraint is calculated answered all items. Since they are therefore all equally competent, it is not possible to calculate the correlation coefficient with competence.

[4] *note*: partial correlation between constraint and other measures, controlling for extremity

Table 6.5 Correlations of individual measures of attitude structure on the field of medicine (city sample and sophisticated in medicine; N=114)

	knowledge			attitudes				
	concepts	names	ideology	competence	access.	cryst.	constraint	extr.
correlation								
concepts	-							
names	.73**	-						
ideology	.64**	.62**	-					
competence	.45**	.50**	.50**	-				
accessibility[1]	.02	.07	.03	.00	-			
crystallization	.31**	.24*	.34**	.17	.08	-		
constraint[2]	.10	.08	.06	-[3]	.12	-.13	-	
extremity	.11	.14	.15	.12	-.05	.18	-.88**	-
constraint[4]	.31**	.33**	.40**	-	.08	.06	-	-

note: all measures were recoded so that higher scores indicate more central attitudes; * p<.05; ** p <.01

[1] *note*: partial correlation with other measures, controlling for response time on sound task

[2] *note*: constraint is calculated only for respondents who claimed to have thought about all items (N=63)

[3] *note*: the respondents for whom constraint is calculated answered all items. Since they are therefore all equally competent, it is not possible to calculate the correlation coefficient with competence.

[4] *note*: partial correlation between constraint and other measures, controlling for extremity

statements. On the medical field there is one knowledge factor which relates to medical concepts, names and ideological statements.

Attitude *competence*, as measured by the number of items respondents say they have thought about, is highly correlated to the knowledge tests on both fields. It can therefore be concluded that answering "not to have thought about it much" does indeed measure

attitude competence, and does not indicate that respondents are not sure about their opinion or are not willing to give an opinion because they disagree with the way the question has been formulated (see section 2.2). Competence is not related to the other measures of the attitude-nonattitude continuum, because the other measures were calculated only for those respondents who claimed they had thought about the item. Since some of their answers are more similar to nonattitudes and others more similar to central attitudes no relationship between these measures and competence can be expected.

Because the measure of attitude *accessibility* is determined for a large part by the time necessary to operate the computer, the correlations for this measure are calculated while controlling for the mean response time on the sound task, which is taken as a measure of the time necessary to operate the computer. Only one partial correlation with the other measures appears to be significant: the one with the party test. But this coefficient is still rather low (.16). It should therefore be concluded that the measured response time is not a valid indicator of attitude accessibility. It is therefore not incorporated in any further analysis.

Before turning to the findings on crystallization and constraint, the findings on evaluative *extremity* are discussed, because they provide some difficulties in the interpretation of the crystallization and constraint measures. As expected, there are no significant correlations between extremity and knowledge. This finding supports the line of reasoning followed in section 2.2, that respondents may give extreme answers without having much knowledge of the issues asked about. There are no significant correlations with competence and accessibility, as was described above. On the political field however, there is a significant positive correlation between extremity and crystallization. However, this correlation should be interpreted as a result of the way the measures are calculated, since more extreme answers will lead to higher correlations between line and number scores. The significant negative correlations between extremity and constraint on both fields also result from the way the measures are calculated. As was to be expected, respondents who give more extreme answers will have higher standard deviations. It follows that the measure of constraint, adopted from Barton and Parsons (1977) is highly attenuated by the extremity of the answers. Since all correlations with extremity may thus be artifacts of the way the indicators are computed, it can be concluded that the hypothesis that evaluative extremity is a dimension of attitudes that is independent of cognitive centrality is supported by the data.

The correlations between attitude *crystallization* and knowledge are significant and positive, as expected. The strength of the correlations with competence, crystallization and extremity were already accounted for. Except for the lack of a significant correlation between crystallization and constraint, which will be explained below, the measurement of crystallization is valid and confirms the hypotheses.

On the political field the measure of attitude *constraint* is related significantly to the knowledge tests. On the medical field these correlations are not significant. Furthermore, no correlations with the other measures of cognitive centrality were found to be significant, but a highly significant correlation was found with extremity. Since the measure of constraint is contaminated by the extremity of the answers, partial correlations

were calculated between the measure of constraint and the other measures, while controlling for extremity. These partial correlations can be found in the last row of tables 6.4 and 6.5. It can be seen that the correlations with knowledge rise on both fields. If controlled for extremity, the correlations between constraint and knowledge are also significant. A significant positive correlation with crystallization appears on the political field, but not on the medical field. This lack of correlation will be explained in the next section. Apart from this lack of correlation between constraint and crystallization on the medical field, it can be concluded that the measure of constraint is associated to the other measures as expected and therefore valid.

In sum, the measures of different attributes of attitude structures are related as hypothesized, except for the measure of accessibility. As expected, attitude extremity is a dimension of attitude structure independent from centrality. Accessibility proved not valid. These measures of accessibility and extremity will not be included in further analysis. The measures of knowledge, crystallization and constraint proved valid and their relation to involvement, social position and sex will be discussed in the following.

6.4 Attitude structures and involvement in the field

In chapter 4 it was hypothesized that differences in attitude structures will be related to involvement in the field, both on the field of politics and the field of medicine. More involved respondents will be more competent and will have more central attitudes. Consequently, they will have more knowledge about the field, they will more often express an opinion on the questions asked, and their answers will be more crystallized and more constrained. Since attitude extremity was found to be an independent dimension of cognitive centrality, the results on this variable are not discussed. Findings on attitude accessibility will not be included either, because this measure did not prove to be valid. To test the hypotheses we constructed three groups according to the respondent's level of involvement on each field.

The field of politics

The construction of groups

The 33 respondents of the politically sophisticated sample are classified as *more involved.* Six respondents from the city sample who are active members of a trade union and/or active members of a political party and/or participate regularly in political actions are also classified as more involved. One respondent who studied political sciences and one who holds a governmental position were also added to this group. There are thus 41 respondents (33 + 6 + 1 + 1) in this group.

In the city sample (minus the 8 more involved respondents), those respondents who are a party member or a union member, but not active, and those who participate only occasionally in political actions are classified as *moderately involved* (N=34). All others are classified as *less involved* (N=60).

The relationship between political involvement on the one hand and social position and sex on the other is reported in table 6.6 (See section 6.5 for the classification according to social position). More involved respondents have significantly higher social positions and are more often male.

Interest, participation and consumption

To validate the construction of these groups, political interest, participation, and consumption were assessed (table 6.7). Except for watching TV, the more involved groups are more interested, participate more often and consume more often. Of course, the relationship with membership of political parties or unions, and with participation in political actions is a result of the way the groups were constructed. Of the other variables, only having a party affiliation and reading the papers are significantly associated with involvement. The less and moderately involved group are alike as for voting and talking. The more involved group watches TV-programs about politics slightly less often.

In sum, while the classification in involvement groups has thus been validated, it should be kept in mind that the differences in involvement are differences in the *degree* of involvement (some respondents are more involved and others less) and not discrete differences (some respondents are involved while others are not).

Competence and centrality

It was hypothesized that attitude competence and centrality rise with the level of involvement in the field. The measures of knowledge, competence, crystallization and constraint relevant to this hypothesis are reported in tables 6.8 and 6.9.

The mean scores on all tests on political *knowledge* rise with involvement (table 6.8). If more specific knowledge about the party and function of politicians is asked for, the differences between the groups become greater.

Attitude *competence*, as indicated by the mean number of items to which respondents did not respond they had not thought much about, rises with involvement in the field, but not significantly. A second indication of attitude competence is whether respondents answered all 7 items on politics. Again, competence rises with involvement, and significantly, this time. An analysis per item showed that this relationship is found on almost all items. *All other findings apply to those respondents who claimed to have an opinion on the items.*

The mean correlation coefficient between line and number scores, a measure of attitude *crystallization*, rises with involvement in the field, but not significantly. The standard deviation declines with involvement. It can be seen that the more and moderately involved have correlation coefficients that are rather close to the sound task (mean=.90; sd=.14). In the less involved group, there is a clear drop in explained variance, indicating that their answers are given from less crystallized attitudes and are more like nonattitudes.

Table 6.6 Political involvement by social position and sex

		social position*			sex**	
row %	N	lower	middle	higher	male	female
involvement						
less	60	24	54	22	30	70
middle	34	26	47	27	73	27
more	41	18	31	51	71	29
total	135	23	45	32	53	47

* chi2 (4 d.f.) with p<.05; ** chi2 (2 d.f.) with p<.01

Table 6.7 Political interest, participation and consumption by involvement

		interest	participation						consumption	
% yes	N		party affiliation	party voting	party member	union member	action	talks	paper	TV
involvement			**		**	**	**		*	
less	60	70	72	81	0	0	0	77	67	79
middle	34	77	71	82	12	65	41	74	68	79
more	41	83	95	95	49	73	88	93	88	68
total	135	76	79	86	18	39	37	81	74	76

* chi2 (2 d.f.) with p<.05; ** chi2 (2 d.f.) with p<.01

Table 6.8 Political knowledge by involvement

		parties	politicians			ideology
means	N	known	name	party	function	right
involvement		**	**	**	**	**
less	60	4.3	3.1	2.2	1.9	5.3
middle	34	5.5	3.3	2.6	2.2	6.3
more	41	6.8	4.5	4.2	4.0	7.5
total	135	5.4	3.6	3.0	2.6	6.2

** F-ratio in analysis of variance with p<.01

Table 6.9 Attitude structure on the field of politics by involvement

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
involvement			*			**
less	60	5.9	50	.72	.40	.76
middle	34	6.1	56	.84	.20	.89
more	41	6.6	76	.86	.19	.56
total	135	6.2	59	.79	.31	.71

* chi2 (2 d.f.) with p<.05; ** F-ratio with p<.01

1 *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=77); higher values indicate less constraint

Table 6.10 Attitude constraint on the field of politics by involvement

	1 unem-ployment	2 social security	3 privati-zation	4 develop-ment aid	5 apartheid	6 income differences	10 multi-nationals
standard deviation							
less and middle	1.2	1.2	1.3	1.1	1.2	1.3	1.4
more involved	0.7	1.0	0.7	0.9	1.2	0.9	1.2
pearson r							
1 unemployment	-	.50**	.68**	.33	.31	.60*	.23
2 social security	.45**	-	.62**	.33	.07	.63**	.45*
3 privatization	.50**	.43**	-	.35	.27	.69**	.27
4 development aid	.33**	.07	-.05	-	.19	.34	.31
5 apartheid	.50**	.33*	.43**	.30*	-	.18	.55**
6 income differences	.56**	.43**	.57**	.17	.51**	-	.25
7 multi-nationals	.18	.39**	.11	-.05	.20	.44**	-

note: * p<.05; **p<.01
less and middle involved respondents (N=46) below the diagonal; mean r = .34
more involved respondents (N=31) above the diagonal; mean r = .41

The findings on attitude *constraint* only concern those respondents who answered all 7 questions on politics. Since the measure is highly associated with attitude extremity (see section 6.2.), the analysis of variance was carried out with extremity as a covariate. Even for the more competent respondents, who answered all questions, the relation between involvement and constraint is significant in this analysis: more involved respondents have lower standard deviations indicating that they have more constrained attitudes.

In sum, it can be concluded that more involved respondents have more knowledge about politics. They have attitudes about politics more often. Their attitudes are more crystallized and more constrained. All findings support the hypotheses.

Relationships between items

The correlations between the answers on the political items were computed as a more specific measure of constraint than the Barton and Parsons measure. Only those respondents who answered all questions are incorporated in the analysis, just as in the analysis of constraint at the individual level. Respondents from the less and moderately involved groups were combined in one group (N=46), which corresponds to the group of respondents in the city sample who answered all political items. These respondents were compared with the political 'elite' of the more involved group (N=31). All 'leftist' items were recoded so that higher scores on all items indicate agreement with the right.

The findings are presented in table 6.10. As correlation coefficients depend on the variance of the items, the standard deviation in each group on each item is given in the first two rows of table 6.10. It can be seen in the table that the correlation coefficients are somewhat higher for the more involved group than for the less involved group, but not much. On item 5 (apartheid) the more involved have even lower correlations than the less involved. The mean correlation for the more involved is .41, for the less involved the mean is slightly lower: .34. This difference is not significant (t=1.20; p>.05). The fact that the differences are only slight and not significant might be attributed to the higher standard

deviations in the less involved group. Indeed, the individual measure of constraint reported above, which was shown above to be independent from the variance on the items, shows that in fact there are significant differences according to involvement.

In sum, since the findings apply only to the specific subsample of respondents who feel competent to answer all questions, it can be concluded that the hypothesis that more involved respondents give more constrained answers is supported by the data, especially when the differences in variance are taken into account.

The field of medicine

The construction of groups

To test the hypothesis on the medical field, respondents were classified in three groups according to their involvement in the field of medicine. The sophisticated sample on the medical field (N=12) is classified as *more involved*. Those respondents from the city sample who have a medical occupation (physician, dentist, nurse) are also classified as more involved (N=7). Hence, the more involved group comprises only 19 respondents, and is rather small. Respondents who mentioned they had had experience with serious illness (cancer, heart and vascular diseases, rheumatism, stroke, polio, diabetes) either personally or in their close family (father, mother, son, daughter, brother, sister, husband, wife) are classified as *moderately involved* (N=43). Those respondents who had no experience with serious illness, either themselves or in their close family, are classified as *less involved* (N=52). The groups thus constructed are very heterogeneous, especially the more involved group, which consists of both professionals and 'expertized' patients in alternative medicine.

As can be seen in table 6.11, the groups do not differ significantly in social position or sex. However, three quarters of the rather small more involved group are female and only one quarter are male, due to the fact that 11 of the 12 sophisticated respondents recruited in the practice of alternative healers were female. As was also argued in section 5.5, this is related to the greater medical consumption on the part of women. The findings of table 6.11 support the assumption that involvement in the medical field has a social distribution which is different from the social distribution of involvement in the political field (see section 4.2).

Interest, participation and consumption

To validate the construction of the groups, the relationship between involvement on the one hand and interest, participation, and consumption on the other was analyzed (table 6.12). Having a medical profession, and having experience with serious illness are of course related significantly to the level of involvement, because both were used as criteria to construct the groups. Respondents from the more involved group have more often visited an alternative healer. This also results from the classification procedure: 12 respondents of the more involved group were recruited because of their experience with alternative healing. In the other groups about one third of the respondents visited an

alternative healer. Although the exact number of their visits and their satisfaction with the healer's treatment are unknown, the answers on the question about personal experience with illness show that most respondents in the less and moderately involved group have not had any extensive experience with alternative healing. Most of them went to a healer only occasionally, to try something different.

A significant relationship is found between reading about medicine and involvement in the field. Members of a union of patients are more often found in the more involved group. Although not significantly, more involved respondents are more interested in the issues asked about in the questionnaire. They also talk slightly more often about health and illness and watch more TV programs about these issues.

In sum, it can be concluded that the categorization in three groups is valid. Even the less involved, however, are interested in the field, even though they did not have any experience with serious illness. Most of them read about it and watch TV-programs about it. A lot of them have had at least some experience with illness as their answers on the question about experience with illness showed.

Competence and centrality

It was hypothesized that respondents who are more involved in the medical field will have more knowledge about it. They will more often give answers on the items about medicine. If they give answers, they will be more reliable and constrained. Table 6.13 and 6.14 show the findings on these hypotheses.

The *knowledge* of names of physicians and healers, and the knowledge of concepts and ideological statements in the medical field rise significantly with the level of involvement (table 6.13). It is especially the more involved who have a great deal of knowledge.

The average number of items that respondents said they had thought much about rises with the level of involvement in the field of medicine. The difference in attitude *competence* thus measured is not significant. The percentage of respondents who answered all questions also rises slightly with involvement, but not significantly. The proportion of respondents answering all questions is especially high in the more involved group. An analysis of the individual items showed that respondents from the moderately and more involved groups answer the questions dealing with science and university (items 13, 14 and 16) more often, whereas only the respondents from the more involved group answer three alternative healing items (items 11, 15 and 17) more often. The differences in competence are, consequently, closely connected to experience with orthodox and alternative medicine in each of the groups. ***All other findings relate to those respondents who claimed they had an opinion on the items.***

The average correlation between line and number scores, which is used as a measure of attitude *crystallization*, rises with involvement, while the standard deviation declines. The differences are not significant, but this can be explained by the fact that the groups are rather small. The coefficients of the more involved are rather much like those on the sound task (mean=.90; sd=.14). The coefficients of the less involved are rather close to those of the less involved on the political field (mean=.72; sd=.40).

Table 6.11 Involvement in the field of medicine by social position and sex

		social position			sex	
row %	N	lower	middle	higher	male	female
involvement						
less	52	20	53	27	42	58
middle	43	32	46	22	52	48
more	19	17	44	39	26	74
total	114	24	49	27	43	57

note: no significant differences

Table 6.12 Interest, participation and consumption on the field of medicine by involvement

		interest	participation					consumption	
% yes	N		medical profession	serious illness	alt.med.	union member	talks	reads	TV
involvement			**	**		**		**	
less	52	71	0	0	39	2	69	78	53
middle	43	81	0	100	35	5	77	63	56
more	19	95	37	89	63	26	95	100	68
total	114	79	6	61	41	7	77	76	57

** chi2 (2 d.f.) with p<.01

Table 6.13 Knowledge of medicine by involvement

means	N	names known	concepts known	ideology known
involvement		**	**	**
less	52	4.9	4.3	5.7
middle	43	5.6	4.7	6.2
more	19	7.1	7.0	7.7
total	114	5.5	4.9	6.2

** F-ratio in analysis of variance with p<.01

Table 6.14 Attitude structure on the field of medicine by involvement

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
involvement						
less	52	5.7	52	.71	.48	.91
middle	43	6.1	54	.80	.23	.81
more	19	6.6	68	.93	.09	.93
total	114	6.0	55	.78	.37	.88

note: no significant differences

[1] *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=63); higher values indicate less constraint

The individual standard deviation across z-scores, a measure of attitude *constraint*, is unrelated to involvement in the field for those respondents who answered all questions. The analysis of variance, in which attitude extremity is specified as a covariate, shows that the relationship between constraint and involvement is not significant.

In sum, knowledge rises, as expected, with the involvement in the field. It can be concluded that attitude competence and crystallization rise with the level of involvement, but not significantly. No support was found for the hypothesis that the more involved respondents have more constrained attitudes, but the analysis of the interrelations between items to be reported in the next section will provide some more detailed information about this lack of support for the hypothesis.

Relationships between items

In table 6.15 the correlations between the items can be found for the less involved group and for the combined moderately and more involved group. Only those respondents who answered all seven questions on the medical field have been included in the analysis. All scores on 'alternative' items were recoded, so that higher scores always indicate agreement with orthodox medicine. The first two rows represent the standard deviation of the items.

The first striking finding of table 6.15 is that not all correlations are positive. Negative correlations are found especially among the more involved. Among the more involved, items indicative of alternative healing (items 11, 12, 14, and 17) are found to be positively interrelated. Items indicative of orthodox healing (items 13, 15 and 16) are also positively intercorrelated. However, alternative and orthodox items are associated negatively, except for two correlations on item 11 (gift of healing), which are almost equal to zero. Since the scores were recoded so that higher scores always indicate agreement with orthodox medicine, it follows that if the moderately and more involved agree with an 'alternative' item, they also agree with an 'orthodox' item. For example, the more these respondents agree with the 'alternative' item that states "health and illness always concern things which accepted science will never understand" (item 14), the more they agree with the 'orthodox' item "one can only learn to cure people by a thorough study at a university" (item 13). Hence, for this group alternative and orthodox medicine are not opposed or contradictory. Instead, they complement each other well. For the less involved the pattern of positive and negative correlations is somewhat different. Alternative items are related positively to alternative items, and orthodox items are related positively to orthodox items, like in the more involved group. However, most alternative items are also positively related to orthodox items. For example, if respondents in this group agree more with the 'alternative' item 13 mentioned above, they agree *less* with the 'orthodox' item 14. The only item deviating from this pattern (item 15 on the visit of alternative healers) is also the only item which has a practical connotation for patients: "Alternative medicine can only be recommended if regular medical science cannot accomplish anything." The other items apply more to the ideology of healing; if they have a practical connotation it applies more to the doctor or healer than to the patients. Thus, on an ideological level this group sees alternative healing and orthodox medicine as opposed to each other, whereas ideological

Table 6.15 Attitude constraint on the field of medicine by involvement

	11 gift of healing	12 message illness	17 reincar-nation	14 science negative	15 visit alt.healer	16 scientific proof	13 study at university
standard deviation							
less involved	2.0	1.5	1.7	1.3	1.6	1.6	1.7
middle and more	1.3	1.3	1.5	1.1	1.1	1.2	1.5
pearson r							
11 gift of healing	-	.26	.41*	.19	-.11	.06	.01
12 message illness	.56**	-	.32	.68**	-.48**	-.21	-.58**
17 reincarnation	.38	.58**	-	.46**	-.19	-.07	-.05
14 science negative	.09	.53**	.61**	-	-.61**	-.38*	-.55**
15 visit alt. healer	-.44*	-.19	-.23	-.33	-	.03	.52**
16 scientific proof	.47*	.61**	.41*	.25	.06	-	.39*
13 study university	.52**	.50**	.47*	.39*	.09	.78**	-

note: * p<.05; ** p<.01
less involved respondents (N=27) below the diagonal; mean r = .32; mean absolute values r = .42
middle and more involved (N=36) above the diagonal; mean r = .01; mean absolute values r = .33

reasons do not appear to prevent people from supporting the advice to visit healers.

So, on the practical level everybody seems to agree that visiting an alternative healer is related positively to alternative ideology, but it is not contradicted by the orthodox ideology. This finding is supported by other studies, which showed that most patients visited alternative healers to try something different: 'it doesn't hurt to try' (Visser, 1988). On the ideological level, however, respondents who have had more personal experience with serious illness see alternative and orthodox ideology as complementary, whereas respondents who are less experienced see alternative and orthodox medicine as contradictory. The finding that orthodox and alternative medicine are seen as complementary rather than as contradictory is also found in other studies on the ideology of alternative medicine (Berliner and Salmon, 1980; Hufford, 1988)[5], and on patients of alternative healers (Vosmeer, 1992). Furthermore, the complementary function of alternative medicine is illustrated by the fact that doctors with university education also use alternative therapies (Chateauraynaud, 1986; Post, 1990)[6], even in increasing numbers (Maassen van den Brink, 1986), and also by reports by political committees on alternative medicine (Muntendam, 1981; Gezondheidsraad, 1993).

Personal experience with health and illness may play a major role in coming to see the complementary functions of different approaches to medicine. The more involved group may have experienced themselves that orthodox medicine, and especially a scientific legitimation, might be useful, but cannot cover everything that can be said about health and illness. The professionals on the medical field in this study, who all work as general practitioners or nurses, also appear to acknowledge the limits of scientific medicine. Personal experience with illness also appears to play a major role in becoming a doctor using alternative therapies (Goldstein et al., 1985, 1987), and most of the professionals have indeed had personal experience with serious illness. Respondents with less experience with illness may be more or less aware of the fact that a struggle exists between the

alternative and orthodox schools in medicine and may give answers according to this perceived ideological division.

Furthermore, the findings may be related to the fact that the field of medicine has been changing rather rapidly in the last few decades. Alternative medicine is increasingly recognized as legitimate, despite the opposition of many scientific doctors (which is found more often among medical specialists than among general practitioners). In this sense the medical field differs from the political field, where the balance of power between right-wing and left-wing parties is more equal and has become firmly settled in the course of this century. Furthermore, the questions that were asked on the political field referred to issues that have given rise to profound and long-lasting rifts between left and right. The different structure of the medical field, which results in a more important role of personal experience, is seemingly related to opinions that are less well-ordered than those on the political field.

As regards the height of the correlations the mean of the less involved is significantly higher than that of the more involved (.32 and .01, resp.). However, since the sign of the correlations varies more in the more involved group, the mean of the absolute values of the coefficients was also computed. The mean for the less involved is still somewhat higher (.42) than for the more involved (.33), but not significantly. Since the standard deviations are somewhat higher for the less involved, this might explain part of the difference. Furthermore, it should be realized that the differences are found between those respondents who answered all questions.

In sum, the height of the intercorrelations does not differ much between the less and more involved, much like the individual measure of constraint. For the more involved alternative and orthodox ideology are complementary whereas they are contradictory for the less involved, except in the case of the more practically oriented item 15 (visit alternative healing).

Conclusion

To test the hypotheses that more involved respondents on both fields answer the attitude questions more often and that, if they give answers, their answers will represent more central attitudes and fewer nonattitudes, three groups with different levels of involvement were constructed on each field. The groups were found to differ in interest, participation and consumption on the field, so that the classification in levels of involvement is valid.

On each field, more involved respondents were found to have more knowledge. On the political field it was also found that more involved respondents answered the questions more often and that their attitudes were more crystallized and constrained. On the field of medicine, attitude competence and crystallization also rise slightly with involvement. On the medical field no differences were found in constraint. However, the last finding might be caused by the fact that the organization of attitudes is rather different for more and less involved respondents: for the former alternative and orthodox medicine are complementary, whereas for the latter they are contradictory on the ideological level, and complementary on the practical level. This finding was explained by the fact that the

structure of the medical field is changing, so that less agreement can be expected on what issues go with what other issues. Furthermore, the differences were interpreted in terms of personal experience with alternative medicine. Personal experience seems to account well for the differences in ideological organization between the groups.

Confirming the line of reasoning of chapter 4, no significant relationship existed between involvement in the medical field on the one hand and the social position and sex of respondents on the other, although the more involved were more often women. On the field of politics however, more involved respondents also had higher social positions and were more often men. Since both social position and sex were expected to be related to attitude competence and centrality on the political field, the differences might be attributed to differences in social position and sex. After the presentation of the findings relating to social position and sex in the next two sections this will be discussed in detail in section 6.7.

6.5 Attitude structures and social position

In chapter 4 it was hypothesized that differences in attitude structure are related to the positions of the respondents in the social space of class positions. The educational and occupational level of respondents will be used to specify their social position. Respondents with lower social positions will less often have attitudes about politics. They will consequently answer not to have thought about the questions on politics more often. If they do give answers, they will be more like nonattitudes, i.e. they will be less crystallized and constrained. On the field of medicine, however, it was hypothesized that the differences in attitude structure will not be related to the social position of the respondents, because interest in the field is assumed to be less tied to the educational and occupational level. In this section, the results applying to these hypotheses will be described. In order to more fully understand the differences in attitude structures, the differences in interest, participation and consumption on each field will also be discussed.

The construction of groups

To test these hypotheses, three groups were constructed according to their educational and occupational level. Since the two are of course highly associated, they were combined to construct groups (see table 5.2 for a description of the educational and occupational classifications). Respondents who have had primary, lower secondary or lower vocational education are classified as having a *'lower' social position* (N=23) if they carry out, or have carried out unskilled or skilled labour. Respondents who have had higher vocational or university education were classified as having a *'higher' social position* (N=27) if they work or have worked as middle-level employees or in higher occupations. All others were classified as occupying a *'middle' social position* (N=47). In the following analyses only respondents from the city sample were included. The sophisticated samples were recruited only to provide a sufficient number of more involved respondents to carry out the analyses reported in section 6.4. These 'elite' samples are not included here.

The field of politics

Interest, participation and consumption

To more fully grasp the differences in attitude structure, we will describe the relationship to the political field of respondents from different social positions. As has often been shown before (see chapter 3), respondents from different positions differ in interest, participation and consumption. Table 6.16 shows that interest, voting and talking about politics rise significantly with social position. Non-significant relationships are found on party affiliation, party membership and on reading about politics in the papers. Of course, the lower groups are not totally uninterested: little over half the respondents in the lower groups claim to be interested, have a specific party affiliation, vote, talk and read papers.

Union membership is evenly spread across the groups. Participation in political actions is less frequent in the middle group in comparison with the lower and higher groups. The higher group watches TV less often than the other groups.

In sum, it can be concluded that respondents with higher social positions are generally more interested in the field, especially when it comes to participation through political parties. They are also more talkative and read about politics more often. This is not to say that the other groups are uninterested. The lower groups have their own means of participation and consumption: through unions, actions and TV.

Competence and centrality

The findings relating to attitude competence and centrality can be found in tables 6.17 and 6.18. Table 6.17 shows that respondents with lower positions have less *knowledge* about politics. The differences are greater when respondents are asked for more specific information about the politicians: party and function. The differences are greatest on the ideology test. Here, the lowest group is just above chance level.

There are no significant differences as to attitude *competence*, neither in the average number of items that respondents said they had thought about, nor in the percentage of respondents who claimed they had opinions on all items. This finding might be attributed to the fact that the questions referred to long-lasting ideological divisions, of which most respondents will have been at least dimly aware. Furthermore, the inherent pressure to answer survey questions (see also section 2.2) may be especially strong for this kind of questions. An analysis of the individual items showed that there are differences only for item 10 (multi-nationals): the respondents from lower positions answered that they had not thought about this item more often.

The average correlation coefficient between line and number scores, which is used as a measure of attitude *crystallization*, is significantly lower for respondents with lower social positions, while the standard deviation declines. The higher group is close to the value on the sound task (mean=.90; sd=.14).

The individual standard deviation around the z-scores declines significantly with social position, even for those more competent respondents who answered all questions about politics. Since the extremity of the answers attenuates the constraint measure, the analysis

Table 6.16 Political interest, participation and consumption by social position

		interest	participation						consumption	
% yes	N		party affiliation	party voting	party member	union member	action	talks	paper	TV
social position		*		*			*	**		
lower	23	52	61	65	0	26	26	61	57	83
middle	47	81	72	83	4	28	11	78	68	85
higher	27	85	89	96	12	23	35	96	85	62
total	97	75	74	82	5	26	21	79	70	78

* chi2 (2 d.f.) with p<.05; ** chi2 (2 d.f.) with p<.01

Table 6.17 Political knowledge by social position

		parties	politicians			ideology
means	N	known	name	party	function	right
social position		**	**	**	**	**
lower	23	4.0	2.7	1.9	1.3	3.9
middle	47	5.0	3.2	2.4	2.0	5.8
higher	27	5.9	4.1	3.4	3.4	8.1
total	97	5.0	3.3	2.6	2.2	6.0

** F-ratio in analysis of variance with p<.01

Table 6.18 Attitude structure on the field of politics by social position

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
social position				*		**
lower	23	6.2	56	.63	.43	0.90
middle	47	6.1	47	.77	.35	0.80
higher	27	6.3	67	.88	.11	0.68
total	97	6.2	55	.77	.34	0.78

* F-ratio with p<.05; ** F-ratio with p<.01

1 *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=50); higher values indicate less constraint

Table 6.19 Attitude constraint on the field of politics by social position

	1	2	3	4	5	6	10
	unem-ployment	social security	privati-zation	develop-ment aid	apartheid	income differences	multi-nationals
standard deviation							
less and middle	1.2	1.0	1.1	1.2	1.1	1.2	1.3
more involved	0.9	1.2	1.3	0.8	1.3	1.2	1.4
pearson r							
1 unemployment	-	.78**	.81**	-.24	.57*	.80**	.47
2 social security	.20	-	.66**	-.32	.21	.62**	.32
3 privatization	.27	.13	-	-.40	.46	.84**	.64*
4 development aid	.37*	.02	-.10	-	-.01	-.30	-.13
5 apartheid	.35*	.21	.28	.43*	-	.49*	.38
6 income differences	.40*	.17	.33	.24	.47**	-	.71**
7 multi-nationals	.06	.47**	-.23	.05	.13	.29	-

note: * p<.05; **p<.01
respondents with lower and middle social position (N=32) below the diagonal; mean r = .22; mean absolute values r = .26
respondents with higher social position (N=18) above the diagonal; mean r = .42; mean absolute values r = .53

of variance is carried out with attitude extremity as a covariate. This finding indicates that *constraint* among attitudes is lower for respondents with lower social positions.

In sum, respondents with lower social positions have less knowledge about politics. Knowledge of the political field rises with social position. The answers of respondents with lower social positions are less reliable and constrained, as was expected. Contrary to the hypothesis, there is no relationship between attitude competence and social position. These findings support the idea that there is a great deal of pressure to answer the questions, even if respondents do not have a clear opinion about them.

Relationships between items

Table 6.19 shows the correlations between the items for those respondents who answered all seven items. The lower and middle group are combined (N=32) and compared with the higher group (N=18). Most correlations between the items are stronger for the higher group. The mean of the coefficients is higher for the respondents with more education and higher occupational levels (.42) than for the other respondents (.22), although not significantly. The means of the absolute values of the coefficients differ significantly between the higher and the lower group (resp. .53 and .26; $t=3.92$; $p<.05$).

An unexpected finding is the fact that item 4 (development aid) is negatively associated with the other items in the higher group. Since all items were recoded so that a high score means a preference for right-wing politics, this finding indicates that item 4 is not seen by this group as following the left-right distinction. However, these negative correlations are largely determined by two respondents who gave rather extreme negative item scores to all items except item 4. If these two respondents are left out, the correlations with item 14 are all positive (between .28 and .56).

Since the standard deviations are not systematically higher in the group with higher social positions, it can be assumed that the differences that were found are not caused by differences in variance. This is also the case with the individual measure for attitude constraint, which is independent of variance.

In sum, constraint between answers is found to be higher for the group with higher positions, even if only respondents are taken into account who answered all items.

The field of medicine

Interest, participation and consumption

It was hypothesized that there is no relationship between attitude competence and centrality on the one hand and social position on the other. This hypothesis was based on the assumption that, unlike on the field of politics, people's interest in the field of medicine is not related to their social position. To verify this assumption, respondents were asked about their involvement in the field (see table 6.20).

Unlike on the field of politics, a significant relationship is only found for watching TV programs about health and illness. Respondents with lower positions are more engaged in this activity. Respondents from lower positions are slightly more interested in the field and

have more personal experience with serious illness. Having a medical profession (nurse, doctor, dentist), of course, rises with educational level and thus with social position. Talking and reading about medical problems is found slightly more often among the higher groups.

In sum, it can be concluded that interest, participation and consumption are not so strongly related to social position on the medical field as they are on the political field. Not unlike the political field, respondents with higher positions talk and read some more, while the respondents with lower positions watch TV more often.

Competence and centrality

Although the social position of the respondents does not seem to be strongly related to the involvement in the field, respondents with lower social positions have significantly less *knowledge* about medicine (table 6.21). Those with lower positions have especially little knowledge about concepts used in the field: they are even below chance level here. Their knowledge of ideological viewpoints in the field is a little better. Those with a higher position give correct answers to about two-thirds of all questions on all tests.

Contrary to the hypothesis, there also appears to be a significant relationship between attitude *competence* and social position: the lower one's position, the less competent one feels. This is true for both the mean number of items people have thought about and the percentage of respondents who claimed to have thought about all items. An analysis showed that this relationship between competence and position exists on all items, except 14 (study at university), which was answered by almost all respondents. The differences are somewhat greater for the items indicative of the ideology of alternative medicine (items 12, 13, 15 and 20).

There is no significant difference in attitude *crystallization* as measured by the mean individual correlation between line and number responses. The higher group has a slightly higher mean, which is closer to the mean on the sound task (mean r was .90). Attitude *constraint* is not related significantly to social position either if attitude extremity is specified as a covariate in the analysis of variance.

This pattern of attitude competence and centrality is more or less the reverse of the pattern on the political field. On the political field there were no differences in competence, but marked differences in crystallization and constraint. This finding was interpreted as resulting from the high pressure to give answers, even if people have no opinion about the questions. Competence on the medical field rises with social position, but no differences are found in crystallization and constraint. This finding might indicate that respondents answered questions only if they had rather clear opinions about them. The pressure to give answers is possibly less great than on the political field, which might reflect the differences in attributed social competence on the two fields.

In sum, it can be concluded that knowledge and attitude competence rise with social position, contrary to the hypothesis. However, for those respondents who answered the questions, the reliability and constraint of these answers are not related to social position, confirming the hypothesis.

Table 6.20 Interest, participation and consumption on the field of medicine by social position

		interest	participation					consumption	
% yes	N		medical profession	serious illness	alt.med.	union member	talks	reads	TV
social position									*
lower	23	83	0	78	22	9	65	61	70
middle	47	77	15	64	40	0	75	77	55
higher	27	77	22	57	30	8	81	73	35
total	97	78	14	65	33	4	74	72	53

* chi2 (2 d.f.) with p<.05

Table 6.21 Knowledge of medicine by social position

		names	concepts	ideology
means	N	known	known	known
social position		**	**	**
lower	23	4.0	2.8	5.2
middle	47	5.6	4.8	6.3
higher	27	6.9	6.7	6.9
total	97	5.6	4.9	6.2

** F-ratio in analysis of variance with p<.01

Table 6.22 Attitude structure on the field of medicine by social position

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
social position		*	**			
lower	23	5.5	35	.76	.31	0.69
middle	47	6.2	57	.74	.42	0.91
higher	27	6.5	78	.86	.19	0.94
total	97	6.1	58	.78	.34	0.89

* F-ratio with p<.05; ** chi2 (2 d.f.) with p<.01

1 *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=56); higher values indicate less constraint

Table 6.23 Attitude constraint on the field of medicine by social position

		11	12	17	14	15	16	13
		gift of healing	message illness	reincar-nation	science negative	visit alt.healer	scientific proof	study at university
standard deviation								
lower and middle		1.7	1.4	1.5	1.2	1.4	1.4	1.5
higher position		1.7	1.6	1.6	1.3	1.2	1.2	1.3
pearson r								
11	gift of healing	-	.52*	.39	.12	.23	.19	.21
12	message illness	.44**	-	.58**	.44*	-.25	.29	-.27
17	reincarnation	.35*	.46**	-	.59**	-.28	-.01	-.16
14	science negative	.15	.77**	.48**	-	-.54*	-.26	-.21
15	visit alt. healer	-.58**	-.51**	-.10	-.36*	-	.26	.77**
16	scientific proof	.36*	.23	.41	.27	-.07	-	.38
13	study university	.35*	.08	.53**	.23	.09	.69**	-

note: * p<.05; ** p<.01
respondents with lower and middle social position (N=35) below the diagonal; mean r = .23; mean absolute values r = .40
respondents with higher social position (N=21) above the diagonal; mean r = .17; mean absolute values r = .36

Relationships between items

Table 6.23 presents the correlations between the items for the combined groups with lower and middle positions (N=35) and for the group with higher positions (N=21), but only for those respondents who answered all questions. All 'alternative' items were recoded so that higher scores always indicate more agreement with orthodox medicine.

The pattern of positive and negative correlations is somewhat different for the two groups. For the respondents with lower positions, only item 15 (visits to an alternative healer) is negatively associated with other items. Besides, if respondents agree with an item on alternative medicine, they disagree with items on orthodox medicine. For those with higher positions, alternative and orthodox medicine are more or less complementary. Only item 12 (gift of healing) is associated positively with all other items, indicating that it is seen as a concomitant of alternative and a negative attribute of orthodox medicine. These different patterns are caused, however, by the fact that some respondents in the more involved group have medical occupations. If they are left out of account, only the correlations of item 15 (visit healer) are negative (except for one small coefficient of -.07 between items 23 and 27), as in the case of the respondents with lower positions.

As regards the size of the coefficients, they are sometimes higher for the lower group, sometimes for the higher group. The mean correlation coefficients do not differ much (lower group .23, higher group .17), even if the mean is calculated for the absolute values of the coefficients (lower .40; higher .36). Since differences in standard deviations do not follow the pattern of higher and lower coefficients, the differences in correlational coefficients cannot be attributed easily to differences in variance.

In sum, constraint is about equal for respondents in different social positions, as was expected.

Conclusion

In this section, the hypotheses were tested that respondents with lower social positions are less competent to answer items on politics, and that their attitudes on politics are less central. Furthermore, the hypothesis was tested that on the field of medicine no differences in attitude competence and centrality exist for respondents with different social positions.

In support of the assumptions, interest, participation and consumption on the political field rise with social position, although the lower groups have their own means of consuming and participating (TV, unions, actions). On the medical field, there are no clear differences in involvement.

No differences in competence were found on the political field, contrary to the hypothesis. Differences in the expected direction do exist with regard to knowledge, crystallization and constraint. On the medical field knowledge and attitude competence rise with social position. Crystallization and constraint on the medical field were not related to the social position, as was expected. It was hypothesized that on the political field the pressure to give answers, even if one does not have a central attitude about the question, was rather high, whereas on the medical field it was lower. This finding supports the line of reasoning developed in chapter 4, that the competence to judge political issues is

attributed to all citizens on the political field, so that they all feel obliged to answer questions, whereas on the medical field patients are not attributed the competence to judge medical practices and feel free to leave items unanswered if they do not have an opinion about them.

6.6 Attitude structures and sex

On the political field men were expected to be more competent and to have more central attitudes than women, since they are assumed to be more interested and involved in the field. On the field of medicine however, it was asserted that interest and involvement in the field will not show such contrast according to sex. Therefore, men and women are not expected to differ in the characteristics of their attitude structures with regard to medicine.

The field of politics

Interest, participation and consumption

To assess whether the assumption is correct that men are more involved in politics, the answers on the questions about interest, participation and consumption are reported in table 6.24. Men say they are interested in the political issues they were asked about more often than women. Furthermore, they are more often members of a union and they participate more often in political actions. They also read about politics in the papers more often. All these differences are significant. Furthermore, there are some non-significant differences on the items about political parties: men have a specific preference for a political party slightly more often and they vote slightly more often. They also talk about politics somewhat more often than women. Women only score a little higher on TV-watching.

In sum, the assumption that men take a greater interest in politics is justified.

Competence and centrality

Men have significantly more *knowledge* about parties, politicians and ideologies than women (table 6.25). As regards attitude *competence*, it can be seen that men said they had not thought much about the items less often than women. An analysis showed that this is true for all items. About two-thirds of the men answered all questions and less than one half of the women did.

There is a difference of 0.10 in the average correlation coefficient between line and number scores. Although not significant, the difference indicates that the attitudes of men are slightly more *crystallized*. Men are closer to the mean and standard deviation on the sound task (mean=.90; sd=.14) than women.

The standard deviation across z-scores is equally high for men and women, indicating that they do not differ in attitude *constraint*, although the extremity of the answers, which was found to attenuate the constraint measure, is specified as a covariate in the analysis of variance.

Table 6.24 Political interest, participation and consumption by sex

		interest	participation						consumption	
% yes	N		party affiliation	party voting	party member	union member	action	talks	paper	TV
sex		*				**	*		*	
male	48	83	77	85	6	40	30	81	79	75
female	53	63	69	78	4	12	10	75	61	80
total	101	72	72	82	5	26	19	78	69	77

* chi2 (1 d.f.) with p<.05; ** chi2 (1 d.f.) with p<.01

Table 6.25 Political knowledge by sex

		parties	politicians			ideology
means	N	known	name	party	function	right
sex		**	**	**	**	*
male	48	5.6	3.7	3.0	2.7	6.5
female	53	4.1	2.8	1.9	1.6	5.1
total	101	4.8	3.2	2.4	2.1	5.8

* F-ratio with p<.05; ** F-ratio with p<.01

Table 6.26 Attitude structure on the field of politics by sex

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
sex		*	**			
male	48	6.4	67	.82	.26	0.77
female	53	5.7	42	.72	.39	0.79
total	101	6.0	53	.77	.34	0.78

* F-ratio with p<.05; ** chi2 (1 d.f.) with p<.01

1 *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=51); higher values indicate less constraint

Table 6.27 Attitude constraint on the field of politics by sex

	1	2	3	4	5	6	10
	unem-ployment	social security	privati-zation	develop-ment aid	apartheid	income differences	multi-nationals
standard deviation							
men	1.1	1.0	1.3	1.1	1.3	1.2	1.3
women	1.0	1.1	1.1	1.2	1.1	1.1	1.4
pearson r							
1 unemployment	-	.46*	.43*	.10	.49**	.63*	.48**
2 social security	.22	-	.62**	-.19	.47**	.52**	.29
3 privatization	.55**	.04	-	-.31	.46*	.45*	.28
4 development aid	.52*	.15	.24	-	.30	.12	.11
5 apartheid	.35	-.17	.29	.40	-	.62**	.56**
6 income differences	.33	.11	.73**	.15	.21	-	.78**
7 multi-nationals	-.40	.39	-.23	-.20	-.38	-.14	-

note: * p<.05; **p<.01
women (N=22) below the diagonal; mean r = .17; mean absolute values r = .31
men (N=29) above the diagonal; mean r = .39; mean absolute values r = .43

In sum, the hypotheses were supported that men have more knowledge, are more competent, and have more crystallized attitudes. There were no differences between men and women on attitude constraint.

Relationships between items

Constraint between items is reported in table 6.27 for those men and women who answered all items. A larger proportion of women than men have been excluded from this analysis. The correlations are higher for men than for women. The mean correlation for men is significantly higher than for women (.39 and .17, resp.; $t=2.38$; $p<.05$), and this is also the case if the absolute values are taken into account (mean is .43 for men, and .31 for women; $t=2.09$; $p<.05$). Since the variances are more or less equal for the men and women who claimed to have an opinion on all items, the differences are not explained by differences in variance.

In sum, it is found that men gave more constrained answers than women.

The field of medicine

Interest, participation and consumption

In the domain of health and illness, men were assumed not to be more interested and involved in the field of medicine than women. Table 6.28 presents the findings, on the basis of which we can check whether this assumption is right. There is only one significant difference: women read about medical problems more often than men. Women also more often say they are interested in the field, talk about it and watch TV programs about it. They visited an alternative healer slightly more often and occupy a medical profession slightly more often, although the men are physicians and dentists, and women nurses. Men have had experience with serious illness in the near family slightly more often.

In sum, the assumption is supported that there are no differences according to sex in interest, participation and consumption in the field of medicine as measured in this study. If there are differences, women are slightly more involved than men.

Competence and centrality

Since involvement in the field does not differ much, it can be expected that *knowledge* about the field does not differ much, either. Indeed, there are only very slight, insignificant differences between men and women (table 6.29). Men and women also appear not to differ in attitude *competence*, *crystallization*, and *constraint*.

In sum, it can be concluded that the hypothesis that there are no differences in attitude structure according to sex is supported: there are no differences in knowledge, competence, crystallization or constraint between men and women.

Table 6.28 Interest, participation and consumption on the field of medicine by sex

		interest	participation					consumption	
% yes	N		medical profession	serious illness	alt.med.	union member	talks	reads	TV
sex								**	
male	48	72	11	69	33	4	68	60	53
female	53	82	16	63	36	4	78	84	57
total	101	78	13	66	34	4	74	72	55

** chi2 (1 d.f.) with p<.01

Table 6.29 Knowledge of medicine by sex

means	N	names known	concepts known	ideology known
sex				
male	48	5.3	4.5	6.0
female	53	5.5	4.8	5.9
total	101	5.4	4.7	6.0

note: no significant differences

Table 6.30 Attitude structure on the field of medicine by sex

		competence		crystallization		constraint [1]
	N	mean	% all	mean	sd	mean
sex						
male	48	6.0	54	.77	.37	0.92
female	53	5.9	57	.76	.40	0.86
total	101	6.0	55	.76	.38	0.89

note: no significant differences

1 *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=56); higher values indicate less constraint

Table 6.31 Attitude constraint on the field of medicine by sex

	11	12	17	14	15	16	13
	gift of healing	message illness	reincar-nation	science negative	visit alt.healer	scientific proof	study at university
standard deviation							
men	1.9	1.7	1.6	1.4	1.5	1.5	1.7
women	1.5	1.2	1.3	1.0	1.3	1.4	1.4
pearson r							
11 gift of healing	-	.70**	.57**	.52**	-.31	.41*	.48*
12 message illness	.10	-	.64**	.80**	-.56**	.33	.21
17 reincarnation	.08	.26	-	.64**	-.42**	.30	.17
14 science negative	-.52**	.22	.32	-	-.67**	.19	.11
15 visit alt. healer	-.28	-.13	.17	-.08	-	-.06	.10
16 scientific proof	.17	.17	.09	-.27	.23	-	.87**
13 study university	.07	-.37*	.32	-.17	.60**	.38*	-

note: * p<.05; ** p<.01
women (N=30) below the diagonal; mean r = .07; mean absolute values r = .25
men (N=26) above the diagonal; mean r = .29; mean absolute values r = .47

Relationships between items

Nearly all of the correlations between the items for the respondents who answered all items are larger for men than for women. If the mean of the absolute values is compared the correlations for men are significantly higher than for women (.47 and .25, resp.; $t=3.14$; $p<.05$), otherwise the difference is not significant. Since the variance is higher for men on all items, this finding might be explained by differences in variance. This interpretation is supported by the finding that the individual measure of constraint, which is not dependent on variance, does not differ between men and women.

In sum, the finding that the inter-item correlations are higher for men can probably be explained by differences in variance.

Conclusion

It was hypothesized that men are more competent to express attitudes on politics, and that they have more central attitudes than women. On the field of medicine, it was assumed that men and women do not differ much in their involvement in the field and will therefore be equally competent and will have equally central attitudes.

On the field of politics, it is found that men are more interested in the field, participate more and consume more than women. They also know more about it. Men were found to be more competent and to have slightly more crystallized attitudes than women. Furthermore, although there were no differences on the overall measure of attitude constraint, men appeared to be more coherent in their answers on the political questions. The hypotheses are thus supported on the political field.

On the field of medicine, there are no differences in interest, participation and consumption according to sex, as assumed. Some minor differences indicated that women are slightly more involved than men. Men and women do not differ in their knowledge about the medical field. No differences were found on competence, crystallization and constraint. The inter-item correlations are slightly higher for men than for women, but these differences might be attributed to differences in variances. The hypotheses on the medical field are thus supported as well.

6.7 Interrelationships between involvement, social position and sex

The field of politics

On the political field it was found that more involved respondents are more competent and have more central attitudes. Respondents with higher social positions and also men are more competent and have more central attitudes. Since on the political field involvement appeared to be related significantly to social position and sex, the differences in involvement might be ascribed to social position and sex.

To assess the interrelationships between involvement, social position and sex an analysis of variance was carried out, in which these were specified as three independent variables[6]. The scores on the five knowledge tests, as well as the measures of competence,

Table 6.32 Three-way analyses of variance on the political field

	parties	politicians			ideology	com-	crystal-	constraint[1]
p-values	known	name	party	function	right	petence	lization	
social position	.00*	.00*	.00*	.00*	.00*	.10	.02*	.04*
sex	.00*	.00*	.00*	.00*	.02*	.02*	.03	.51
involvement	.00*	.00*	.00*	.00*	.24*	.13	.22	.02*
social position, sex	.71	.05	.42	.58	.98	.71	.52	.57
soc. position, involvement	.41	.22	.06	.06	.39	.00	.52	.29
sex, involvement	.66	.96	.81	.98	.97	.02	.25	.57

note: * also significant in one-way analysis ($p<.05$)

[1] *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=77)

crystallization and constraint were specified as dependent variables in 8 separate three-way analyses (see table 6.32 for the results). It was found that 18 out of the 19 differences which were significant in the three one-factor designs are also significant in this three-factor design. The significant relationship between involvement and the knowledge of ideological statements found in the one-way analysis is not significant in the three-way analysis. Out of the remaining 5 differences which were not significant in the one-factor designs, 4 differences are not significant in the three-factor design, either. The relationship between sex and crystallization, which was not significant in the one-way analysis, is significant in the three-way analysis.

Furthermore, except for the measure of competence no interaction effects occurred in the three-factor design. On the measure of competence, significant interactions occurred between involvement on the one hand and sex and social position on the other. This finding is caused by a low mean number of questions answered in the female group with middle involvement and middle social position. It is not clear why this group in particular often said they had not thought about the items. It can be concluded that, in general, the differences described in the previous sections are related independently to involvement, social position and sex.

The interrelations between involvement, social position and sex were further assessed by analyzing the differences according to social position and sex in the politically sophisticated sample. The findings should be taken with some caution, because the groups constructed in this sample of 33 respondents are very small. The means of the centrality measures indicate that, on all indicators of attitude structures except for the ideology test, women and respondents with lower positions in this elite sample are always at least as high on the measures of attitude structure as the men and the respondents with higher positions in the city sample. Within the sophisticated sample, the differences according to social position and sex are rather slight, again with the exception of the ideology test.

These findings indicate that the differences in attitude structures that were found are not caused by any limitations inherent in the cognitive apparatus of the lower-educated. Rather, the formation of central attitudes depends on the social processes related to the involvement and interest taken in the political field.

Table 6.33 Three-way analyses of variance on the field of medicine

p-values	names	concepts	ideology	com-petence	crystal-lization	constraint[1]
social position	.00*	.00*	.00*	.00*	.72	.48
sex	.48	.19	.17	.32	76	.73
involvement	.14*	.01*	.04*	.30	.32	.66
social position, sex	.67	.19	.35	.12	.50	.83
soc. position, involvement	.60	.78	.25	.60	.07	.68
sex, involvement	.03	.47	.77	.44	.53	.16

note: * also significant in one-way analysis ($p<.05$)
[1] *note*: analysis of variance with extremity as covariate for respondents who answered all questions (total N=63)

In sum, except in the ideology test, involvement, social position, and sex all contribute to attitude competence and centrality on the political field. If people are more interested in the field, the differences according to social position and sex tend to wane.

The field of medicine

Although involvement, social position and sex were not related significantly on the medical field, a three-way analysis of variance was also carried out for each of the indicators of attitude centrality on this field[9]. As can be seen in table 6.33, the pattern of significant differences found in these analyses is about the same as that of the significant differences found in the one-way analyses. The relation with involvement disappears only on the knowledge of names of physicians and healers.

An interaction effect between sex and involvement is found for knowledge of names of physicians and healers. This is caused especially by the much higher score of the more involved men in comparison to the score of the more involved women. However, most of these men are professionally involved in the medical field, whereas most of these women are patients of alternative healers. No further interaction effects are found.

In sum, it can be concluded that in general involvement and social position are independently related to attitude competence and centrality, and especially to knowledge and competence. As was also found in the one-way analyses, there are no sex differences.

7 SUMMARY AND CONCLUSION

Using the conceptual tools presented in the chapters 1 to 3, research hypotheses were developed in chapter 4. It was argued that the opinion survey is logocentric, i.e. it is based on a specific way of producing opinions, called logos. In the modality of the logos a person has personal opinions that are easily activated. These opinions are consistent with yardsticks which are reflexively accessible and adjusted to a cultural field. It was argued that not everyone is competent, socially or technically, to produce this kind of opinions. Two basic postulates of the survey might, then, be false: firstly, the postulate that everyone has an opinion on the questions asked; secondly, that all answers are given in the same way.

These postulates were subjected to an empirical study. With regard to the first postulate it was hypothesized that some respondents will answer they do not have an attitude. As for the second postulate it was hypothesized that other respondents will give agree/disagree answers in opinion surveys, but these answers will be given either at random (nonattitudes) or they will stem from structurally different attitudes (ranging from almost nonattitudes to highly central attitudes). Knowledge, accessibility, crystallization and constraint are the attributes of the cognitive centrality of attitudes, which were assessed in the present study. They were assumed to be independent of evaluative extremity, i.e. the degree in which people agree or disagree with an item. The second hypothesis stated that these different attributes of attitude structures will be interrelated. According to the third hypothesis differences in attitude structure were related to people's involvement in the field, and according to the fourth they were related to the social position and sex of the respondents. On the political field, having more central attitudes and feeling competent to express them were expected to be related to involvement, social position and sex, whereas on the medical field differences in this respect were only expected to be related to people's involvement in the field, but not to their social position or sex.

7.1 The empirical assessment of attitude structures

The questionnaire

A questionnaire was constructed to test these hypotheses (see chapter 5). The questions asked in the questionnaire dealt with issues that are important in either of the fields. In accordance with the dominant survey practice described in chapter 1, the items were formulated in an easy and neutral way. In other words: the issues are formulated in a specific language, neither the technical language of the field nor everyday language, but a specific 'survey dialect'. In a pilot study the selected items on each field were found to constitute a reliable and valid, rather homogeneous, scale.

As Bourdieu (1973b) asserted, the ability to give agree or disagree answers to closed questions is only minimal proof of the competence to produce legitimate opinions on a field. A person need not be able to recognize the specifically political relevance of an item to give an answer. If respondents were asked to formulate more elaborate responses, the differences in competence would become more apparent. Furthermore, people need not

have a reflexive grasp of the yardsticks they use before they can give constrained answers. As Converse (1964) explained, respondents may well give constrained answers because they know that issues belong together without having any contextual knowledge why this is so.

This certainly applies to the present questionnaire, since the formulation of the questions makes them rather easy to understand. Had the questions been asked in the technical language of a field, greater differences in competence would have become apparent. Furthermore, since only those items were selected which proved to constitute a rather homogeneous scale in a pilot study, it is to be expected that constraint among the answers will be rather high. Had a more arbitrary set of issues been chosen, it would have been more difficult for respondents to give constrained answers.

In sum, the questionnaire, which was designed in accordance with the paradigm of survey research, will minimize the chances of coming across respondents who feel they are not competent to express opinions from the logos about the questions asked them. Consequently, the findings will apply *a fortiori* to the more routinely constructed opinion polls.

Computerized magnitude scaling

The specific measurement procedure of magnitude scaling was used for two reasons. In the first place, the procedure incorporated two instruction tasks, the metric task and the sound task. These tasks were used to assess whether respondents were capable of using the instrument in a proper way. All respondents were indeed found to have this capacity, although some doubts arose as to whether respondents actually gave the ratio responses they were expected to give (appendix 4). The results of the instruction tasks closely followed the power function, which is known from magnitude scaling research. The regression bias for the line drawing modality and the variance in the regression coefficients of the power function on the individual level found in this study are not uncommon in magnitude scaling (Lodge, 1981a). Since other individual differences in the use of the instrument were very slight (appendix 4), the differences that were found in the measures of attitude structure cannot be attributed to differences in the competence to give magnitude judgments.

A second advantage of the magnitude scaling procedure is that two responses are obtained in slightly different ways, one by drawing lines and the other by estimating numbers. The correlation between the two answers, a measure of parallel-test reliability, can be used to measure attitude crystallization. Some interpretational difficulties connected with the assessment of crystallization on the basis of the test-retest reliabilities of answers given at different points in time, like true attitude change, are avoided.

The measurement procedure was computerized on the assumption that this facilitates measurement of attitude accessibility. Although the measure of attitude accessibility used in this study proved invalid, computerization had two more advantages. Firstly, respondents who did not carry out the instruction tasks correctly in an initial trial could repeat this task, so that every respondent was well practiced to give the magnitude responses they

were expected to give. Secondly, it was argued that computerization will enhance the quality of the data. A pilot study demonstrated that computerization of the magnitude scaling procedure had no negative consequences for the use of the instrument in comparison with a paper-and-pencil version.

In sum, all respondents proved to be capable of using the measurement instrument appropriately. Differences in the measures of attitude structures can, therefore, not be attributed to differences in the capacity to give magnitude judgements.

The empirical indicators

Different attributes of attitude structures were assessed: knowledge, competence, accessibility, crystallization and constraint. All measures were computed across the items on a field and are therefore generalized measures of competence and centrality. As assumed, these attributes of attitude structure were independent of evaluative extremity, although it should be noted that the measure of extremity that was used might indicate a response set to give extreme answers rather than the extremity of the attitude itself.

Knowledge, which is the most straightforward measure of cognitive centrality according to Converse (1970), was measured on each field by three knowledge tests. On the political field, these tests comprised knowledge about political parties, politicians and ideological statements. On the medical field questions were asked on knowledge of names of physicians and healers, the concepts they use and their ideological statements. Except for the ideology test on the medical field the knowledge tests proved to be reliable. On each field the tests were highly interrelated, indicating that there is one knowledge factor on each field.

Attitude *competence* was measured reliably by asking respondents whether they "had not thought much about the issue". The interpretation of the answer "I have not thought much about the issue" as a self-confessed nonattitude is validated by the relationship between competence and knowledge. In general, the proportion of "no opinion" answers was rather low, especially when compared to studies in the United States, which generally report about 25% "no opinion" answers (Schuman and Presser, 1981). Different explanations are possible. The level of competence might in actual fact be higher in the Netherlands than in the United States. On the other hand, the fact that the questions, especially on the political field, dealt with long-lasting ideological controversies may have had a boosting effect on the level of competence that was found or it may have put the respondents under greater pressure to give answers, even if they did not have a clear opinion about the item. Lastly, the specific filter that was used may not be as strict as it was found in previous studies (Bishop et al., 1983; Schuman and Presser, 1981).

The mean response time over items on a field did not prove to be a valid measure of *accessibility*, since it measured the time people needed to operate the computer rather than the accessibility of the attitudes[1]. No correlations were found between this measure and the other measures of cognitive centrality. Therefore, no further analyses were carried out on this measure.

The parallel-test reliability between line and number scores was used as a measure of attitude *crystallization*. Since the items are presented within a short time interval in one

session, people's memory might play a role. Although it is unlikely that people will remember the specific ratio given to an item, they might well remember whether they agreed or disagreed with it. And, indeed, the mean of the individual correlation coefficients was found to be rather high (about .78 on both fields). The parallel-test reliability might be a somewhat high estimate of crystallization, but the value is nevertheless lower than on the metric and the sound task, indicating that there are indeed differences in the crystallization of attitudes. The finding that the differences between respondents are rather large on the attitude task, and that they are significantly related to their social characteristics supports the validity of the measure. Furthermore, the measure was validated by its relationship to knowledge on each field and to attitude constraint.

Attitude *constraint* was measured in two different ways. On the individual level the measure developed by Barton and Parsons (1977) was used. This measure appeared to be attenuated by the extremity of the answers. For this reason, extremity was always specified as a covariate in the analyses of variance and it was partialed out in correlational analyses. When controlled for extremity, the measure proved valid on the political field because it related significantly to knowledge and crystallization. On the medical field the measure could not be interpreted in an equally straightforward manner, since there was less agreement about what issues go together: for some respondents alternative healing and orthodox medicine are complementary, whereas for others they are contradictory. Moreover, constraint was analyzed at the group level, on the basis of the correlations between the items. As explained in chapter 2, this measure is vulnerable to variance on the items. Since the measure of Barton and Parsons is independent of variance, these differences could be taken into account. The findings on both measures of constraint support each other well.

It was argued in chapter 2 that in the cognitive paradigm in attitude research it is necessary to distinguish the cognitive centrality of attitudes as an independent dimension of attitude structures. The centrality of attitudes, for example, plays an important role in the the relationship between attitudes and behavior, since this relationship is stronger for more central attitudes. Similarly, the centrality of attitudes is important in attitude change and biased perception. Although these psychological processes were not the object of the present study, it can be concluded that the answers given to the questions in the opinion survey do not have the same value and meaning from a psychological point of view.

In sum, except for accessibility, all attributes of attitude structures were successfully measured. Since all measures showed variance, it can safely be concluded, in support of the first hypothesis, that not all respondents have attitudes about the questions asked them and that answers stem from attitudes which differ in cognitive centrality, as was expected in the first hypothesis. The height of the means of the measures does not suggest, however, that many answers are completely random. As explained in chapter 2, the measures only reveal differences in degree of competence and centrality. It can also be concluded that the attributes of attitude structures are interrelated. They are independent of the evaluative extremity of the answers. Thus, the second hypothesis is also supported by the findings.

7.2 Attitude structures and socio-cultural structures

Although psychologists treat the differences in attitude structures mainly as individual differences, it was argued that these differences are related to social characteristics of the respondents, notably involvement, social position and sex, and to the cultural field. In this project the fields of politics and medicine were compared. The work of Bourdieu, which deals explicitly with the link between mental structures on the one hand and social and cultural structures on the other, was used to develop hypotheses for these relations.

The respondents

The questionnaire was presented to respondents who had been recruited from a random sample of the city register of the middle-sized city of Nijmegen (150,000 inhabitants). In addition, some respondents were recruited who were sophisticated either on the political field (active members of unions and parties), or on the medical field (regular visitors of an alternative healer), in order to carry out analyses on involvement. Except for a few respondents in the sophisticated samples, the respondents were between 40 and 55 years old.

Both the fact that respondents live in a middle-sized city and the fact that they are a middle-aged group is bound to have determined the levels of attitude competence and centrality that have been observed. On the political field, at least, the competence of younger people and of people living in larger cities is higher (Bourdieu, 1979). On both characteristics, the respondents in this survey will show more or less average levels of competence and strength. On the field of medicine, almost all respondents have had some experience of illness and doctors. Although not all experiences are equally intense, this is bound to influence the observed level of competence and strength. It was found in a pilot study that the attitudes on orthodox medicine were more central for a group of respondents with less education and more experience with illness (mean age 50 years) than for of a group of students, who had much less experience with illness and a mean age of 28 years (Westerhof, 1989a).

Although the findings relating to the social processes of recruitment should be considered with some caution (see section 5.4), it was observed that respondents with more economic resources cooperated in the survey more often. It was found that persons with less education and less income, and women admitted more often that they were not competent to participate in the study, especially because of a lack of political knowledge and opinions and because of a fear of computers. These differences in competence were closely mirrored by the social composition of the sophisticated respondents on each domain. And lastly, respondents who were socially more distant from the researcher and the university refused to cooperate more often. These findings are a first indication that the relations of social position and sex with competence are as expected.

It should, therefore, be stressed that the respondents constitute a specific subsample of the total number of persons asked to cooperate, one that is relatively high in competence and social position. As a result, the differences in attitude structures between the

respondents are bound to be less marked than they actually would have been if everyone had cooperated in the survey.

This also applies to the assessment of attitude crystallization and all the more to the assessment of constraint. Attitude crystallization was calculated only for those items that respondents answered questions about. Since they had been given the chance to state that they did not have an opinion, the least competent respondents were not included in the analysis of crystallization. The analyses on constraint were carried out for an even more competent group of respondents, those who claimed to have an opinion on all items on a field.

In sum, it can be assumed on the basis of the respondents' age and place of residence that their level of competence and centrality on the political field will be intermediate. Because of their age almost all of them have had some experience of illness, so competence and centrality will be rather high on the medical field. Furthermore, respondents from lower social positions refused to cooperate in the study more often than others. Since they also confessed not to be competent more often, as was the case with women, the differences in competence and centrality observed in this study will apply a fortiori to the population studied.

The field of politics

On the political field, it was hypothesized that competence and centrality will be related to involvement in the field, to social position and to sex. Respondents were classified in three groups according to their social position, their educational and occupational level. Respondents were also classified into three groups according to their involvement in the political field. Respondents who took up an active position in the political field by means of party membership, union membership or participation in political actions were classified as more involved. This group can be seen as a political elite. However, it is only a local elite, which is likely to be more similar to the mass of the city sample than a national political elite (Converse, 1974). The remaining respondents, who correspond to the city sample (except for 8 respondents classified as more involved) were classified in two groups: respondents who are passive members of parties or unions, or who participate only occasionally in political actions were classified as moderately involved, whereas all others were seen as less involved. The construction of groups was validated by the findings that more involved respondents are more interested in the field, participate more often in the political field and consume political products more often. These were only differences in degree, however: in the least involved group respondents were not totally uninvolved. Furthermore, the different groups are rather heterogeneous.

The hypotheses that differences in attitude competence and centrality are related to involvement, social position and sex are supported by the findings of this study: less involved respondents, respondents with lower social positions and women are less competent and have less central attitudes and possibly more nonattitudes. In section 6.7, it was found that the effects of involvement, social position, and sex exist independently. Only the relationship between involvement and knowledge of ideology disappeared in the

more complex analysis. Although not all differences found are significant, they are very systematic and all point in the same direction, so that they are unlikely to be based on chance. On "no opinion" answers, the differences are rather slight. This can probably be explained, on the one hand, by the characteristics of the items, which dealt with long-lasting ideological controversies. On the other hand, it may be explained by the fact that less competent persons refused to participate in the study.
Furthermore, the finding that respondents with lower social positions in the sophisticated sample are higher on competence and centrality than the respondents with higher social positions in the city sample indicates that the differences in attitude structures that were found are not caused by any limitations inherent in the cognitive apparatus of the lower-educated. Rather, the formation of central attitudes depends on social processes related to involvement and interest taken in the political field.

In sum, the hypotheses on the political field are supported in this study.

The field of medicine

The field of medicine was incorporated in this study for two reasons. Firstly, nearly all the studies in the Converse debate were carried out on the political field, which has led to much confusion over political and scientific interpretations of the findings. Secondly, the relation between the field and the public was expected to be different on the medical field from that on the political field, so that it would lend itself better to a study of the social processes involved in acquiring central attitudes. It was hypothesized that there are no differences in attitude competence and centrality according to social position and sex on this field, but only according to involvement.

To measure the effects of involvement, three groups were constructed: the sophisticated sample on the medical field and the respondents with medical occupations were classified as more involved, although this is a very heterogeneous group. Respondents with personal experience with serious illness were classified as moderately involved and the remaining respondents as less involved. Again, the classification was validated by the level of interest, participation and consumption, although the differences are only differences in degree.

As expected, more involved respondents have more knowledge about the medical field. However, the relationship between involvement and knowledge of medical names disappeared in the three-way analysis. As on the political field, attitude competence and crystallization rise with involvement, but not significantly. Attitude constraint appeared to be different for more and less involved. The more involved respondents saw alternative and orthodox medicine as complementary, whereas less involved respondents saw them as contradictory at the ideological level, but not at the practical level. It was argued that having experience with illness leads to people developing more qualified attitudes about medicine, instead of following the ideological division in the field. The complementary ideologies of different types of medical care were also found in other studies. Furthermore, it was argued that the differences are at least partly due to the rapid developments in the medical field, where alternative medicine is becoming more and more legitimate.

There appeared to be no relationship of involvement with social position and sex in the medical field. Respondents differing in social position and sex do not differ much in interest, participation and consumption, although respondents with higher social positions talk and read about medical problems somewhat more. These findings support the argument that involvement in the field is distributed in a different way on the political and the medical field.

No differences according to sex were found in attitude competence and centrality, as expected. Contrary to the hypothesis, respondents with higher social positions have more knowledge about medicine and more often give answers on the medical items. No differences according to social position were found in crystallization and constraint. It was argued that the pressure to give answers on the medical field is less great than on the political field, especially for the items about alternative healing, which dealt with relatively new ideological statements on the medical field. An analysis of variance specifying involvement, social position and sex as independent factors showed that social position and involvement contribute independently to the differences in competence and centrality.

In sum, the assumption that involvement and interest are distributed differently on the medical field is supported by the findings. Furthermore, the hypotheses that attitude competence and centrality are related to involvement in the field but not to sex are also supported. Contrary to the hypothesis, respondents with higher social positions have more knowledge about the field, and indicated more often that they had thought about the issues they were asked about. However, in support of the hypothesis, no differences in crystallization and constraint were found for those respondents who gave answers.

7.3 Logos, social competence and the opinion survey

It was empirically shown, then, that the two basic postulates of opinion surveys are not correct: not all respondents have attitudes on the questions that are asked and not all answers reflect central attitudes. Respondents appeared to differ in the competence to produce opinions on the basis of the logos, even though the task to be fulfilled required only a minimal level of competence. Criticism of the logocentrism inherent in the survey was thus shown to be justified. Instead of the proportions of respondents giving "agree" or "disagree" answers, the most important findings of a survey are whether respondents give "no opinion" answers, and whether their answers are derived from central attitudes or are more like nonattitudes in disguise. Therefore, respondents should always be made to feel free to admit that they do not have an opinion on the questions asked them. Furthermore, the centrality of the attitudes from which answers are derived should always be measured. If reliability coefficients are used for this purpose they should be regarded as an attribute of the answers, depending on both the respondent and the question, instead of an attribute of the measurement instrument (see chapter 2).

The competence to produce opinions from the logos appeared to be related to social and cultural processes and should not be seen, therefore, as a purely individual cognitive capacity. On both fields, greater involvement in the field is associated to greater competence, independent of social position (and thus of education), indicating that people

only develop attitude structures adjusted to the field if they become more involved in that field. This finding is supported by the few studies on attitude formation by social psychologists, who found that direct personal experience, personal involvement, 'repeated exposure', systematic cognitive elaboration, personal responsibility and accountability, and conflicts between important values (see section 2.2) all play a part in the acquisition of more central attitudes. Greater involvement in a field will be related to these factors in the formation of attitudes.

However, it is also found that the processes leading to involvement and interest depend on the cultural field. Respondents with higher social positions and men develop central attitudes about politics more often, whereas this relationship is less clear on the medical field. The findings clearly support the line of reasoning that the distribution of social competence is different on the two fields, although respondents with more education and higher occupations always talk and read more about relevant problems in the field, have more knowledge and feel more competent to express opinions. Personal interest and experience are organized socially in a different way on the two fields.

Furthermore, because of a different balance of power in the ideological division between orthodox and heterodox on the two fields, experience has a different effect on the organization of attitudes on each field. Whereas the answers given on the political field closely follow the long-established ideological divisions between left and right, and the more so when respondents are more involved, the effect of personal experience on the medical field is that people no longer answer according to the contrasting ideologies on the field but according to their appreciation of the different types of medical care as they experienced them personally.

Attitude structures should therefore not be studied only as individual possessions, as is done by mainstream social psychology, which sees attitude structures as individual cognitive representations, but always in relation to the social and cultural structures in which they developed. This is true for the formation and organization of attitudes as well as for mastery of the logos. As a consequence of the dynamics of society and specific fields, the competence to produce opinions based on the logos is not evenly spread in the public.

Until now attention was paid in particular to the question to what degree people are competent to produce opinions from the logos. It should also be asked, however, how people can otherwise relate to social reality if they do not have opinions adjusted to a field and constrained by reflexively accessible yardsticks. In the epilogue, the attention will be focused on this question.

EPILOGUE

In the present study it became clear that not everyone is competent to produce opinions in accordance with reflexively known yardsticks which are legitimate in a field. Other ways of producing opinions have until now been given only little attention in this book, so that it only became clear in what way people do *not* have attitudes about a cultural field. In this chapter an attempt will be made to formulate a theoretical and methodological perspective on how to study other ways of producing opinions. However, empirical studies are necessary to elaborate on this perspective and to judge its value. The first section of this chapter will focus on the question how people who are not competent to produce opinions from the logos can still produce opinions otherwise. In the second section, it will be argued that in order to understand these different ways of producing opinions it is necessary to make a shift in theoretical perspective from the cognitive attitude psychology discussed in the second chapter to a discursive perspective which accounts for the constitution of meaning in talk. In the third section, some methods which can be used to study other ways of producing opinions will be discussed. In the last section, an explicit account will be given of the perspective on the relationship between theory and method as it has been used in this book.

8.1 Ethos and logos

In contrast to the logos, Bourdieu describes a principle of production of opinions which he calls *ethos*. Bourdieu (1984b, p.461) explains: "Between ethos and logos, practical mastery and verbal mastery, there is a radical discontinuity[1]. There is no necessary link between the practical mastery which can guide everyday practice, including all its (objectively) political aspects, without ever being made explicit or, still less, systematically conceptualized, and the symbolic mastery of experience which is expressed in discourse socially recognized as political and which presupposes the bracketing of all direct, exclusive reference to the concrete particularity of a situation." The ethos and the logos imply different relations towards social reality. The logos is a relation of distance, explication and reflection on everyday practice and experience, whereas the ethos is a relation of engagement in practice.

In order to gain a better understanding of the ethos, Bourdieu's theory of practice will be presented briefly as far as it relates to the production of opinions[2]. The concept of habitus, which is described by Bourdieu as a generative principle of practices, will be explained first. Second, the logic of practice is discussed as the way habitus function.

Habitus

Habitus are described by Bourdieu as structures of perception, appreciation, thinking and practice. Bourdieu describes the structuralization of habitus by practice and experience as inculcation, embodiment[3] or as a social birth in a culture or a field. While not the result of an explicit structuring intention, a habitus becomes structured because the material and

social environment in which it is acquired is structured. For example, the social space of class positions, which structures modern society according to divisions like noble/base, distinguished/vulgar, official/unofficial is reflected in all the habitus which are part of this society (Bourdieu, 1979)[4].

These societal divisions which structure habitus are an example of the principles employed in the modality of the ethos. Hence, Bourdieu (1976a, 1979) found in a study on the perception of politicians that such basic schemes as strong/weak, higher/lower and noble/base were applied. Furthermore, the opinions from the ethos, which are not structured in terms of the ideological divisions of a field, reflect the specific experience and practice associated with a person's social position and trajectory, as Bourdieu (1993a) and his colleagues found in a series of interview studies.

The structuralization of habitus by practice and experience has three consequences. Firstly, since the habitus is acquired in a structured environment, practices and opinions are constrained. However, in contrast to the dominant paradigm of attitude psychology, it is not necessary to assume a need for consistency or an effort to achieve consistency to account for this constraint. Secondly, if people live in similar material and social conditions of existence (i.e. if their social positions are comparable), their habitus will also be comparable and alike. Therefore, people with similar positions will have similar viewpoints, as a result of the structuring experiences they have undergone. In this sense, opinions are not 'very personal', but always related to the conditions which brought them about, although it may become a habitus to present attitudes as a personal achievement. Thirdly, since habitus are acquired without explicit intentions, the principles of the ethos are applied without conscious reflection.

The logic of practice

The structured structures of the habitus are predisposed to function as structuring structures. In other words, mediated by habitus people are always engaged and interested in the practice of everyday life. This is captured by the term 'sens pratique', which is often translated as 'logic of practice'. In the logic of practice the principles employed by habitus are not reflected upon, because there are at least two constraints to reflection and rationality in the situated practice of everyday life. The first constraint stems from the fact that habitus are already structured. Since a habitus reflects the material and symbolic conditions of existence in which it was acquired, there is an immediate concordance between a habitus and a field, that makes it possible for a habitus to generate products in accordance with the requirements of the field in an implicit anticipation of material or symbolic profit. Hence, opinions, like all other linguistic expressions, are always 'euphemized', i.e. they are implicitly and unconsciously self-censored via the process of anticipation of symbolic or material profit (Bourdieu, 1982a). Practices are therefore to a certain extent always an objectification and reproduction of the culture subjectively embodied in the habitus[5].

Secondly, habitus are not conditioned to the extent that all choice is impossible. Since the logic of practice is not merely the execution of rules, it is characterized by fuzziness and

uncertainty. Since practices are constrained by time, it is impossible to retreat from action to reflect on all alternatives and their consequences. Time is thus the second constraint on reflection and rationality.

Hence, Bourdieu sees practical logic as a continuous, strategic improvisation, in which one tries to do the right thing at the right time. In other words, practical logic implies a feel for the game or an implicit anticipation of the social value of one's products (see also chapter 3). Instead of the reflexivity of rationalism and logos, Bourdieu (1990) speaks therefore of reflection in action.

Conclusion

It thus becomes clear how opinions are produced in ways other than from the logos[6]. Opinions from the ethos are not the kind of personal opinions derived from explicit principles which are legitimate in a field. Rather, they are opinions which stem from everyday experience, expressed in everyday language without a need for reflection on the principles of their production. They are consistent without being the product of a need for consistency and an expression of cultural meanings rather than 'very personal' achievements. It should be noted, however, that producing opinions from the logos can also become a habitus: these kinds of opinions also result from practical improvisation, implicitly directed towards a distinctive profit.

8.2 The social practice of presenting attitudes in talk

In order to understand the production of opinions from the ethos it is necessary to make a shift in the theoretical perspective of the cognitive psychology of attitudes used until now. Since the principles which are employed in the modalities of ethos and logos differ in content, it will be clear that the study of opinion production is a study of meaning. However, like cognitive psychology in general (Bruner, 1990; Shweder, 1984a), the cognitive psychology of attitudes discussed in chapter 2 has paid little attention to the study of meaning. Its main objects of study are the information-processing characteristics associated with attitude structures. As can be seen from the empirical indicators of attitude centrality which were derived from this perspective, the study of information processing is indifferent to content. This lack of interest in the study of meaning is also illustrated by the use of stimuli which are largely stripped of their meaning, reduced to attitude objects with no preexisting social meaning, like the 'neutral' stimuli in the opinion survey. The basic assumption appears to be that the same objects mean the same to everybody in the same way. However, as was argued before, even if respondents give reliable and constrained answers, they may arrive at these answers in different ways.

Some social psychologists, who are critical of this cognitive paradigm in attitude psychology, have formulated another perspective on attitudes, which does account for meaning[7]. As a starting-point of this perspective Potter and Wetherell (1987, p.51) argue that "far from the object of thought being a simple already present entity, the object is formulated and constructed in the course of doing evaluation". This constitution of the meaning of attitude objects is studied in everyday speech. Proceeding from this

perspective, Lalljee, Brown and Ginsberg (1984, p. 239) redefined attitudes as "expressive communicative acts which occur and can be observed as features of situated social encounters"[8]. Thus, instead of the *representation* of attitudes in long-term memory, attention will be focused on the *presentation* or expression of attitudes in speech (cf. Welten, 1991).

Discursive psychology

The study of the presentation of attitudes in talk is based on a number of theories about the use of language. In accordance with Austin's (1962) speech act theory, language should not be seen here as an abstract system of propositions used for describing reality[9]. All utterances have the function of bringing something about. This is most apparent in commands such as "open the window", which specify what is to be done, or in institutional, ceremonial formulae, such as: "I hereby proclaim you doctor in the social sciences". On a broader level, talk is seen as the constitution of versions of reality, which people try to make true (Potter and Wetherell, 1987). Thus, in speech act theory, language is attributed a performative or constitutive rather than a mere descriptive function[10]. Language use, or *discourse*, thus becomes a consequential practice in its own right, which is studied in discursive or rhetorical psychology[11].

Applied to the domain of attitudes, the expression of attitudes in talk is not seen as a mere description of the reality of some internal state. Instead, reality and attitude objects are constituted, as a person presents attitudes in talk. For two reasons at least, attitudes are not individual states or characteristics but social accomplishments. Firstly, Billig (1991) argues that the expression of attitudes always takes place in a wider social controversy and debate. He argues that the expression of attitudes is sprinkled with contradictions, controversies, counterattitudes and counter-evidence. For example, people very often use phrases like "on the one hand I like..., on the other I don't like it", or "I'm not a racist, but...". Billig et al. (1988) term these kinds of expressions found in everyday life "dilemmas". These dilemmatic aspects of the presentation of attitudes pose a threat to the concepts of a true attitude and of attitude consistency which prevail in the cognitive attitude psychology.

Since expressing an attitude always implies taking a position in a social controversy, the meaning of the attitude is not determined by its intrinsic structure, but by its relation to the controversy, much like the meaning of an opinion relates to the state of the field in Bourdieu's theory. This implies that the meaning of an attitude is never definite, but that it changes with the situation in which it is expressed. Billig (1991) refers to this as the implicit meaning of an attitude, which comes to the surface once the situation changes. Attitudes are never completely finished products, therefore, and are adapted each time to novel situations. This poses a further threat to the idea of a 'true' attitude as it is used in attitude scaling and opinion surveys.

As the second reason why attitudes should be conceived of as social accomplishments it is important to realize that the presentation of attitudes in talk is always a social process: one always talks to someone else. Even in private situations, where people talk to

themselves, they still take into account the supposed or imagined reactions of others (Billig, 1987, 1991; Hermans and Kempen, 1993). To make certain accounts of reality acceptable and to persuade others of one's attitudes[12], they have to be complemented with arguments. In other words, the performative function of attitudes expressed in discourse does not speak for itself, but has to be realized through argumentation. Discursive psychology is mainly concerned with the structure and function of arguments in discourse. Building partly on classical studies of rhetoric (Billig, 1987), this theory distinguishes different discursive or rhetorical devices which are used to accomplish the performative function of discourse[13].

Stories

A specific discursive device that deserves some more attention here is the story. Edwards and Potter (1992) show that stories have a rhetorical function: as a kind of 'thick' description, they can contribute to the acceptability of an account. Stories have been given some attention by narrative psychologists (e.g. Sarbin, 1986; Bruner, 1990), who present the study of stories as a way of studying the constitution of meaning[14]. Stories are important here, because they are built from experience, in accordance with the production of opinions from the ethos: they are a public and shared narrativization of personal experience. The process of narrativization is captured by the concept of mimesis, which Bruner borrowed from Aristotle: "mimesis is the capturing of 'life in action', an elaboration and amelioration of what happened" (Bruner, 1990, p.46).

The overall configuration of the elements of a story is described as a plot or fabula, which contains an Actor, an Action, a Goal, a Scene, and an Instrument (Burke (1945), cited by Bruner (1990)). Stories are woven around Trouble. In everyday life 'Trouble' implies that stories are invoked whenever experiences differ from the normal course of action (Bruner, 1990). The main function of a story is to make such a deviation from a normal pattern comprehensible and to bring the abnormal back to the normal. Since normal patterns are always constituted within a certain culture, stories are always informed by that culture and, therefore, social accomplishments.

Conversations

A point that has been given relatively little emphasis in discursive and narrative psychology is that stories and argumentation are conjoint accomplishments in the course of conversations: "it takes work to start and to end them" (Moerman, 1988, p.82). In conversation analysis (a branch of social studies initiated by Harvey Sacks) conversations are studied as the socially organized sequences in which talk occurs in social interaction. Different sequences are identified that describe the structure of conversations. Phenomena such as how a conversation is begun, how speakers take turns, how their speech overlaps, how laughter functions in a conversation are studied (see Moerman, 1988 for a review). Conversations are exactly the kind of regulated improvisations that Bourdieu analyzes in more abstract terms in his theory of practice. Conversation implies, for example, a sequencing of talk restricted by time. Specific instances of conversations are interactive

processes which are, most often, undeliberate, and unanticipated. Hence, meaning is enacted in conversations instead of reflected upon.

As a more concrete description of the practical logic of the habitus, the analysis of conversation (at least as Moerman (1988) presents it) also takes into account the power relations between the people that participate in a conversation. Power is thus seen as situated and interactive and accomplished time and time again. Consequently, power is found, for example, in conversational elements like who opens up a conversation, who closes it, who has a legitimate right to ask questions or give instructions, who may interrupt the other etc. Similarly, some conversations do not lend themselves to storytelling, such as conversations between patients and doctors or standardized survey interviews (Mishler, 1986). For individuals with the right symbolic capital it is not even necessary to complement their attitudes with arguments to have them accepted. On the other hand, conversational elements can also be used in order to establish co-operation or to show that people are single-minded, like in laughing together, or in helping the other find the right words to express himself.

Conclusion

Instead of the study of the cognitive representation of attitudes in long-term memory which dominates contemporary social psychology, the focus was shifted in this section to the presentation of attitudes in talk, which is seen as a consequential practice in itself. Discursive psychologists have directed their studies mainly to the power of arguments or rhetoric in discourse, whereas narrative psychologists have studied the structure and functions of the story. However, as both Bourdieu's theory of practice and conversation analysis remind us, rhetoric and storytelling should always be studied within the broader social structures in which they are enacted. Instead of the ever-present characteristics of attitudes in talk, as psychologists are inclined to see them, they should be seen as modalities that can only become manifest in connection with a specific situation with specific power relations.

In sum, the study of talk, and the way meaning and power are implied in talk, requires a social and cultural approach in addition to a cognitive psychological study: the participants in conversations should not be seen as mere recipients of information, but as active participants in the enactment of meaning (see also Moerman, 1988).

8.3 In search of other methods

Since the opinion survey was characterized as logocentric, it is necessary to look for other methods which are more adequate to study opinions which are produced in the modality of the ethos. In this section some methods that can shed light on the practical schemes of the ethos are discussed, assuming that these schemes are enacted rather than reflected upon.

The opinion survey and the ethos

First of all, it might be asked whether it is possible to construct opinion surveys that are closer to the modality of the ethos. It can be concluded from the theoretical perspective on the production of opinions from the ethos that there are at least two possible ways to construct survey questions that are closer to the practical schemes of the ethos. First, instead of the items on legitimate issues in a cultural field, items can be formulated about personal experience and practice. Second, to assess the practical schemes of the ethos that are not specifically adapted to a cultural field, one might think of items and answer options that rely less on the explication and reflection inherent in the logos. In this respect, techniques like the semantic differential are closer to the ethos. Using the semantic differential, in which concepts are rated on lists of adjectives, Osgood, Suci and Tannenbaum (1957) revealed that, besides an evaluative factor (good-bad), there were two other semantic principles, potency (strong-weak) and activity (active-passive), which can be interpreted as the kind of practical yardsticks implicitly employed in the ethos.

However, even if these kinds of items and answer options are indeed closer to the ethos, it should never be assumed a priori that all respondents have equally central attitudes about these items. Furthermore, surveys have two inherent restrictions when applied to the study of the presentation of attitudes in talk. First, as regards the constitution of meaning, it is assumed that all respondents who give reliable answers apply the same meaning to the items. As a result, surveys always project only one way of attributing meaning on all respondents, whereas it is clear by now, that even respondents with more central attitudes can make sense of the same question in a lot of different ways.

Second, surveys always seek to measure the 'true' characteristics of the respondents (see Chapter 1). However, it became clear in the previous section that the idea of a true attitude is questionable, since the production of attitudes is always related to the situation in which they are produced. Since a neutral situation is always created to measure 'true' attitudes, only private attitudes are asked for in surveys. The strategies of presentation and persuasion, which are always related to the social situation and the people one is talking to, can never be the object of study in a survey[15].

Because of these two restrictions inherent in survey research with closed questions, other methods of assessing attitudes as they are presented in talk should be looked at.

Open questions in surveys

In contrast to closed questions, open questions can reveal the differential ways of constituting attitude objects. The scarce evidence on open questions in surveys shows that open questions can be constructed that allow respondents to express more central attitudes (Converse, 1964; Geer, 1988, 1991) in a language that need not be the same as the one employed by a researcher (Janssen, 1990; Van Holsteijn, 1993). Furthermore, it has been found that open questions can indicate how respondents understand the concepts asked about and how they use these concepts in their own argumentation (Pijnenburg, 1994). The possibilities of the few open questions that are used from time to time in survey research remain limited, however. Although much depends on the specific way the question is

asked, most open questions only ask for some enumeration of important issues or aspects of attitude objects and do not provide opportunities for argumentation or storytelling.

Ethnographic interviews

A more detailed view on the presentation of attitudes and the constitution of meaning can be found in interviews[16]. In *ethnographic interviews* as presented by Spradley (1979) the position of the interrogated individuals is radically different from that of the interviewees in the survey. Instead of respondents, Spradley (1979) uses the term 'informants' in accordance with the anthropological tradition. In contrast to survey research, the subject that is talked about, and the way in which it is talked about are negotiated between interviewer and informant in ethnographic interviews. Instead of the one-sided questioning and answering game of surveys (whether with open or closed questions), ethnographic interviews can be arranged in such a way as to facilitate a joint construction of meaning by both the researcher and the informant. Hence, the informant can speak of his own personal situation with its troubles and amazements and amusements. The specific way in which questions are posed can result in the presentation of attitudes according to the modality addressed (reflection, narration, or argumentation).

Indeed, interview studies have shown the different phenomenologically derived, but culturally constituted ways of making sense of attitude objects[17]. Illustrative of the possibility of a constitution of meaning that is not reflected upon, it has been found that interview talk does indeed have a conversational structure (Paget, 1983) and that it can have a narrative structure (e.g. Mishler, 1986; Vosmeer, 1992) or an argumentative structure (e.g. Potter and Wetherell, 1988).

However, although one may attempt to come as close as possible to the practical world of everyday life and not to bracket or disrupt it, it should be emphasized that it is not the practical logic which guides the appreciation of personal experiences at the moment itself. Instead, the interview talk is informed by the practical sense of telling a researcher about one's own life. In fact, the talk in ethnographic interviews is a result of a joint construction of meaning, in which things may be said that are otherwise not spoken of, or that were never before spoken of as clearly by the informant. It is obviously a restriction of the ethnographic interview that it cannot shed light on the situated strategies of presenting attitudes[18].

Attitudes in everyday life

Only a study of the presentation of attitudes in everyday life can be used to assess the more practical-strategic aspects of such a presentation[19]. Such research lends itself to the study of the situational variance of the expression of attitudes that is excluded from surveys and interviews. In the situated talk of everyday life the performative function and the social consequences of presenting attitudes in a specific form can be understood as well as the implicit censoring and euphemizing of attitudes that takes place in connection with the social position of the speaker and with the relations of dominance between the actors. As explained in the previous sections, it is important to realize that the presentation of

attitudes is inspired by practical sense, and is never only the result of rational calculation, nor of the implementation of rules.

Conclusion

Although some possibilities to study the differential constitution of the meaning of attitude objects and the practical-strategical aspects of the presentation of attitudes in talk were discussed in this section, it was not intended to give a full account of the different methods, as was done for the opinion survey in this study. Only empirical studies can give a decisive answer as to whether the suggestions given in this section are valid.

8.4 Towards a new methodology of attitude research

Until now, a number of different theoretical perspectives have been discussed, as well as a number of methods that can be used to assess attitudes. In this last section, we will attempt to formulate a more comprehensive perspective on attitudes and on attitude research, first with regard to the different theoretical perspectives, then with regard to the relationship between theory and method.

Epistemological rupture

The development of a theoretical and methodological perspective on attitudes to be found in this book followed the maxim of Bourdieu's social epistemology that a threefold *epistemological rupture* is the essential moment in developing theories in the social sciences (Bourdieu, Chamboredon and Passeron, 1968; Bourdieu, 1992). First, there is a rupture with everyday common sense; second, with scientific common sense; and third, with the inherent position of the scientist as a distant observer. The goal of this triple rupture is to prevent the social scientist from unwittingly projecting his own categories of thought on the object he studies. It enables us to develop a more comprehensive view on our object of study. Without this epistemological rupture, implicit accounts of the social world are taken for granted, and scientists will contribute to the reproduction of these implicit accounts and the related power relations.

In the case of attitude theory as it was discussed in this book, the break with common sense implies a break with the taken-for-granted belief in opinion surveys[20]. As was found in Chapter 4, the dominant paradigm of survey research mirrors the political ideology of democracy, attributing the right and the capacity to express attitudes to everyone and attributing the same political impact to all answers. The social history of the survey was briefly sketched to show that the type of survey that has become taken for granted nowadays, with its very peculiar form of interrogation, is in fact the outcome of a historical social process. This break with everyday common sense is all the more necessary with regard to the interpretation of survey response because the survey is legitimized by 'scientific' principles (see Chapter 1). However, since there is no scientific basis for the

postulates that everyone has opinions on survey questions and that all answers refer to central opinions, this legitimization of surveys as a scientific practice is unwarranted[21].

However, to arrive at a more critical scientific interpretation of survey answers a rupture with common sense is not sufficient. As Bourdieu (1992) asserts, it is also necessary to break with the institutionalized scientific boundaries, that prevent a more comprehensive outlook on one's research object. In the present study boundaries were crossed between disciplines (especially between psychology and sociology, but some anthropological and linguistic insights were also included), between research domains (boundaries that are especially important in the division of labour in sociology: political vs. medical sociology; political science as an independent scientific institution), and between research traditions (especially the strongly dominant cognitive psychology, with its emphasis on laboratory studies, and the dominated discursive and narrative perspectives). This is, however, not an eclecticism that acknowledges that there is some truth in every theory. Instead, it is acutely necessary to counterpose different theoretical traditions in order to demonstrate the limitations inherent in each tradition. By crossing the different institutionalized scientific boundaries, it becomes possible to break with the tacit censorship which would otherwise remain taken for granted within each discipline.[22]

The third, and most important, rupture that needs to be made is that with the theoretical perspective inherent in the position of the scientist. Since social scientists have the privilege of being able to observe social phenomena from a certain distance they are inclined to make the 'scholastic' mistake of projecting this theoretical distance on the practical logic of the behavior of the subjects they try to understand. Here, Bourdieu (1980a) counterposes the knowledge of the scientist to the 'praxeological' knowledge of their subjects[23]. The logocentrism of the opinion survey serves as a good example of how a relation of distance and reflection on everyday practice and experience is incorrectly projected on all respondents answering questions. Specifically important for (social) psychology is the critique of the reification by social psychologists of different modalities of opinion expression, the disregard for the cultural content in the cognitive perspective or for the social conditions of effective talk in discursive and narrative psychology. Cognitive psychologists even reify attitudes to the point where they become 'actors' in information processing. The theory of Bourdieu was used especially to identify the social processes and structures involved in the expression of opinions, because his theory does not fall back into a radical objectivism, but acknowledges the necessity to simultaneously investigate the mental structures in connection with the social structures in which they developed and function. Nevertheless, psychologists have developed methods of assessing these mental structures in greater detail than Bourdieu himself did.[24]

In the course of this epistemological process, which started from the widely accepted definition of an attitude as an evaluation of an object, it was shown that there is much more to an attitude than an evaluation: its cognitive centrality and the consequential structural embeddedness, as well as the differential ways in which meaning is constituted in situated talk and the consequential social valuation. These perspectives on attitudes were always related to the social and cultural processes and structures in which attitudes function.[25]

The methodological construction of research objects

In accordance with the dominant positivist scientific theory, opinion surveys are seen predominantly as a neutral technique to assess attitudes. In this study it was found, however, that the opinion survey is built on implicit assumptions which were found to be untenable. Hence, it must be concluded that this method can never be neutral: it reflects the scientist's theoretical perspective on attitudes. Likewise, the other methods discussed in this chapter also reflect a specific theoretical perspective on attitudes. Before even thinking of the verification of hypotheses, the most important scientific act is, therefore, the construction of the object (see also Bourdieu, 1992).

Thus, opinion surveys in which attitudes are methodologically constructed as evaluations of preconstituted objects, pose questions to respondents that enable them only to express these evaluations (agree or disagree). Only since cognitive psychologists identified structural characteristics of attitudes defined as cognitive representations in long-term memory, did it become possible to construct indicators of the cognitive centrality of attitudes and to broaden the scope to the crucial question that should be answered in survey research: do respondents have attitudes about the questions asked them? Only since Bourdieu pointed to the social significance of having and expressing attitudes did it become possible to assess the social distribution of the logos. Likewise, if researchers study the constitution of meaning of attitude objects from the perspective that attitudes are interactively accomplished presentations in talk, then they will select open questions, or ethnographic interviews as their research methods, and if they are interested in the strategic implications of situational variance in the expression of attitudes they will study different situations in everyday life. Hence, methods always bear the mark of the researcher's perspective on attitudes, a mark that often remains hidden and taken for granted.

The observation that methods are not neutral does not imply any relativism, however: a scientific culture does not make anything right or wrong. Relativism can only be avoided and a weighted evaluation of different methods of assessing attitudes can only be found, however, if the assumption that methods are neutral is done away with. This requires a new perspective on methodology, one which does not reduce methodology to the status of a subdiscipline of the social sciences preoccupied with methodological techniques that are empty of theoretical considerations. As theory and method are one, the separation between them in the dominant positivist tradition needs to be replaced by a substantive methodology that comprises at the same time an attempt to formulate a more comprehensive perspective on the research object in the sense explained above and an application of this perspective on the way data are produced. Instead of taking for granted that the data are given facts, it is necessary to account for the way data are constructed or produced by a researcher. In the case of questionnaires or interviews, this should also include an account of the way respondents or informants produce their answers on the questions asked. Otherwise stated, if people are asked about their attitudes, the answers they give should not be taken as given facts without taking into consideration the process of giving answers, from the more comprehensive perspective on attitudes developed here.

Only under these conditions will it become possible to arrive at a grounded evaluation of different methods. If a more comprehensive perspective on attitudes is developed first, then it becomes possible to identify the assumptions and reductionisms implicit in each method that is discussed. And only after these postulates have been made explicit in this way can they be subjected to empirical verification, as was shown in this study in the case of opinion surveys. In the present study, it was found that it is possible to assess the implicit postulates of the opinion survey and to account for the limitations inherent in opinion surveys. Of course, this does not mean that opinion surveys are worthless. There can be many practical considerations why it is necessary to conduct them. However, if one wants to understand more about attitudes the opinion survey can never be more than a part of a broader research program that also comprises other methods, such as open questions, ethnographic interviews or presentations in everyday life. Although some considerations for the study of the presentation of attitudes in situated talk were given, these can only be brought to maturity by a full-scale study which would also reflect on the assumptions inherent in these other methods.

APPENDIX 1
INSTRUCTION TASKS

metric task

In the first exercise, the metric task, respondents are asked to give numbers to lines of different lengths and to draw lines to different numbers. Here, the procedure to give numbers to lines is presented (*number estimation task*). The procedure used to give lines to numbers is identical: only 'number' has to be substituted for 'line' and 'line' for 'number' (the *line drawing task*). The order of the number estimation task and the line production task is random.

On the first page, all lines are presented. The first line is 20 mm. long, the others are 2, 5, 15, 40, 100, and 200 mm. When numbers are presented, the first number is 40, the other 4, 10, 30, 40, 80, 180, and 400. The following instructions are read to the respondents:

> "On the screen you see some lines of different length. Some lines are longer than the first one, others are shorter. We will call the first line the reference line. You are asked to compare the other lines with the reference line. You will do that by giving numbers to the lines. I will explain to you how you do this."

The second page shows the reference line of 20 mm. A number has been given to it: 40. People are then instructed as follows:

> "The number 40 represents the length of the reference line. All the lines from the first page will be presented to you one by one. You will be asked to give them a number. The number represents the length of the line, as compared with the reference line. If the line presented is longer than the reference line, the number will be higher than 40. For example, if the line is twice as long, you will give a number twice as high: 80. If the line is 5 times as long, you will give 200, since 200 is a number 5 times higher. But, if the line is shorter than the reference line, you will give a number that is lower than 40. For example, if the line is 4 times as short, you will give 10, since 10 is one fourth of 40. Or if the line is 20 times as short, you will give a number 20 times as small, which is 2."

Respondents are presented the lines in a random order, one at a time and asked:

> "please write down the number that represents the length of the line".

Thus, respondents are asked to give ratio scores.

sound task

After the metric task, another exercise is presented: the *sound task*. This task was chosen because in pilot study 1 respondents used school marks for their judgments of evaluative words and in pilot study 2 some respondents were reluctant to judge occupations, saying that all jobs are equal. For this reason, the sound task was considered a more appropriate instruction task. The sound task proved to function adequately as an instruction task in pilot study 2 and was therefore used in the final study. Because some descriptions of sounds

proved to be somewhat vague in pilot study 2, they were changed for the final study. (see appendix 4).

As in the metric task, respondents are asked to estimate numbers and draw lines, but this time they were to match them to descriptions of sounds: the *sound task*. The descriptions were: 'a crowded pub' as reference; whispering, a local bank office, a middle class car on the highway, a heavy truck driving past, a tumultuous stadium, and a jet plane flying low.

The respondents were first shown all descriptions of the sounds to be judged. The following instruction was read in the number estimation task. In the line drawing task 'lines' should be substituted for 'numbers' and 'numbers' for 'lines'. Again, the order of number estimation and line drawing was random.

> "We've now practised lines and numbers. But you can give numbers and lines to other things as well. Here are some descriptions of sounds. You are to give numbers to indicate how loud the sounds are. You compare the sounds with 'a crowded pub'. First, you give a number to 'a crowded pub'. In the other task, I determined the number. This time, you do it yourself every time. It may be the same number each time, but also a different one. Then you answer whether the next sound is louder or less loud than that of 'a crowded pub'. Here, things are a bit different than before. You *always* give a higher number than the number for 'a crowded pub'. Thus, if the sound is 3 times as loud, you give a number 3 times as high. If a sound is 25 times as loud, you give a number 25 times as high. But, if a sound is less loud, you also give a higher number than the one you gave for 'a crowded pub'. If a sound is 10 times *less* loud, you give a number 10 times higher. Or, when the sound is 5 times less loud, you give a number 5 times as high."

It may seem strange that respondents always had to give larger number or longer lines, even if the sound was less loud. In pilot studies 1 and 2, however, respondents were asked to give higher numbers if the sound was judged to be louder and lower numbers if the sound was judged to be less loud. Since some respondents used difference scores, the scores for the items that are judged less loud were more extreme than the scores for the items judged louder. In order to avoid these differences in extremity related to the positive or negative evaluation of items, respondents were always asked to give higher numbers and longer lines. Lodge (1981a) always asked his respondents to give higher scores than the reference score in the attitude task. To prepare respondents in fulfilling the attitude task in the right way, it was considered to be appropriate to make the instructions of the sound task similar to those of the attitude task.

The descriptions of the sounds are then presented in a random order. For each description, the respondent is asked:

> "Give a number that represents the loudness of the sound in 'a crowded pub'"

After giving a reference score, respondents were asked:

> "Is the sound louder or less loud than in 'a crowded pub'?"

If the sound was judged to be less loud, respondents were asked:

> "Indicate by giving a higher number how much less loud the sound is than in 'a crowded pub'"

If the sound was judged to be louder, respondents were asked:

> "Indicate by giving a higher number how much louder the sound is than in 'a crowded pub'"

APPENDIX 2
DUTCH FORMULATIONS
OF ATTITUDE ITEMS AND INSTRUCTIONS

Attitude items on the field of politics

1. Werklozen hebben het meestal aan zichzelf te danken dat ze geen werk hebben.
2. Als de gemeenten niet genoeg geld hebben om alle bijstandsuitkeringen te betalen moet de regering in Den Haag ze het geld geven dat ze nodig hebben.
3. De regering moet zaken als gezondheidszorg en huisvesting helemaal overlaten aan particuliere bedrijven en instellingen.
4. Nederland moet meer economische hulp geven aan de landen van de Derde Wereld, zelfs als die landen die hulp niet kunnen terugbetalen.
5. Het probleem van de apartheid in Zuid-Afrika moet dat land zelf maar oplossen. Nederland kan zich daar beter niet in mengen
6. De verschillen tussen de inkomens van de werkenden en niet-werkenden moeten groter worden.
7. De greep van de overheid op banken en multi-nationals moet veel groter worden.

Attitude items on the field of medicine

11. Er zijn mensen die, zonder dat van zichzelf te weten, de gave hebben om mensen van hun kwalen af te helpen.
12. Elke ziekte bevat een boodschap over onszelf en over hoe wij leven; je geneest alleen als iemand je helpt deze boodschap te begrijpen.
13. Alleen door een degelijke medische studie aan de universiteit kun je leren mensen beter te maken
14. Bij ziekte en gezondheid gaat het altijd om dingen waar de erkende wetenschap nooit achter zal komen.
15. Alternatieve geneeswijzen zijn alleen dan aan te wanneer de gewone medische wetenschap niets kan uitrichten.
16. Geneeswijzen mogen alleen toegepast worden als ze op een wetenschappelijke manier getest zijn.
17. Ziekte en kwalen kunnen samenhangen met onopgeloste problemen uit vorige levens.

Magnitude scaling instructions

For each task the instructions are first presented for line drawing, then for number estimation. Since the order of these modalities was random, some respondents were given the number estimation task first. In that case the words lines and numbers have to be changed. The instructions are read to the respondents. Every block corresponds to a new screen on the computer. Each item was presented separately on a new screen in a random order. The items presented below only serve as an example.

Metric task

Op het scherm ziet u een aantal getallen staan van verschillende grootte. Sommige getallen zijn groter dan het eerste getal, andere kleiner. Het eerste getal (40) noemen we het vergelijkingsgetal. U moet straks de getallen vergelijken met dit vergelijkingsgetal. U doet dat door de getallen weer te geven met lijnen. Ik zal u dadelijk uitleggen hoe dat moet. Als u op de brede balk onderaan drukt komt de volgende bladzijde.

De lijn op het scherm geeft de grootte van het vergelijkingsgetal 40 weer. Dadelijk komen achter elkaar weer de getallen die u zojuist zag. Onder elk getal moet u een lijn trekken. De lijn geeft weer hoe groot het getal is, vergeleken met het vergelijkingsgetal (40). Hoe groter het getal is, hoe langer de lijn, vergeleken met de lijn die bij 40 hoort. Als het getal bijvoorbeeld 80 is dan trekt u een lijn die 2 keer zo lang is. Bij een getal dat 5 keer zo groot is (200 dus) trekt u een lijn die 5 keer zo lang is. Maar als een getal kleiner is dan 40, dan trekt u een lijn die korter is dan de lijn bij 40. Bijvoorbeeld: is het getal 10, dan trekt u een lijn die 4 keer zo klein is, want 10 is een vierde van 40. Is het getal 20 keer zo klein, 2 dus, dan trekt u een lijn die 20 keer zo klein is. Kijk nog eenmaal goed naar de lijn die bij 40 hoort. Als u op de balk drukt krijgt u het eerste getal te zien.

Trek een lijn welke het getal hieronder weergeeft

Nu gaan we andersom werken. Op het scherm staan een aantal lijnen van verschillende lengte. De eerste lijn is weer de vergelijkingslijn. U moet dadelijk de lengte van de lijnen weergeven met getallen. Hoe korter de lijn is, hoe kleiner het getal. Hoe langer de lijn is hoe groter het getal. Druk weer op de balk.

De lijn op het scherm wordt weergegeven door het getal 40. U moet zo onder elke lijn een getal zetten, dat de lengte van de lijn weergeeft, vergeleken met de lijn op het scherm. Als de lijn bijvoorbeeld 2 keer zo lang is, dan geeft u een getal dat 2 keer zo groot is, dus 2 keer 40 is 80. Maar als de lijn 5 keer zo kort is, geeft u een getal dat een vijfde is van 40, dus 8. Dus: zoveel keer langer de lijn, zoveel keer groter het getal. Zoveel keer korter de lijn, zoveel keer kleiner het getal. Kijk nog eenmaal goed naar de lijn. Daarbij hoort dus het getal 40

Schrijf hieronder het getal dat de lengte van deze lijn weergeeft

Sound task

We hebben nu geoefend met getallen en lijnen. Maar je kunt ook getallen en lijnen geven aan allerlei andere dingen. Op het scherm staan nu een aantal geluiden. U moet nu lijnen gebruiken om aan te geven hoe sterk deze geluiden zijn. U vergelijkt steeds met een druk cafe. Eerst trekt u een lijn bij een druk cafe. Net hadden we al een lijn getrokken. Nu doet U dat iedere keer zelf. Het mag steeds dezelfde lijn zijn, maar ook steeds een andere. Dan geeft u aan of het geluid harder is dan in een druk cafe of dat het minder hard is. Vanaf hier gaat het iets anders dan zoëven. U trekt nu iedere keer een langere lijn dan de lijn bij een druk cafe. Als een geluid bijvoorbeeld 3 keer zo hard is, dan trekt u een lijn die 3 keer zo lang is. Als een geluid 25 keer zo hard is, trekt u een lijn die 25 keer zo lang is. Maar ook als het geluid minder hard is trekt u een lijn die langer is dan de lijn bij een druk cafe. Als een geluid bijvoorbeeld 10 keer *minder* hard is, trekt u toch een 10 keer zo *lange* lijn. Of als het geluid 5 keer minder hard is, trekt u een 5 keer zo lange lijn.

1. Trek een lijn die de sterkte van het geluid in 'een druk cafe' weergeeft.
2. Is het geluid Harder of Minder hard dan in 'een druk cafe'? Druk op H of M
3a. [indien harder:] Geef nu met een langere lijn aan hoeveel harder het geluid is dan in 'een druk cafe'
3b. [indien minder hard:] Geef nu met een langere lijn aan hoeveel minder hard het geluid is dan in 'een druk cafe'

Wat we nu gedaan hebben met lijnen, gaan we nu met getallen doen. U geeft eerst weer een getal aan een druk cafe. Dat mag weer iedere keer hetzelfde zijn, maar het kan ook iedere keer anders zijn. Dan geeft u weer aan of het geluid harder of minder hard is. Als het geluid harder is, dan geeft u met een groter getal aan hoeveel keer harder het geluid is. Maar ook als het geluid minder hard is, geeft u met een groter getal aan hoeveel minder hard het is.

1. Zet een getal dat de sterkte van het geluid in 'een druk cafe' weergeeft
2. Is het geluid Harder of Minder hard dan in 'een druk cafe'? Druk op H of M
3a. [indien harder:] Geef nu met een groter getal aan hoeveel harder het geluid is dan in 'een druk cafe'
3b. [indien minder hard:] Geef nu met een groter getal aan hoeveel minder hard het geluid is dan in 'een druk cafe'

Attitude task

U bent nu klaar met het oefenen. Zo meteen krijgt u beweringen over de politiek en over ziekte en gezondheid te zien. Het zijn allerlei beweringen door elkaar. U krijgt er steeds een te zien. Niet iedereen heeft over alle uitspraken evenveel nagedacht. Het kan dus best dat u over een uitspraak geen mening heeft. Is dat zo, dan kunt u dat steeds aangeven. U krijgt dan de volgende vraag voorgelegd. Heeft u wel een mening over de uitspraak, dan wordt u gevraagd die te geven. Dat doet u weer door er getallen en lijnen aan geven, net zoals bij de geluiden. We vergelijken nu niet met een druk cafe maar met een mening 'er tussen in'. Dat betekent: "Ik ben het met deze bewering niet eens maar ook niet oneens." U trekt eerst een lijn bij 'er tussen in'. Dat is de vergelijkingslijn. Daarna geeft u uw *eigen* mening. U geeft eerst aan of u het met de uitspraak eens of oneens bent. Dan geeft u weer met een langere lijn aan, hoe sterk uw eigen mening is. Zoveel keer sterker uw mening, zoveel keer langer de lijn. Of u het nu met de bewering eens of oneens bent, de lijn die aangeeft hoe sterk uw mening is, is steeds langer dan de vergelijkingslijn.

1. Trek nu een lijn die de mening 'er tussen in' weergeeft
2. Bent u het met deze uitspraak Eens, Oneens of heeft u er Niet genoeg over nagedacht?
Druk op E of O of N
3a. [indien geen mening: volgende item wordt gepresenteerd]
3b. [indien eens:] Geef nu met een langere lijn aan hoe sterk u het met de uitspraak eens bent
3c. [indien oneens:] Geef nu met een langere lijn aan hoe sterk u het met de uitspraak oneens bent

Nu krijgt u dezelfde uitspraken nog een keer te zien. Nu moet u getallen geven in plaats van lijnen. U geeft eerst weer een getal bij 'er tussen in'. Dan geeft u weer aan of u het met de uitspraak eens of oneens bent, of dat u er niet genoeg over heeft nagedacht. Daarna geeft u met een groter getal aan hoe sterk u het met de uitspraak eens of oneens bent. Zoveel keer sterker uw mening, zoveel keer groter het getal.

1. Zet nu een getal dat de mening 'er tussen in' weergeeft
2. Bent u het met deze uitspraak Eens, Oneens of heeft u er Niet genoeg over nagedacht? Druk op E of O of N
3a. [indien geen mening: volgende item wordt gepresenteerd]
3b. [indien eens:] Geef nu met een groter getal aan hoe sterk u het met de uitspraak eens bent
3c. [indien oneens:] Geef nu met een groter getal aan hoe sterk u het met de uitspraak oneens bent

APPENDIX 3
THE QUESTIONNAIRE

Part 1: To be filled out by the interviewer

You have just used the computer to answer some questions on Dutch policies and on health and illness. Now, I would first like to talk with you some more about Dutch politics.

1. You have given your opinions on various statements about such issues as employment, South-Africa, Social Security, the Third World. In general, are they issues that you are interested in?	1. yes 2. somewhat 3. no
2. Are you ever in the company of people who talk about these kinds of issues? Do you usually take part in the conversation, do you listen with interest, or are you not interested?	1. never occurs 2. I usually participate 3. I listen with interest 4. I'm not interested
3. When there is an article in the newspaper about these kinds of issues do you read it?	1. yes 2. sometimes 3. no
4. And when there is something about them on television, for instance in current affairs programmes such as "Achter het Nieuws", "Tros Aktua", "Brandpunt", do you watch it?	1. yes 2. sometimes 3. no
5. Did you vote in the last parliamentary elections?	1. yes 2. no
6. Please give as many names of political parties in parliament (Lower House) as you know	*parties in parliament:* *CDA, PvdA, VVD, D'66, GL, SGP, GPV, RPF, CD* [1]
7. Do you have a marked preference for any particular political party?	1. yes, which one? ..... 2. no
8. Are you a member of a political party?	1. yes, which one? ..... are you an active member? ..... 2. no (*go to question 9*)
9. Are you a member of a trade union?	1. yes, which one? ..... are you an active member? ..... 2. no (*go to question 10*)
10. Have you participated in actions or meetings which were organized by residents' associations, political parties or trade unions?	1. yes, regularly?..... what kind of actions?..... 2. no (*go to question 11*)

(*present questionnaire I; items 11 to 20*)
On this paper you will find some statements in which something is being said about the way the Netherlands should be governed. Each statement represents the views of a particular political party. Every party has its own thoughts about the best way to govern the Netherlands. I would like you to indicate which statement is likely to be made by which party. We have chosen some statements of the three major political parties. These are VVD, PvdA, and CDA. Some statements are more likely to be made by a politician of the VVD. Other statements are more likely to be made by a politician of the PvdA. Finally, a politician of the CDA will more likely make still other statements. Can you indicate for each of the following statements by which party you think it is made? You can do this by drawing a circle around the correct answer.

Now, I will read to you some names of politicians. Please tell me whether you know this person. If you know the politician, do you also know to which party he or she belongs? Do you also know his or her function?

			party	function
21. Robin Linschoten	1. yes	2. no	*VVD*	*Member of Parliament*
22. Hans van den Broek	1. yes	2. no	*CDA*	*Minister of Foreign Affairs*
23. Marianne Sint	1. yes	2. no	*PvdA*	*Party chairperson*
24. Ria Beckers	1. yes	2. no	*GL*	*Member of Parliament*
25. Thijs Wöltgens	1. yes	2. no	*PvdA*	*Member of Parliament*

We have talked at length about Dutch politics. I would now like to talk with you about health and illness. On the computer you have judged some statements about health and illness, like on medical science, alternative medicine, reincarnation, studying at the university, and the best way to heal patients.

26. Are these issues you are interested in?
1. yes
2. somewhat
3. no

27. Are you ever in the company of people who talk about these kinds of issues? Do you usually take part in the conversation, do you listen with interest, or are you not interested?
1. never occurs
2. I usually participate
3. I listen with interest
4. I'm not interested

28. Do you sometimes read about these issues? You may think not only of detailed books, but also of leaflets of pharmacists or chemists, for example.
1. yes
2. sometimes
2. no

29. And when there is something about these issues on television, for instance in programmes such as "Vinger aan de Pols", "Rondom Tien" or "Parallax", do you watch it?
1. yes
2. sometimes
3. no

30. Are you member of an association of patients?
1. yes, which one? .....
are you an active member? .....
2. no (*go to question 9*)

31.What people think about health and illness will usually be related to their experience in this domain. If someone has experienced an illness, for example because he himself is ill or because a close relative or a good friend is ill, this will certainly affect the way he thinks about health and illness. Someone who doesn't have any experience of severe diseases will think differently from someone who has had this kind of experience. That's why I want to ask you some things about your own experience with diseases. Have you ever gone through a serious illness, complaint or accident? Can you tell me something about it, what was happening? What did you think of it?
- *who* was ill?; *what* illness?; *when* did he/she have experience with serious illness?;
- is the respondent well-informed about the *course of the illness*?
- were *doctors / medical specialists / alternative healers* involved?
- what did the respondent think of the course of the illness and its treatment?

(*present questionnaire II; items 32 to 41*)
On this sheet of paper there are again some statements. Now I would like to know which doctor or alternative healer could have made the statement. Alternative healers often have opinions on health and illness which differ from those of normal doctors. Also, the different alternative healers do not always agree among themselves. Some statements are more likely to be made by a normal doctor. Others are more likely to be made by a paranormal healer. These are healers, who are also called magnetizer, layer-on of hands, or faith healer. Still other statements will be made by acupuncturists. Please indicate on this list whether you think a statement is made by a normal doctor, a paranormal healer or an acupuncturist.

(*present questionnaire III; items 42 to 51*)
A variety of doctors work at the hospital. All these doctors have their own specialisms, each of them with their own name. There are also a variety of alternative healers with different specialisms. On the paper you'll find a list of these names of medical specialists and alternative healers. Behind each name you'll find three descriptions. Can you indicate which description is correct?

(present questionnaire IV; items 52 to 61)
Here you see a number of concepts used in health care. There are concepts used by alternative healers as well as concepts used by normal doctors. Behind each concept there are three descriptions. One of these is always the correct one. Please indicate the one you think is correct.

Finally, I would like to ask you some background information.

62. Do you have an occupation?
1. yes
2. no (*go to question 67*)

63. What is your occupation?
.....

64. Are you in government service, otherwise employed or are you self-employed?
a. in government service
b. otherwise employed
c. self-employed
d. otherwise, ...

65. For what kind of company or institute do you work?
.....

66. Are you responsible for other people in your occupation?
1. yes, How many persons? .....
2. no

67. Did you have an occupation before?
1. yes
2. no

if yes: why don't you have it any more?
questions 63 to 66 should be posed in past tense
a. enduring disability/incapacity for work
b. unemployed/looking for a job
c. retired/living on private means
d. otherwise, ...

if no: what is your situation at the moment?
a. studying
b. unemployed/looking for a job

68. What is your age?
.....years

69. What is the highest level of educational that you followed?
1. Primary school
2. VGLO/LAVO (lower secondary)
3. LBO (lower vocational), viz.....
4. MULO, ULO, MAVO (lower secondary)
5. HBS, MMS, Atheneum, Gymnasium (pre-university)
6. MBO (intermediate vocational), viz. .....
7. HBO (higher vocational), viz. .....
8. Universiteit (University), viz. .....

Part 2: Knowledge tests to be filled out by the respondent

Questionnaire I

11. The government should intervene more often to see to the recovery of the economy. 1. CDA 2. *PvdA* 3. VVD

12. The government itself lays down too many rules on business. 1. CDA 2. PvdA 3. *VVD*

13. The family is the cornerstone of society. 1. *CDA* 2. PvdA 3. VVD

14. A person who achieves more and performs better in his job should have a higher salary than others. 1. CDA 2. PvdA 3. *VVD*

15. The tax burden on private people should be alleviated a great deal. 1. CDA 2. PvdA 3. *VVD*
16. Government spending must be kept as low as possible. That is the best condition for good policy. 1. CDA 2. PvdA 3. *VVD*
17. New houses and house improvement should primarily benefit the low-income people 1. CDA 2. *PvdA* 3. VVD
18. Income differences should be reduced in order to make sure that the lowest incomes do not fall. 1. CDA 2. *PvdA* 3. VVD
19. Citizens should be better protected, for example by a strengthened police force. 1. CDA 2. PvdA 3. *VVD*
20. People should look after each other more and take more care of each other when times are hard. 1. *CDA* 2. PvdA 3. VVD

Questionnaire II

32. In healing one acts on one's intuition.
1. normal doctor
2. *paranormal healer*
3. acupuncturist

33. Feeling a person's wrist can tell you what kind of illness he or she has.
1. normal doctor
2. paranormal healer
3. *acupuncturist*

34. Using a pendant can tell you what kind of illness a person has.
1. normal doctor
2. *paranormal healer*
3. acupuncturist

35. Life energy follows certain pathways in the body.
1. normal doctor
2. paranormal healer
3. *acupuncturist*

36. In the final analysis it is a matter of chance whether a person becomes ill or not.
1. *normal doctor*
2. paranormal healer
3. acupuncturist

37. It is always possible to get to know the patient's complaint, even if the patient does not tell you about it
1. normal doctor
2. *paranormal healer*
3. acupuncturist

38. Illness should be cured by remedies that counteract the illness.
1. *normal doctor*
2. paranormal healer
3. acupuncturist

39. Every organ is linked to a certain spot on the body.
1. normal doctor
2. paranormal healer
3. *acupuncturist*

40. One can only cure people in the right way if one has a thorough knowledge of all parts of the body.
1. *normal doctor*
2. paranormal healer
3. acupuncturist

41. In the final analysis one doesn't cure, one only transmits energy.
1. normal doctor
2. *paranormal healer*
3. acupuncturist

Questionnaire III

42. urologist
a. specialist for kidney diseases
b. *specialist for urinary passages and genital organs*
c. specialist for venereal diseases

43. oncologist
a. specialist for internal diseases
b. specialist for inflammations
c. *specialist for malignant tumors*

44. haptonomist
a. alternative healer, who works with cosmic powers
b. *alternative healer, who relies on touch, feelings and emotional life*
c. alternative healer, who uses certain diets

45. orthopaedist
a. *specialist of the locomotor apparatus*
b. specialist of the feet
c. dentist

46. iridologist
a. specialist of the eyes
b. specialist who uses a certain instrument to study the internal organs
c. *alternative healer, who diagnoses diseases by looking people in the eye*

47. dermatologist
a. *specialist of the skin*
b. specialist of the intestines
c. specialist of the kidneys

48. auriculotherapist
a. *alternative healer who treats patients by stimulating certain parts of the auricle*
b. ear doctor
c. alternative healer, who finds out diseases by looking at the radiation around a body

49. chiropractor
a. specialist who performs operations
b. expert of the lines of the hand
c. *bonesetter*

50. radiologist
a. alternative healer, who uses positively or negatively charged particles of air
b. *specialist, who uses radiation therapy*
c. alternative healer, who uses sound waves

51. homeopathist
a. alternative healer using only botanical medicines
b. *alternative healer, who cures similar diseases what with similar medicines*
c. alternative healer, who includes the whole person in treatment

Questionnaire IV

52. fluidum
a. medicinal liquid
b. *medicinal energy*
c. medicinal injection

53. D20
a. vitamin
b. *specification of homeopathic dilution*
c. substance used in enzymotherapy

54. auscultation
a. percussing a patient
b. internal examination
c. *listening to internal organs*

55. aura
a. omen of an illness
b. auricle
c. *radiation surrounding a body*

56. syndrome
a. *signs which are characteristic of a certain disease*
b. pain which is characteristic of a certain disease
c. diseases occurring at the same time

57. meridian
a. cross section of an organ
b. *certain path on the body that life energy runs along*
c. imaginary midpoint of the body

58. virus
a. kind of bacterium
b. kind of fungus
c. *very small pathogen*

59. anamnesis
a. *history of an illness*
b. anaesthetic
c. distorted picture of disease

60. X-ray
a. photograph made with sound waves
b. *photograph made with invisible beams*
c. photograph, on which the sick parts of the body are brighter

61. holism
a. theory on internal organs
b. *theory on illness that includes the whole person and not only the body*
c. theory on illness that includes the positions of the stars

Part 3: Observation scheme to be filled out by the interviewer

70. Sex — 1. male 2. female

71. Place of residence — 1. Nijmegen 2. elsewhere, viz...

72. Civil status — 1. married or living together 2. unmarried

77. Were other persons present during the interview? — 1. yes 2. no
If yes, who? .....
Did they listen? — 1. yes 2. no
Did they intervene? — 1. yes 2. no

78. Were there other disturbing influences? — 1. yes 2. no
If yes, which? .....

79. Did the respondent think the questionnaire was? — 1. pleasant 2. unpleasant
1. difficult 2. easy
1. interesting 2. boring

80. Was the respondent....? — 1. tense 2. relaxed
1. concerned 2. indifferent
1. concentrated. 2. not concentrated

81. Give the respondent a school mark on a scale from 1 to 10: school mark: ....
- 10 points are for the ideal respondent, i.e. a respondent who understood all questions at once, who gave complete and reliable answers etc.
- and 1 point for the worst respondent imaginable.

82. Has the respondent had any experience with computers? — 1. yes 2. no

83. Has the respondent been asked for an interview? — 1. yes, participates
2. yes, doesn't participate
3. no

APPENDIX 4
RATIO SCORES IN MAGNITUDE SCALING

As described in Chapter 5, respondents are asked to give ratio scores in magnitude scaling. However, one of the questions which has given rise to much debate about the usefulness and validity of magnitude scaling is the question of whether or not the respondents do indeed give ratio scores.

Some observations of the actual strategies used by the respondents to fill out the questionnaire can shed some light on this question. These observations relate to the strategies used in the non-metric instruction tasks in the pilot studies 1 and 2 and in the present study. The metric task uses a commonly known metric, so that it is likely that indeed ratio scores were given (Poulton, 1989). Indeed, respondents often thought of centimeters when giving numbers to lines or lines to numbers.

As can be seen in table a1, the non-metric instruction tasks differed somewhat for the different pilot studies and for the final study. In pilot study 1, a semantic task was used, in pilot study 2, a sound task as well as an occupation task were used, and in this study a sound task.

Respondents were found to use difference scores, categorical judgements of the more common Likert-type (somewhat more, somewhat less etc.), fixed maximum scores, and some common numerical distributions instead of ratio-scores. Below, these different strategies will be described. The proportion of respondents using a specific strategy will be mentioned whenever possible.

Difference scores

As has also been remarked by Rule and Curtis (1982), some respondents used difference scores. It is not possible to tell from a respondent's scores whether or not he or she used difference scores. There is one way, however, to show that difference scores were used by at least some respondents. The way in which respondents were asked to express their own judgments of the stimuli differed for the pilot studies and for the final study. In the final study respondents were asked to give longer lines and higher numbers to all items, whether these were judged louder or less loud than the reference (see appendix 1). In pilot studies 1 and 2, however, respondents were only asked to give higher numbers and longer lines than the reference if an item was judged to be more positive (for evaluative words in study 1), louder (for sounds in study 2), or more prestigious (for occupations in study 2) than the reference item. They were asked to give smaller numbers or lines when the item was less large etc. than the reference item.

Say, a respondent in one of the pilot studies gives a reference score of 10. If he gives difference scores a difference of 9 points the score given to the item will be 1 if the item is judged to be smaller than the reference item. If the item is judged to be bigger than the

Table a1 Stimuli of the instruction tasks

	name	reference	items
study 1	semantic	so-so	absolutely perfect, excellent, very good, outstanding, good, sufficient, moderate, not so good, obviously insufficient, bad, lousy, very bad, horrible
study 2	occupation	nurse	lavatory attendant (female), waitress in a cafeteria, machinist, hairdresser (female), foreman of a department (industrial), stenographer (female), primary school teacher (female), public notary, secretary of state
study 2	sound	a crowded pub	whispering, a local bank office, a middle-class car on the highway, a heavy truck, a tumultuous stadium, a jet plane
final study	sound	a crowded pub	whispering, a local bank office, a middle-class car on the highway, a heavy truck driving past, a tumultuous stadium, a jet plane flying low

Table a2 Range mean scores on instruction tasks (pilot study 1, pilot study 2, city sample of final study)

		number		line	
mean score per item	task	maximum	minimum	maximum	minimum
study 1, students*	semantic	2.5	5.0	3.7	6.7
study 1, non-students*	semantic	2.7	4.1	3.0	4.1
study 2**	occupation	2.0	3.3	1.8	2.5
	sound	3.0	9.0	2.7	5.5
final study	sound	8.2	5.5	4.1	3.7

* *note*: in study 1 28 college students and 43 persons with predominantly lower educational levels filled out the questionnaire

** *note*: only 25 respondents of study 2, who used the computer, are incorporated in the analysis; 25 respondents, who used the paper-and-pencil version are left out of account, because a computer was also used in pilot study 1 and the final study

reference score a difference of 9 results in a score of 19. The ratios to the reference score are 10 and 1.9, respectively. Thus, if a respondent gives difference scores instead of ratio scores, the scores will be more extreme for the items that are judged to be smaller than for the items that are judged to be bigger. Table a2 shows that for the non-metric instruction tasks in the pilot studies, the minimum ratio is indeed more extreme than the maximum ratio.

In the final study, however, the maximum ratio is larger than the minimum ratio, whereas the items are more or less similar to those in pilot study 2. This finding can be explained by the differences in instructions mentioned above. In the final study respondents were always asked to give higher numbers and longer lines to the items, whether these were judged to be louder or less loud than the reference item. Thus, if a reference score of 10 was given, a difference of 9 points always results in an absolute ratio score of 1.9 (minus 1.9 if the item is judged to be less loud, plus 1.9 if the item is judged to be louder than the reference item).

The maximum scores are somewhat higher than the minimum scores, although the items are more or less comparable to those of the sound task in study 2. It can be concluded that the differences in maximum and minimum scores in the pilot studies are not found because

the items judged smaller etc. were more extreme. Therefore, it is concluded that these findings are evidence of the use of difference scores. Of course, this is not to say that difference scores were not used in the final study. Because of the differences in the minimum and maximum scores observed in pilot studies 1 and 2, respondents were always asked in the final study to give a higher number or a longer line after having indicated first whether the item was more or less loud than the reference item.

Categorical judgements

While some respondents appear to give difference scores, others used categorical judgements instead of ratio judgements. This was indicated by the fact that, when asked to reason aloud, respondents used phrases like "this sound is somewhat louder" or "this word is much more positive" and consequently drew a line that was 'somewhat longer' or gave a number that was 'much larger' than the reference. This may result in scores not unlike the difference scores mentioned above, but it is difficult to tell from the distributions of the scores whether or not respondents used this strategy to obtain their responses.

Fixed maximum scores

It was observed that some respondents first thought of a maximum score they were going to give besides a fixed reference score. Only after having set this standard did they think of giving scores in between the reference and the maximum[2]. In the line drawing modality the maximum score was often referred to as 'a screen full'. Of course, the fact that the maximum length of a line actually was 'a screen full' would suggest that the task of line drawing was in fact different from the task of number estimation where no such fixed maximum existed. It is difficult to assess whether a maximum score was thought of from the beginning of a task, because respondents always gave a maximum score to the most extreme item.

Some common numerical distributions

The use of numbers as a response modality reminded some respondents of some often used numerical distributions. Two of these were actually used by some respondents: percentages and school marks.

If respondents use percentages, this is indicated by the use of a reference score between 40 and 60 and a maximum score of 100. In study 1, 4 students (14%) and 4 non-students (10%) gave percentage scores; in study 2, 2 respondents (8%) gave percentages to the sound task and 3 (12%) to the occupation task; in the present study, 5 respondents (5%) used percentages in the sound task. In sum, about 8% of all respondents used percentages in the instruction tasks.

The use of school marks (also a form of category scaling) is connected with the Dutch system, in which marks between 0 and 10 are given. Traditionally, these marks are

associated to explanatory evaluative words, which can always be found on the reports, ranging from very poor (for 0) through sufficient (for 6) to excellent (for 10). If respondents use these kinds of numbers, this is indicated by a reference score of 4, 5 or 6 and a maximum score of 10. In study 1, 7 students (25%) and 9 non-students (22%) used school marks in the semantic task. In study 2, these kinds of numbers were neither used in the sound task nor in the occupation task. In the present study, only 2 respondents (2%) used school marks in the sound task. Thus, the use of school marks is limited to the semantic task where a match between numbers and evaluative words existed already in the form of school mark descriptions. As in the U.S. the use of school marks is different (running from D to A, instead of from 1 to 10) American researchers were not likely to find this kind of number estimation.

While Poulton only described how the scores in response modalities with well-known numerical distributions can be ratio scores, it is observed here, that some well-known numerical distributions can also prevent respondents from giving ratio scores.

Conclusion

In sum, all four strategies described (difference scores, categorical scores of a Likert type, setting maximum scores or using one of the common numerical standards) result in either difference or categorical scores but not in the ratio scores that the respondents are asked to give. These differences in strategies may explain a large part of the individual differences in regression coefficients (see Saris, 1988). To check whether the individual differences in the use of the instrument are related to social characteristics of the respondents an analysis of variance was carried out. No significant differences according to the social position and sex of respondents were found in their scores on the metric and the sound task in the final study[3].

In view of these findings one might question whether scores should be calculated as the ratio between the item score and the reference score. It may be better, at least for some respondents, to calculate scores as the difference between the item score and the reference score. However, it was found, in both pilot studies as well as in the final study, that the results based on scores calculated as ratio scores fulfilled the magnitude scaling requirements rather well (Westerhof, 1989a, 1989b; Chapter 6). Although the use of school marks was found to result in a smaller regression coefficient on the power law, it is concluded that scores can be effectively calculated as ratio scores.

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NOTES

Introduction

1 The abbreviation stands for "POlitieke VOorkeur", i.e. "political preferences".
2 The 'higher' educational institutes were VWO (pre-university level), and HAVO (higher secondary level); the 'lower' institutes were LBO (lower vocational level), and MAVO (lower secondary level).

Chapter 1 Survey questionnaires

1 J. Converse (1987); the issue celebrating the 50th anniversary of the journal Public Opinion Quarterly (edited by Singer, 1987); Turner and Martin (1984); Van Ginneken (1986, 1990); Champagne (1990); Blondiaux (1991).
2 These ideological legitimizations in terms of democratic and scientific principles will be critically examined in chapters 3 and 4.
3 See Sudman and Bradburn (1987) on private, government, and university institutes; Gollin (1987) on the media; and Presser (1984) on universities.
4 See Presser (1984) for some of the differences in the use of the survey across disciplines.
5 See Alwin and Campbell (1987) for a short history of survey data analysis.
6 See Thomas and Znaniecki (1920/1974); Allport (1935); Fleming (1967).
7 In the United States the first census was held in 1790, in England in 1801 (J. Converse, 1987, p.12).
8 See Frankel and Frankel (1987) on the development of sampling techniques.
9 See Lazarsfeld (1944) for a contribution to the discussion about open and closed questions at that time. See J. Converse (1984) for a historical account, and Van Holsteyn (1993) on the disappearance of open questions in the Netherlands. See also section 8.3 on open questions.
10 For example: the American Association for Public Opinion Research adopted a code in 1968, the Council of American Survey Research Organizations and the National Council on Public Poll both did so in 1979 (Turner and Martin, 1984).
11 The following studies were used: Sudman and Bradburn (1974); Schuman and Presser (1981); Dijkstra and Van der Zouwen (1982); Turner and Martin (1984); J. Converse and Schuman (1987); Groves (1987); Van der Zouwen and Dijkstra (1989); Singer and Presser (1989); Aborn (1991); Alwin (1989, 1991); Schwarz and Sudman (1992); 't Hart and Kox (1992).
12 In chapter 2, we will meet some problems relating to this analogy between psychological tests and opinion surveys.
13 Another measurement model, developed by Rasch (1960), does not postulate a one-to-one relationship between a 'true score' and a measurement value. It postulates that the measurement value is obtained from the 'true score' with a certain probability. This model is seldom used in survey measurement, however.
14 The term '*response effect*' is not appropriate: while it suggest an effect of the response it is in fact the effect of some independent variable upon the response. Common usage will, however, be followed.
15 Psychometrists have studied similar phenomena in psychological testing, known as *response sets*. Strangely enough, there are virtually no references to the study of response sets in the literature on response effects.
16 In these examinations, different methods have been used.
- First, the answers can sometimes be checked against existing information obtained from other sources to see whether or not any distortions occurred. Of course, the information from external sources should also be reliable, which is not always the case (Miller and Groves, 1985).
- A second method of dealing with the quality of answers is a 'construct' validity approach. Andrews (1984) used a multitrait-multimethod design to assess the relative contributions to answers of specific response scales and concepts of interest.
- Third, the magnitude of the effects has been assessed in so-called *split ballot* experiments. In these experiments, respondents are randomly assigned to one of two experimental conditions and presented with

slightly different versions of a questionnaire. This method is used, for example, by Schuman and Presser (1981), and Bishop and colleagues (1979, 1980, 1982, 1983, 1986, 1990). The approach is relatively limited in scope: whenever an effect occurs for one question, it does not necessarily occur for another question that is different in content.

- Finally, three different approaches have been used to generalize the findings of the rather ad hoc experiments mentioned above: non-experimental examination of response effects at a more general level than at that of specific questions of different form and content (Molenaar, 1989), 'meta-analyses' on the split ballot experiments (e.g. De Leeuw, 1989; see also Van der Zouwen, 1989), and the construction of models that can be used to explain response effects (Dijkstra and Van der Zouwen, 1982; Van der Zouwen, 1989). Recently, psychologists have tried to account for the occurrence of response effects from a cognitive psychological point of view (Tourangeau and Rasinski, 1988; Schwarz and Sudman, 1992).

Chapter 2 The Converse debate

1 In the early sixties, Converse developed his arguments on three different occasions: together with Campbell, Miller and Stokes in "The American Voter" (1960), an attitudinal and field theoretical study of voting in presidential elections in the US; in a paper presented at the Seventeenth International Congress of Psychology (1963; published in 1970), which is the continuation of a dialogue started by Hovland (1959), comparing the results of the psychological experiment and the sample survey with regard to attitude change; and finally, and most forcefully, in his article "The Nature of Belief Systems in Mass Publics" (1964a), which is mainly about differences in political attitudes between the political elite and the mass public. In 1964 he also published an article in French, relating to elite-mass differences (1964b). Later on, he participated actively in the debate that resulted from his arguments (1974, 1975, 1979a, 1979b, 1980; see also Converse and Markus, 1979). In 1985, with Roy Pierce, he published an analysis of French politics which closely follows the lines set out in his earlier statements.

2 Converse uses the concepts of 'belief' and 'attitude' more or less interchangeably.

3 The need for an interdisciplinary approach is explicitly underlined in "The American Voter" (1960) and in the preface by Eulau (1964) to the collection of essays in which Converse's 1964 article was included.

4 Converse thus uses the notion of ideology in a neutral sense, implying only a system of beliefs. Ideology has neither a positive meaning, being a system of ideas that serves as a guideline how to arrange society, nor a negative meaning, being the distorted view of reality that the concept has had ever since Marx. Converse himself is aware of the various connotations of the concept of 'ideology' in the social sciences (see 1964a, p.207). See Minar (1961) for an overview of the various meanings of the concept and Larrain (1979) for its history.

5 See Heider (1946, 1958) on balance, Osgood, Suci and Tannenbaum (1957) on congruence, M.Rosenberg (1956, 1960a, M. Rosenberg and Abelson, 1960) on affective-cognitive consistency, and Festinger (1957) on cognitive dissonance. See Boosch (1986) for an analysis of the relation of Converse's theory with various psychological consistency theories.

6 He also mentions how co-occurring beliefs are related to configurations of interests and information that characterize particular niches in societies. Having thus become related to interests, this conception of belief systems comes closer to the Marxist meaning of the term ideology.

7 In the context of the differences in "what the parties stand for", respondents were asked: "Would you say that [either] one of the parties is more conservative or more liberal than the other?" and "What do you have in mind when you say that the Republicans (Democrats) are more conservative than the Democrats (Republicans)?". Respondents who said they saw no differences between the parties were also asked: "Do you think that people generally consider the Democrats or the Republicans more conservative, or wouldn't you want to guess about it?" and "What do people have in mind when they say that the Republicans (Democrats) are more conservative than the Democrats (Republicans)?"

8 Average tau-gamma's are (table reproduced from Converse, 1964a, p. 229):

	within domestic issues	*between domestic and foreign*	*within foreign issues*	*between issues and party*
elite	.53	.25	.37	.39
mass	.23	.11	.23	.11

9 The fact that the 'power and housing' item fits best into the model is explained by certain characteristics of that item. The 'power and housing' item corresponds to a very basic political controversy, and it is rather abstract and remote from everyday experience. Furthermore, "while events like the crisis at Little Rock and exposés of waste in foreign aid were occurring in this period to touch off meaningful evolutions of opinion, little was occurring that might intuitively be expected to shake true beliefs on one side or the other" (Converse, 1964a, p.243).

10 See also other reviews of this debate: Converse (1975); T. Smith (1984); Kinder and Sears (1985); McGuire (1985); Monroe (1981); Sniderman and Tetlock (1986); Milburn (1991).

11 Whether there is a relationship between this recent interest and the publication of the new Handbook of Social Psychology in 1985, in which the debate was discussed in both the chapter on "Public Opinion and Political Action" by Kinder and Sears and the chapter on "Attitudes" by McGuire, is an interesting question that cannot be solved here, however.

12 E. g. Feldman (1983, 1988); Chong, McClosky and Zaller (1983).

13 The relations between higher-order beliefs and specific attitudes are also studied in expectancy-value theories of attitudes (e.g. Rotter, 1954).

14 E. g. Levitin and Miller (1979); Conover and Feldman (1981); Brady and Sniderman (1986, cited in Sniderman and Tetlock, 1986); Chubb, Hagen and Sniderman (1984, cited in Sniderman and Tetlock, 1986) on *political parties*.
E. g. Carmines and Stimson (1982); Sniderman, Brody and Kuklinski (1984) on *race*.
E. g. Knoke (1979) on *social class*.

15 In 1964, he mentioned the importance of *values*: "Often such constraint (that is not in line with a conservative/liberal yardstick) is quasi-logically argued on the basis of an appeal to some superordinate value or posture toward man and society, involving premises about the nature of social justice, social change, 'natural law', and the like. Thus a few crowning postures - like premises about the survival of the fittest in the spirit of Social Darwinism - serve as a sort of glue to bind together many more specific attitudes and beliefs, and these postures are of prime centrality in the belief system as a whole." (p.211).
In the study on the American voter and in his article of 1964 he also mentioned the importance of *social groups*. Campbell et al. used the term 'ideology by proxy' in their coding of the levels of sophistication: "There is little comprehension of 'long-range plans for social betterment', or of basic philosophies rooted in postures toward change or abstract conceptions of social and economic structure of causation. The party or candidate is simply endorsed as being 'for' a group with which the subject is identified or as being above the selfish demands of groups within the population. Exactly *how* the candidate or party might see to fit to implement or void group interests is a moot point, left unrelated to broader ideological concerns." (1960, p.234).

16 Studies on cognitive complexity have been carried out by Scott (1962, 1969); Linville (1982); Judd and Lusk (1984); Lusk and Judd (1988). Tetlock's studies (1983, 1984, 1986, 1989), based on the integrative complexity coding scheme of Schroder, Driver and Streufert (1967), have recently gained much attention in social psychology. Although somewhat different in theory and methodology, the studies of S.Rosenberg (1987, 1988) on political reasoning in the Piagetian tradition can also be seen as studies on cognitive complexity. See Milburn (1991), and Eagly and Chaiken (1993) for reviews of cognitive complexity.

17 See the reviews on attitude research by McGuire (1986); Tesser and Shaffer (1990); Olson and Zanna (1993).

18 Besides the structure between different attitudes (also called inter-attitudinal structure), research is also carried out on the different components of an attitude (also called intra-attitudinal structure). A well-known example of the last is the trichotomy of cognitive, affective, and behavioral components of an attitude (McGuire, 1985; Eagly and Chaiken, 1993).

19 See Pratkanis, Breckler and Greenwald (1989), Olson and Zanna (1993).

20 Attitudes are then defined as mental representations of (social) objects. A criticism, which focuses more on the presentation of attitudes in everyday talk, will be presented in the 'epilogue'.

21 This theory strongly resembles the theories of cognitive schemata, which dominated much of social psychology in the eighties (Fiske and Taylor, 1991). These studies also refer explicitly to the 'Converse debate', for example in the case of Conover and Feldman (1984) and Milburn (1991) and in different articles in the volume on political cognition edited by Lau and Sears (1986). Differences in cognitive

schemata are specifically conceptualized as expert-novice differences. They closely resemble the differences in associative networks described by Judd and Krosnick (1989).

22 As McGuire (1985, p.239) notes: "In most empirical studies specific attitudes are defined at least implicitly as responses that locate 'objects of thought' on 'dimensions of judgment'".

23 See Fazio (1990b) and chapter 5 for details on the measurement of response latencies and section 6.2 for some difficulties in the interpretation of response latencies. Recently, measurement of response latency has also been used in surveys (Bassili and Fletcher, 1991; Bassili, 1993).

24 See Abelson (1988); Judd and Krosnick (1982); Krosnick and Schuman (1988); Schuman and Presser (1981); Raden (1989). In their recent book, Eagly and Chaiken (1993) mentioned a monograph on attitude strength edited by Petty and Krosnick, which was not available, however, when this chapter was written.

25 In the eighties, much research has focused on the organization of political cognitions: see the volume on "Political Cognition" edited by Lau and Sears (1986); Hamill, Lodge and Blake (1985); Milburn (1987); Lodge and Hamill (1986).

26 "At the lower end of the continuum is the nonattitude. No a priori evaluation of the attitude object exists in memory. As we move along the continuum, an evaluation does exist and the strength of the association between that evaluation and the object and, hence, the chronic accessibility of the attitude, increases. In the case of a weak association, the attitude can be retrieved via an effortful, reflective process but is not capable of automatic activation. At the upper end of the continuum is a well-learned, strong association that is likely to be activated automatically upon mere observation or mention of the object." (Fazio, 1989, p. 159-160).

27 Such as accessibility and number of links (Judd et al., 1991), knowledge and constraint (Norpoth and Lodge, 1985), knowledge and crystallization (Norpoth and Lodge, 1985).

28 Such as those between stability and constraint, and importance (see the section on "Respondent Characteristics"), accessibility and importance (Krosnick, 1989), accessibility and centrality (Bassili, 1993), and complexity and importance (Tetlock, 1989).

29 See Hastie and Park (1986); Lodge, McGraw and Stroh (1989).

30 See Krosnick (1989); Fazio (1986, 1990a); Raden (1985).

31 See Eagly and Chaiken (1993); Olson and Zanna (1993). However, Converse (1970) and Fazio (1989) argue that most studies on attitude change carried out in psychological laboratories can be interpreted as studies on attitude formation, since they deal with issues which are highly unfamiliar to the subjects who have to express their 'attitudes' on these issues.

32 See for example the discussion started by E. Smith (1980), disputed by Nie, Verba and Petrocik (1981), Abramson (1981), E. Smith (1981); the work by Klingemann (1973, 1979) and by Pierce (1970; Pierce and Hagner, 1982, 1983; Hagner and Pierce, 1982); Cassell (1984).

33 See Nie and Andersen (1974), disputed by LeBlanc and Merrin (1977), Sullivan, Piereson and Marcus(1978), Bishop, Oldendick, and Tuchfarber (1978), Bishop, Oldendick, Tuchfarber, and Bennett (1978), Bishop, Tuchfarber, and Oldendick (1978a, 1978b), Nie and Rabjohn (1979a), Sullivan, Piereson, Marcus and Feldman (1979), Bishop, Oldendick, Tuchfarber and Bennett (1979) and Nie and Rabjohn (1979b);
see also W. Bennett (1976); Nie, Verba and Petrocik (1976); Brunk (1978), disputed by Petrocik (1978); and Converse and Markus (1979).

34 In more recent years, similar processes of politicization are going on with regard to environmental issues.

35 A question on economic welfare, for example, was worded as follows in 1956: "The government in Washington ought to see to it that everybody who wants to work can find a job. Now would you have an opinion on this or not? (If yes): Do you think the government should do this?"
The 1964 format was: "In general, some people feel that the government in Washington should see to it that every person has a job and a good standard of living. Others think the government should just let each person get ahead on his own. Have you been interested enough in this to favour one side over the other? (If yes): Do you think that the government should see to it that every person has a job and a good standard of living *or* should it let each person get ahead on his own?"

36 See Carmines and Stimson (1982) for an analysis of racial issues; Hurwitz and Peffley (1987), Chittick, Billinsley and Travis (1990), Wittkopf (1986), and Kegley (1986) on foreign affairs; Knoke (1979), and McClosky and Brill (1983) on the structure in various domains; Sullivan et al. (1979), Nie and Rabjohn

(1979a), and Nunn, Crockett and Williams (1978) analyzed Stouffer's tolerance items; Inglehart (1985) post-materialism; Brown (1970) freedom and equality; Chong et al. (1983) democratic and capitalist values.

37 Similarities in the wording of different questions about single issues may have produced this kind of within-issue constraint.

38 See Bishop and Frankovic (1981), and Kent Jennings (1992) on the U.S.; Converse and Pierce (1985) on France; Middendorp (1978) on the Netherlands; Putnam, Leonardi and Nanetti (1979) on Italian elites.

39 E.g. Wray (1979), Axelrod (1967), Bishop (1976), Bishop, Oldendick and Tuchfarber(1978), Nie and Anderson (1974), Judd, Krosnick and Milburn (1981), Jackson (1979).

40 E.g. Bennett (1976), Judd and Milburn (1980), Erikson (1979).

41 E.g. Sullivan et al. (1978); Bennett (1976); Judd et al. (1981); Mueller and Judd (1981); Leighley (1991).

42 E.g. Achen (1975); Brown (1970); Erikson (1979).

43 In fact, all of the counter-arguments offered by McGuire (1985) in his short review of the 'Converse debate' can be interpreted as specifications of the conditions under which stability and constraint will be greater.

44 Item nonresponse is also often assessed by "don't know" answers. The meaning of such answers is more ambivalent, however. As T. Smith (1984) pointed out, a "don't know" answer does not necessarily mean that a person does not have an opinion on an issue. It can also be given by a respondent who has a controversial opinion or an opinion that does not match the response alternatives.

45 Bourdieu (1979); Ferber (1966); Filion (1975); Francis & Busch (1975); Bethlehem and Kersten (1986); S. Bennett (1988); Reuband (1990); Duncan and Stenbeck (1988).

46 Schuman and Presser (1981); Andrews (1984); Krosnick and Schuman (1988); Tourangeau and Rasinski (1988); Tourangeau, Rasinski and Bradburn (1989); Bishop (1990); Krosnick (1991); Schwarz and Sudman (1992).

47 Pierce and Rose (1974), disputed by Converse (1974) and Rose and Pierce (1974); Achen (1975), disputed by Hunter and Coggin (1976), Stephens (1976), Arrington (1976), Achen (1976) and Etheredge (1977); Dean and Moran (1977); Erikson (1978, 1979); Jackson (1979). These were inspired by models of analysis of panel data, notably Heise (1971), Wiley and Wiley (1971) and Wheaton et al. (1977). Similar analyses on new data are reported, which try to separate 'true' attitudes from error: Judd and Milburn (1980), disputed by Converse (1980), Martin (1981), S. Smith (1981), Milburn and Judd (1981) and Judd, Krosnick and Milburn (1981); Norpoth and Lodge (1985).

48 The major differences are:
- whether the model allows for 'true' attitude change;
- whether the model permits correlated measurement error;
- whether it is assumed that measurement error is the same for all respondents or different for respondents with different educational levels or political sophistication.

In addition to these differences in assumptions, there are also differences in the data that have been used, due to recodings (e.g. dichotomization) and the inclusion of "no opinion" answers.

49 Converse (1964a) also used the answers to open questions to further assess the problem of reliability. Converse assumed that a specific issue would be central to those respondents (or issue public) who started to talk about it in their answers to open questions. The test-retest reliability of items dealing with these issues was much higher for these respondents than for respondents who did not mention the issue in their answers to open questions.

50 Cronbach (1960) also said that reliability coefficients also depend on the group of respondents who are interviewed, be it in a different way than Converse meant: "The reliability coefficient depends on the spread of scores in the group studied" (p.129).

51 In the 'epilogue' a further criticism of the idea of a 'true' attitude is given.

52 This is not to say that reliability is only a characteristic of the respondents. The level of crystallization found will also depend on the way the questions are asked and the issues they deal with.

Chapter 3 The social significance of producing political opinions

1 Bourdieu is less interested in the cognitive representation of attitudes, but more in the actual manifestation of opinions and in the games and interests behind them. See also the 'epilogue'.

2 See for his studies on the political field Bourdieu (1973a, 1973b, 1976a, 1977b, 1979, 1980d, 1980e, 1981a, 1981b, 1982a, 1984a, 1987b, 1988, 1989, 1993a); Bourdieu and Boltanski (1976); Bourdieu and Champagne (1989); Bourdieu and Christin (1990). Raphael (1989) gives an outline of Bourdieu's political sociology.

3 See especially Bourdieu (1979) and Bourdieu (1980a), and some interviews with Bourdieu (1987a, 1992). Brubaker (1985), Dimaggio (1979), Garnham and Williams (1980), and Honneth (1984) give critical reviews of Bourdieu's work. Robbins (1991) provides a detailed outline of the work of Bourdieu and its development.

4 At the risk of simplifying them, some of Bourdieu's criticisms of other theories will be summarized very briefly in this and the following note to clarify his position in the field of social sciences. Unlike the structuralists (especially Lévi-Strauss), Bourdieu argues that actors are not just executors of cultural rules. Unlike De Saussure, Bourdieu argues that speech is not just the execution of language as a system of objective relationships. Unlike Marxists, and more like Weber, he argues that mental structures and cultural products are not just an epiphenomenon of the economic substratum. Bourdieu also points out that the traditional use of statistics in sociology implies an unjust reification of social structures, and that statistics should always be complemented by ethnographical descriptions which can reveal the social processes lying behind those structures. (Bourdieu, 1987a, 1980a, 1992).

5 Unlike psycho-analysis, Bourdieu conceives of processes such as repression as social, not as individual processes. Against behaviorism, Bourdieu argues that stimuli will only elicit reactions from those people who are adjusted to the social structures in which the stimuli have social impact. Bourdieu also describes psychological practices, such as psycho-therapy and intelligence tests, as cultural products which are an expression of the world outlook of certain class fractions. Unlike Sartre, Bourdieu argues that the possibility of formulating one's life project in freedom only exists under certain social conditions. Unlike Elster, he argues that the capacity to act rationally is also bound by social conditions. Furthermore, Bourdieu argues that ethnomethodologists (e.g. Goffman), studying situated practice in detail, forget the social structures in which situated action takes place. (Bourdieu, 1987a, 1980a, 1992).

6 See Bourdieu and Christin (1990), Bourdieu (1992). See also Memmi (1989); Lenoir (1992).

7 See Champagne (1990) for the role of action groups and Champagne (1991) for the role of the media.

8 See especially Bourdieu and Boltanski (1976).

9 These kinds of processes are studied by political scientists as 'agenda setting'.

10 For a more detailed description of the logics of delegation see Bourdieu (1984a).

11 Of course, many more specific studies on political consumption, participation, and delegation have been carried out by other social scientists; see for example the political science textbook edited by Van Deth (1993).

12 The value and impact of an opinion will also depend on the *situation* in which it is expressed. Situations which carry more political weight, such as meetings of parliament or the readers' letters in a 'quality' newspaper, require more strictly that the opinions offered should be legitimate political opinions than others. In a referendum or election, for example, all opinions count equally, irrespective of how they have been arrived at. Furthermore, the value of an opinion also depends on the authority or status of the *person* expressing it. Bourdieu (1982a) gives the example of a city major who gains a profit by speaking in dialect. But he can only make this profit because he is also competent to speak the official language, whereas such a profit would be impossible for someone who can only speak in dialect. In the same way, politicians can gain a profit by explaining political issues in an easy, everyday language, but if they do not master the legitimate political language they are always at risk of being denounced as a 'populist'.

13 Bourdieu first developed his criticisms of the political opinion survey in the early seventies in his papers "L'opinion public n'existe pas" (1973a) and "Les doxosophes" (1973b). Later on, he elaborated them, especially in chapter 8 of "La distinction" (1979), entitled "Culture et Politique" and in an appendix to this book "Associations: A Parlour Game", which is a restatement of an earlier article entitled "Le Jeu Chinois" (1976a); furthermore, in an exposé of the same title "Culture et Politique" (1984), and in an exposé,

published as "Le Sondage: Une 'Science' sans Savant" (1987b). See also e.g. Champagne (1990); Gaxie (1990); Michelat and Simon (1990). Champagne (1990) gives a critical review of the reception of Bourdieu's theory on opinion polls.

14 In contrast, Bourdieu (1992) put forward his program of a reflexive sociology, which explicitly states that it is necessary in scientific analyses to incorporate the relationship between the researcher and his object of study as well as the way a researcher constructs his object of study, so as to prevent the relationship between a researcher and his object from being projected in an uncontrolled manner on the object itself. See also Bourdieu, Chamboredon and Passeron (1968), Pels (1989). See also the 'epilogue'.

Chapter 4 Toward research hypotheses

1 One should realize however, that the acceptance of this assumption is, itself, the result of a historical process. As Champagne (1990) explains, public opinion was not always seen in terms of 'one man, one vote': in earlier times the competence to participate in public debates was limited to specific elites.

2 In the 'epilogue', we will indicate how open interviews can be used to give voice to citizens in such a way that they can talk about their own problems of everyday life, independently of the dominant political principles of opinion production.

3 Converse (1964a), too, pointed out the possibility that a similar distinction between experts in the field and spectators of that field can be made in other domains, like religion.

4 See for example Aakster (1986) on concepts used in alternative medicine; Verbrugh (1978, 1983) on the paradigms of orthodox and alternative medicine; Berliner and Salmon (1980) on the division between holistic and scientific medicine.

5 For example, the dynamics of the scientific field are not entirely rational (Bourdieu, 1976b). This is illustrated very well by the appraisal of alternative medicines by orthodox medicine (see Webster, 1979; Vroon, 1983). The contacts between doctors and their patients are also not guided by scientific rules.

6 It is already difficult to choose good terms to distinguish different types of medicines. First, on almost all designations of medicines some exceptions can be made. Second, different terms are not neutral descriptions, because they have an interest in the struggle between different medicines. 'Alternative medicine' has become the most widespread term in the Netherlands and will be used here mainly for pragmatic reasons.

7 See Gevitz (1988), Salmon (1984). In fact, the political interventions in the processes of legitimation of alternative medicine are a good illustration of the politicization of social problems by political committees as described in the previous chapter (Westerhof, in preparation). In the Netherlands, different political committees have reflected on various politically important aspects of alternative medicine, such as legislation, financial aspects, public access, and quality standards (Muntendam, 1981; N.R.V., 1986, 1988a, 1988b, 1990; Gezondheidsraad, 1993).

8 See for example Foucault (1963); Armstrong (1983), Freund (1982), Rolles (1988).

9 Accordingly, studies on ideas about health and illness are often presented as studies of the 'lay' perspective (e.g. Blaxter, 1983; Calnan, 1987; Crawford, 1984; D'Houtaud and Field, 1984). Research into these ideas, often carried out in the tradition of social representations (Herzlich, 1973, 1984), is almost exclusively done by means of open interviews. Survey research using closed opinion questions is not often found (but see Visser, 1988; Furnham and Smith, 1988).

10 see C.B.S. (1983, 1988); N.I.P.G. (1980); Visser (1988, 1989, Visser, Peters and Rasker, 1990) for studies on the clientele of alternative healers in the Netherlands.

11 M. McGuire (1988), Cowie and Roebuck (1975), Foltz (1987), and Glik (1988, 1990) provide some studies on the production of belief in alternative healing settings.

Chapter 5 Design of the study and measurement procedures

1 Items used by Halfens (1985), Furnham and Smith (1988), Visser (1988), and Wallston et al. (1976) provided some examples.

2 To check for the readability of the items Flesch' readability yardstick was used. This yardstick was developed by Flesch (1948). It weighs the mean number of words in a sentence and the mean number of

syllables in a word. Scores range from 0 (most difficult) to 100 (least difficult). Douma (1960) adapted the yardstick to the Dutch language. He calculated the readability as
206.84 - 0.77 * (number of syllables per 100 words) - 0.93 * (mean number of words per sentence).
For the items used in study 4 the readability yardstick equals 54.4. According to Douma's interpretation this is 'fairly difficult'.

3 In pilot study 3 a scale of 7 categories was used, with categories ranging from 'disagree very strongly' to 'agree very strongly'. 'No opinion' was provided as an eighth response option. The 7 items on the political field have an internal reliability coefficient alpha of .77. They load from .38 to .76 on a 1-factor-solution with an explained variance of 34%. The 7 items on the field of medicine have an internal reliability coefficient alpha of .72. A one-dimensional factor analysis results in an explained variance of 28%. Except for item 14 (with a loading of .27) the factor loadings are above .35.

4 After having read Parducci's article, however, I looked around for ratio judgements in everyday life, and did in fact hear some remarks like "that's 10 times worse".

5 See appendix 4 for some problems with some other instruction tasks which were used in pilot studies 1 and 2 as a second exercise.

6 In pilot studies 1 and 2, respondents were asked to give a higher score than the reference if they agreed with an item and a lower score than the reference if they disagreed. Because some respondents use difference scores, the disagree scores were more extreme than the agree scores. For this reason respondents were always asked to give scores higher than the reference, whether they agreed or disagreed. See appendix 4.

7 Fazio (1990b) did not have these problems, because he did not use long verbal statements but words and images. Respondents only had to give an 'agree' or disagree' answer by pushing one button.

8 See, for example, Saris (1991), Kiesler and Sproull (1986). Computerized and paper-and-pencil versions of equivalent tests have frequently been compared in psychological testing, resulting in some guidelines for computerization (A.P.A., 1986), which were taken into account in the computerization of the questionnaire in the present study. See Burke and Normand (1987) for a review of computerized testing.

9 On the political field this test is a slightly revised version of a test presented in a textbook on sociology for pre-university schools (Rijpkema and Schuurman, 1987).

10 See Vosmeer (1992) for full details on the recruitment procedure.

11 Due to the time constraints of the research project and to some unexpected cuts in finances, it was not possible to interview a greater number of respondents, or to recruit a greater number of sophisticated respondents on the medical field.

12 The differences in recruitment strategy used in the pilot studies and in the present study demonstrate that a more official presentation of the researcher results in higher response rates. In the first pilot study only 28% of the people approached in a home-to-home canvass agreed to cooperate. In the second pilot study an official identification card of the University of Nijmegen was shown during the home-to-home canvassing. The response rate was 35%. Sending an official letter in advance and visiting each probable respondent three times in the present study raised the response rate to 47%.

13 Gemeente Nijmegen (1989, 1991).

14 Unfortunately, due to the way in which addresses were sampled from the city register, a large part of these addresses were exactly the same as those used in a survey carried out during the winter of 1990-1991 on police performance in Nijmegen.

15 Although one would expect corresponding figures for neighborhoods with lower income and lower educational levels, this is not always the case. In the city council statistics, the neighborhoods distinguished according to income level are smaller units than the neighborhoods distinguished in the tables on educational level, which always comprise several neighborhoods with different income levels.

16 In view of these kinds of reactions, which illustrate both the lack of self-ascribed competence and the way in which competence to form an opinion about politics is ascribed to others, the word politics was avoided in the final study. The domain was referred to as 'beleid', a Dutch word meaning 'policy', but without the direct connotations of that word on the political field, or as 'how things should be done in the Netherlands'. Hence, these kinds of reactions were not found during the recruitment of the city sample (negative reactions to the word politics, however, did appear later on, when the word was mentioned during the interview). The word politics was used only for the politically sophisticated group, since it could be assumed that those people were greatly interested in the field.

Chapter 6 The assessment of attitude structures

1 As both judgements are made with some error, the 'error-in-both-variables' regression coefficient has been used: ß=Sy/Sx (Lodge, 1981a, p.50). This coefficient will be used in all analyses that relate to the cross-modality match of both the metric and the instruction task as well as the attitude task.
2 On the political field they were items 2 (social security), 4 (development aid), and 7 (multinationals); on the healing field they were items 11 (gift of healing), 12 (message of illness), 14 (science negative), and 17 (reincarnation).
3 This is done in order to make sure that the results are comparable to the results of an analysis of constraint by the intercorrelations among items, to be performed in the following sections.
4 Another measure of extremity would be the standard deviation of the item scores. This measure is highly related to the mean of the absolute values of the item scores (r = .87 on the political field; r =.92 on the medical field). Since it is possible to calculate a reliability coefficient for the mean of the absolute value of the item scores, this latter measure is used here.
5 Hufford (1988, p.238) concludes: Folk medicine (including alternative therapies) "generally accommodates modern medical knowledge quite easily, accepting medical ideas of etiology as one set of relatively immediate causes: the germ caused the disease, but it caused it in a particular person at a particular time because of sinfulness, evil eye, poor diet, spinal subluxation, decreased vital energy, (all examples may be advanced singly or in concert), and so forth."
6 Post (1990) even found that doctors who prescribe more alternative medicines also prescribe more orthodox medicines.
7 The words lower, middle and higher are only used for pragmatic reasons: associations with other variables can be easily described. An evaluation or recognition that higher means better is not implied.
8 Since involvement is related to sex and social position, the design is not orthogonal. Therefore, a least-squares method was used to estimate the independent effect of the variables. A hierarchical estimation procedure was used, which requires an a priori ordering of all terms in the model (option 'hierarchical' in the anova-procedure of spss-x). Each effect is adjusted only for those preceding it in the ordering (cf. Overall and Klett, 1972; Bock and Brandt, 1980). Since we wanted to know whether the results for involvement could be ascribed to social position and sex, such an a priori ordering appears justified. The order that was chosen was social position first, then sex and involvement last. The contribution of involvement, controlled for social position and sex, could thus be assessed. One might question the order of social position and sex, but changing the order of social position and sex had no effect on the results. All analyses were carried out on the city sample and the politically sophisticated (N=135). Since the number of respondents in each cell in the full factorial design is rather low, third order interaction effects were not computed. The lowest number of respondents in a cell is 7.
9 Because the number of respondents in each cell was not equal in the analysis, a least squares estimation procedure was used. Since social position and sex are not related to involvement in the medical field, it is not plausible, however, to assume that the differences according to involvement will be related to social position or sex. It is, therefore, difficult to specify a hierarchy of independent variables. Hence, a complete linear-model analysis (Overall & Klett, 1972) was carried out (option 'unique' in the anova-procedure of spss-x). In this analysis each effect is adjusted for relationships to all other effects in the model. The analyses were carried out for the city sample and the sophisticated in medicine together (N=114). Since the number of respondents in the cells is rather low, third order interaction effects were not computed. The lowest number of respondents in a cell is 3.

Chapter 7 Summary and conclusion

1 Instead of measuring the time between the presentation of one item and the presentation of the next item on the computer screen, it would have been better to measure the time between the presentation of an item and pressing the button indicating 'agree' or 'disagree', so that the time necessary to express the magnitude judgments is not included in the response time.

Epilogue

1 One might question how radical the discontinuity is. It may be better to see ethos and logos as two poles on either side of a continuum. On the one side there are opinions derived from yardsticks that are reflexively known and are recognized as legitimate principles in a cultural field. As described in chapter 2, these yardsticks range, in the political field, from abstract ideological principles like liberalism-conservatism or left-right via values with more practical connotations, such as freedom or equality, to social groups, like race or political parties, which are much more concrete and therefore closer to the ethos. But all these yardsticks are specifically adapted to and legitimate in the political field. The ethos itself, as the opposite side of this dimension, adds other yardsticks still: here, people reason from everyday experience which need not be seen as related to political realities.

2 The theoretical formulation of 'le sens pratique' has developed over the thirty years that Bourdieu carried out his studies. Subsequent theoretical formulations can be found in "Esquisse d'une Théorie de la Pratique" (1972), "Outline of a Theory of Practice" (1977c) and "Le Sens Pratique" (1980a). Robbins (1991) gives a detailed and fascinating analysis of the development of Bourdieu's work. While Bourdieu has often reflected on his own theory, not only in writings, but also in speech (see Bourdieu, 1987a, 1992), he has always stressed that these theoretical descriptions should not be considered separate from the empirical analyses guided by them. Elaborations and criticisms of Bourdieu's theory of practice can be found, for example, in Coenen (1989), Devisch and de Boeck (1989), Mortier (1989), Pinxten (1989). Voestermans (1991, 1992) and Welten (1989, 1991, 1992) elaborate on Bourdieu's theory on habitus and practice in relation to psychology.

3 See Voestermans (1991, 1992) and Welten (1988, 1989) for an elaboration on the corporeal nature of the habitus and the consequences for a psychology that is mostly concerned with cognitions.

4 Even the production of opinions from the logos versus those produced from the ethos have their place in these basic social distinctions, where logos is dominant and ethos dominated. Thus, it was found in the present study that on both fields respondents with higher social positions relied more on the modality of the word. Attempting to master the competence to produce opinions from the logos can thus be seen as a specific form of 'noblesse oblige'.

5 The concept of habitus therefore plays a crucial role in understanding the dialectics of subjectivation and objectivation of culture (Welten, 1988), without subjectivist or objectivist reductions.

6 Bourdieu's theory on the habitus is closer to older conceptions of attitudes. First, before social psychologists made attitudes into cognitive entities, attitudes referred to bodily postures in sculpture and painting (Fleming, 1967; see also Welten, 1988 for a similar, but psychological, conception of attitudes). Thomas and Znaniecki (1918-20/1974), who are credited for being the first to define social psychology as the study of attitudes, see attitudes as a kind of predisposition to activity, which is the individual counterpart of social values (for example objectified in instruments, coins, a piece of poetry, a university, a myth, a scientific theory etc.) not unlike the habitus is a structure predisposed to activity in accordance with the field in which it was acquired. As early as the first review article on attitudes, Allport (1935) neglects the connection with social values and stresses only the predisposition to act in a certain way. Nowadays, attitude structures have become a legitimate object of study in themselves, even without any reference to practice.

7 This section focuses on the works of Billig (1982, 1987, 1991; Billig et al., 1988), Potter and Wetherell (1987, 1988), and Edwards and Potter (1992). For more or less similar perspectives see Lalljee et al. (1984), Jaspars and Fraser (1983), J. Smith (1987). 'Social constructionism' (e.g. Gergen, 1985), the Russian 'socio-historical' tradition (e.g. Cole, 1988, 1990) and 'cultural psychology' (e.g. Shweder and Sullivan, 1993; Voestermans, 1992; Welten, 1989) are also rather close to this perspective (see Edwards and Potter, 1992). From this perspective other psychological concepts have been criticized as well, like categorization (Billig, 1987), social representations (Billig, 1991), and memory and attributions (Edwards and Potter, 1992).

8 One might ask whether it is still useful to speak of attitudes, when such a radical reconceptualization takes place. Concepts like opinions, ideology, views (Billig, 1991), social representations (Jaspars and Fraser (1983) and discourse (Potter and Wetherell, 1987) have been advocated as possible contenders.

9 See also Bourdieu (1982a) and Potter and Wetherell (1987) for a critique of this view of language.

10 The many intricate classifications which linguists have developed to describe language use will not be discussed here.

11 This focus is shared with Bourdieu's sociolinguistics and conversation analysis. It stems from some ancestral theories, such as Austin's speech act theory, and Goffman's social interactionism. Chomsky's psycholinguistics and Saussure's structural linguistic theory are more critically received. See Bourdieu (1982a), Potter and Wetherell (1987), and Moerman (1988) for the use and criticisms of these theories in the three theoretical currents presented in this chapter. Thompson (1984, 1991) made an elegant analysis of Bourdieu's position in respect to other language theories.
The idea of language as practice is not unknown in mainstream social psychology. In his review on language use and language users in the "Handbook of Social Psychology" Clark (1985) also develops a perspective on language as a practice from more or less the same theories. He does not draw a link with attitudes, however.

12 Of course, a large number of studies on persuasion are also carried out on the basis of the cognitive paradigm in the social psychology of attitudes. However, these studies focus on the cognitive processing of persuasive messages by the receiver of those messages and the consequential attitude change (see especially the elaboration likelihood model of Petty and Cacioppo (1986) and the heuristic-systematic model of Chaiken, 1987). T. Van Dijk (1990, p.173) observes a "lack of a direct link between persuasive discourse and opinion change". Although social influence is an important research topic in social psychology, it has rarely been related to the study of attitudes (Eagly and Chaiken, 1993).

13 For example, dilemma's ("on the one hand..., on the other hand..."); disclaimers ("I'm no racist, but..."); extreme case formulations ("everybody does it"); consensus and corroboration ("other people agree with me", "you would have done the same thing if you were in my place"). Edwards and Potter (1992) give an outline of these kinds of discursive devices.

14 Besides the study of stories, there is a growing emphasis on dialogue in contemporary psychology (see Hermans, Kempen and Van Loon, 1992; Hermans and Kempen, 1993; Sampson, 1993; Markovà and Foppa, 1990).

15 Of course, some variations can be found in the expression of answers according to mode of administration, interviewer characteristics and behavior, the specific questions asked, as the studies on survey quality showed (see chapter 1). These variations should be taken seriously, and cannot be defined as 'bias' from the perspective developed in this book.

16 See Spradley (1979); Mishler (1986); Billig (1987); Bourdieu (1991, 1993a, 1993c); Pialoux (1992); Weber (1992).

17 See for example Lane (1962), Westerhof (1991), Bourdieu et al. (1993) on the constitution of meaning in politics in the modality of the ethos. See for example Herzlich (1973) and Calnan (1987) on the subtle differences and similarities between the constitution of meaning from a 'lay' and 'official' perspective in medicine and M. McGuire (1988) and Vosmeer (1992) on the meaning of alternative medicine from the patient's point of view.

18 At the same time this is also the political relevance of the ethnographic interview: to a far greater extent than surveys, which project political opinions about politically important issues on respondents, the ethnographic interview can give insight in the everyday 'misère' of the 'ordinary' man, who is otherwise seldom heard in public (Bourdieu, 1993a).

19 For example, studies have been carried out on argumentation (Billig, 1991) and narration (Bruner, 1990) between family members. Billig (1991) also studied the presentation of attitudes in different political situations throughout people's course of life. Furthermore, the presentation of attitudes in a specific field has been studied among professionals (e.g. in political commissions (Lenoir, 1992) or in medical scientific journals (Webster, 1979)) and between professionals and the public (e.g. public hearings (Defrance, 1988) and manifestations (Champagne, 1990), or visits to doctors (Mishler, 1986) and alternative healers (M. McGuire, 1988).

20 A break with common sense also implied a rupture with the extreme subjectivism of social psychology, which reproduces the particular western concept of the person as "a bounded, unique, more or less integrated motivational and cognitive universe, a dynamic center of awareness, emotion, judgement, and action organized into a distinctive whole and set contrastively both against other such wholes and against a

social and natural background" (Geertz, 1983, p.62). See also Sampson (1983), and Henriques et al. (1984).

21 This legitimization should therefore be described as ideological in the negative, Marxist sense of the word.

22 Using different traditions for this purpose is only one way of arriving at a more comprehensive perspective on one's research object. Another way would be to make a detailed study of the scientific field. Such a study would reveal, for example, that the history of social psychology and the development of the attitude concept in the specific sense attached to it by social psychologists and especially the development of attitude measurement are highly intertwined, to the point that attitudes are not only used as a concept to describe social reality, but also as a concept that credited social psychology as a discipline of the social sciences with the scientific capital it needed.

23 In an older article, Bourdieu (1973c) explains the three forms of theoretical knowledge: subjectivist (exemplified by Sartre), objectivist (exemplified by Lévi-Strauss) and praxeological knowledge, which transcends the distinction between subjectivism and objectivism (see also Bourdieu, 1980a).

24 Although very critical of academic psychology (see e.g. the preface to "La Noblesse d'Etat" (Bourdieu, 1989)) and psychology as a practice (see chapter 6 of "Distinction" (Bourdieu, 1979) as well as his article on intelligence tests (Bourdieu, 1980f)), Bourdieu himself does not contribute to the development of the radically different psychology that he calls for.

25 This does not imply that this is all there is to say about attitudes. For example, different evaluative dimensions should be distinguished in addition to the agree-disagree dimension mentioned here. Other modalities of presenting attitudes besides reflection, narration or argumentation should be studied as well, for example metaphors (Lakoff and Johnson, 1980).

Appendix

1 Text in italics specify the correct answers on the knowledge questions.

2 This strategy gives some credit to the finding of Saris et al. (1987) that more valid judgements are obtained when the researcher specifies not only one reference score, but a maximum score as well.

3 The technical details of this analysis are as follows. The analysis was performed by the Manova procedure of SPSSX. A repeated measurement design was specified. As the metric and the sound task have a different number of items (7 and 6 respectively), a special transformation matrix was specified to obtain the orthogonal contrasts between the tasks, the modalities and the individual items. The first rows of this matrix are:

```
 1  1  1  1  1  1     1  1  1  1  1  1  1     1  1  1  1  1  1     1  1  1  1  1  1  1
 6  6  6  6  6  6     6  6  6  6  6  6  6     6 -7 -7 -7 -7 -7    -7 -7 -7 -7 -7 -7 -7
 1  1  1  1  1  1     1 -1 -1 -1 -1 -1 -1    -1  1  1  1  1  1     1 -1 -1 -1 -1 -1 -1
 6  6  6  6  6  6     6 -6 -6 -6 -6 -6 -6    -6 -7 -7 -7 -7 -7    -7  7  7  7  7  7  7
```

In each row the first 7 numbers correspond to the 7 numerical estimation scores of the metric task, the second 7 numbers to the 7 line drawing scores of the metric task, the following 6 to the 6 numerical estimation scores of the sound task and the last 6 to the 6 line drawing scores of the sound task.

The first row creates the total score, the second the contrast between the metric and the sound task and the third creates the contrasts between the numerical estimation and the line drawing modality. The fourth row specifies the interaction between task and modality.

The following rows of the transformation matrix specify the contrasts between an item and the first item in each task and modality. Thus, the 5th row is:

```
 1 -1  0  0  0  0     0  0  0  0  0  0  0     0  0  0  0  0  0     0  0  0  0  0  0  0
```

and the 20th row, for instance, is:

```
 0  0  0  0  0  0     0  0  0  0  0  0  0     0  1  0  0  0 -1     0  0  0  0  0  0  0
```

There are thus 6+6+5+5 rows that specify the contrasts between the individual items, resulting in a matrix with a total of 6+6+5+5+4 (=26) rows by 7+7+6+6 (=26) columns.

The default regression solution was used, which corresponds to a calculation of the unweighed means when there are no empty cells (as is actually the case). Social position and sex are specified as independent variables. An interaction term for these variables was also included. No significant differences were found according to social position, sex or the interaction between them.

SUMMARY IN DUTCH

Uitspraken en verhalen: Naar een nieuwe methodologie van attitude-onderzoek

In attitude-onderzoek wordt veelvuldig gebruik gemaakt van gestructureerde vragenlijsten waarbij ondervraagden hun mening moeten geven over een aantal *uitspraken*. Daarbij wordt er doorgaans stilzwijgend van uitgegaan dat alle ondervraagden een opvatting hebben over het betrokken onderwerp en dat alle antwoorden een opvatting weerspiegelen die ook daadwerkelijk in de vorm van die uitspraak bij de ondervraagden aanwezig is. In de hoofdstukken 1 tot en met 7 van dit proefschrift worden nagegaan in hoeverre deze uitgangspunten juist zijn. In de epiloog wordt een theoretisch en methodisch kader gegeven dat een eerste aanzet biedt om ook andere manieren van het uitdrukken van opvattingen te onderzoeken dan de in vragenlijsten gebruikelijke.

Om beter te begrijpen hoe het komt dat het huidige attitude-onderzoek zo sterk gedomineerd wordt door het gebruik van gestructureerde vragenlijsten wordt in *hoofdstuk 1* de geschiedenis van deze methode beschreven. Er blijkt een sterke verwikkeling van dit onderzoek met maatschappelijke praktijken die gericht zijn op het beïnvloeden van meningen, zoals reclame, verkiezingscampagnes en oorlogspropaganda. In de loop van deze eeuw is er onder attitude-onderzoekers een consensus ontstaan over de vraag wat goed attitude-onderzoek is. Ten eerste moet de steekproef representatief zijn voor de onderzoeksgroep. De representativiteit wordt bedreigd doordat niet alle mensen mee willen of kunnen werken aan een onderzoek. Ten tweede moeten de antwoorden zinvol zijn. Daarbij nemen attitude-onderzoekers op basis van theorieën over psychologische tests aan dat elke meting bestaat uit een 'echte' waarde en een meetfout. Uit de pogingen van onderzoekers om hun methode te verbeteren blijkt dat de 'echte' waarde, waarop hun interesse zich richt, de persoonlijke opvattingen van respondenten zijn die niet beïnvloed worden door de manier waarop de vragen gesteld zijn. Met andere woorden: het meetinstrument moet neutraal zijn.

Hoofdstuk 2 laat zien dat er niet zonder meer kan worden aangenomen dat mensen ook zo'n 'echte' persoonlijke opvatting hebben. Philip Converse verrichtte hiernaar 30 jaar geleden het eerste systematische empirische onderzoek. In de sociale psychologie werd er destijds van uitgegaan dat naarmate een onderwerp meer centraal staat in de aandacht van mensen hun meningen coherenter en stabieler zijn. In een representatieve Amerikaanse steekproef bleek echter dat de coherentie en stabiliteit van politieke opvattingen erg laag was. Converse concludeert hieruit dat slechts een gedeelte van de mensen een 'echte' mening had over de vragen. Zelfs nadat gevraagd was of zij wel een mening over de uitspraak hadden gaf een groot deel van de mensen een mening door willekeurig een antwoord te kiezen. Dergelijke willekeurige antwoorden noemt Converse '*nonattitudes*'.

In meer recent sociaal-psychologisch onderzoek naar de structuur en functie van opvattingen in het geheugen worden attitudes en nonattitudes opgevat als twee polen van een continuum. In dit proefschrift wordt hiernaar verwezen met de term '*centraliteit*' van opvattingen. Meer centrale opvattingen zijn gerelateerd aan meer kennis; ze zijn makkelijker toegankelijk in het geheugen, coherenter en complexer georganiseerd, duidelijker uitgekristalliseerd en stabieler.

Critici maken duidelijk dat echt willekeurige antwoorden minder vaak voorkomen dan Converse veronderstelde. De proportie nonattitudes blijkt samen te hangen met de mate waarin het politieke debat gepolariseerd is, met de vorm en inhoud van de vraagstelling (m.n. abstractie-nivo) en met achtergrondkenmerken van de ondervraagden (m.n. betrokkenheid bij de politiek, opleiding en sexe). De conclusie van hoofdstuk 2 luidt dan ook dat in attitude-meting niet bij alle ondervraagden een 'echte' waarde van een opvatting is vast te stellen. In tegenstelling tot wat vaak wordt aangenomen is de betrouwbaarheid daarom geen kenmerk van een onderzoeksinstrument maar een kenmerk van de relatie tussen onderzoeksinstrument en ondervraagde.

In de wetenschappelijke studies die in hoofdstuk 2 besproken werden, is nauwelijks aandacht besteed aan de vraag hoe het komt dat sommige mensen wel beschikken over 'centrale' attitudes en andere niet. Het werk van Pierre Bourdieu biedt inzicht in de sociaal-culturele processen die daarbij een rol spelen. In navolging van Bourdieu wordt in *hoofdstuk 3* het beantwoorden van attitude-vragen opgevat als een specifieke competentie. Deze wordt aangeduid als '*logos*'. De 'logos' impliceert dat respondenten met een zekere distantie reflecteren over de alledaagse sociale werkelijkheid. Uit het werk van Bourdieu wordt afgeleid dat deze competentie niet alleen is vast te stellen op basis van de louter cognitieve indicatoren van centraliteit die sociaal psychologen gebruiken: ze blijkt ook uit de manier waarop mensen politieke opinies 'consumeren' en deelnemen aan het politieke spel. Waar sociaal psychologen deze competentie beschrijven als een cognitieve vaardigheid, onderzoekt Bourdieu de sociale waardering ervan. Zo kan hij begrijpen waarom ze niet evenredig verdeeld is over de bevolking. Opvattingen worden net als alle andere cultuurprodukten sociaal gewaardeerd. De sociale waardering van politieke opvattingen komt tot stand in een maatschappelijk spel, waarbij het professionele veld van de politiek een belangrijke rol speelt. In dit veld moeten opvattingen op een manier verwoord worden die door de deelnemers aan het politieke spel als 'juist' of legitiem wordt gezien. Hoewel in principe iedereen het recht heeft politieke opvattingen te uiten, voelen veel mensen zich toch niet competent, omdat ze dit niet op de juiste manier (denken te) kunnen. Zo is het mogelijk dat mensen die wel over de juiste competentie beschikken hieraan sociaal aanzien ('distinctie') ontlenen. Met Bourdieu wordt geconcludeerd dat in attitude-onderzoek ten onrechte wordt aangenomen dat iedereen competent is om de vragen te beantwoorden en dat alle antwoorden op de vragen op dezelfde manier tot stand zijn gekomen.

In *hoofdstuk 4* wordt besproken hoe in de empirische studie met de middelen van het traditionele attitude-onderzoek deze impliciete veronderstellingen kunnen worden getoetst. Om de sociaal-culturele voorwaarden voor het hebben van centrale opvattingen beter te analyseren, werd niet alleen het politieke domein onderzocht maar ook het domein van ziekte en gezondheid. Aan dit domein ligt een andere ideologische polariteit aan ten grondslag dan aan het politieke domein: reguliere versus alternatieve geneeswijzen in plaats van links versus rechts. Daarnaast wordt verwacht dat de competentie om legitieme opvattingen te produceren op dit domein anders over de bevolking verdeeld is. Op het politieke veld wordt verwacht dat mensen die minder bij het veld betrokken zijn, mensen met lagere sociale posities (i.e. meer opleiding en hoger beroepsnivo) en vrouwen minder centrale attitudes hebben. Op het medische veld zijn sociale positie en sexe naar verwachting niet gerelateerd aan het hebben van minder centrale opvattingen, maar betrokkenheid bij het veld wel.

In *hoofdstuk 5* en *6* staan de onderzoeksopzet, het meetinstrument en de bevindingen van de studie centraal. De attitude-vragen op elk van beide domeinen, politiek en geneeswijzen, werden opgesteld in overeenstemming met de regels van attitude-onderzoek. Naast de attitude-vragen moesten de respondenten ook enkele achtergrondvragen beantwoorden en op elk domein een aantal vragen naar kennis en betrokkenheid.

Via een willekeurige steekproef uit het bevolkingsregister werden inwoners van Nijmegen tussen de 40 en 55 jaar geworven. Via partijen en vakbonden werden mensen geworven die sterk betrokken zijn bij het politieke veld. Via genezers werden mensen geworven die veel ervaring hebben met alternatieve geneeswijzen. De verdeling van de nonrespons en de redenen ervoor geven enkele aanwijzingen die de verwachtingen omtrent de sociale verdeling van de competentie op elk domein steunen.

Op elk domein werden valide en betrouwbare maten voor de centraliteit van opvattingen geconstrueerd: kennis, competentie, kristallisatie en coherentie. Respondenten die minder betrokken zijn bij het politieke veld blijken op grond van deze maten minder centrale opvattingen te hebben. Op het politieke veld blijkt dat respondenten met lagere sociale posities (op basis van opleidings- en beroepsnivo) en vrouwen minder centrale opvattingen hebben. De verwachtingen voor de verdeling van de competentie over het politieke veld zijn dus juist.

Respondenten die minder betrokken zijn bij het medische veld hebben daarover minder centrale opvattingen. Met betrekking tot de coherentie wordt echter gevonden dat de meest betrokken groepen niet zozeer verschillen van de minst betrokken groep in de mate van samenhang van hun antwoorden, maar wel in de wijze waarop de antwoorden samenhangen. Wanneer de minst betrokken groep instemt met de reguliere geneeswijze wijst ze de alternatieve geneeswijze af en vice versa. De meest betrokken groepen daarentegen stemmen meer in met alternatief naarmate ze ook meer instemmen met regulier. Op basis van de theorieën van Converse en Bourdieu wordt hiervoor als verklaring aangevoerd dat persoonlijke ervaringen kunnen leiden tot een andere

ideologische structurering van opvattingen dan wanneer men een domein alleen van 'horen zeggen' kent.

Op het medische domein blijken respondenten met lagere sociale posities minder kennis te hebben en minder competent te zijn, maar hun opvattingen blijken niet minder uitgekristalliseerd en coherent. Mannen en vrouwen blijken niet te verschillen m.b.t. de centraliteit van hun opvattingen over ziekte en gezondheid. De verwachtingen over de verdeling van de competentie op het medische veld zijn dus grotendeels juist.

Hoofdstuk 7 bevat de centrale conclusies van de studie. De gebruikelijke vooronderstellingen, dat iedereen een mening heeft over de vragen in een attitude-onderzoek en dat alle antwoorden op dezelfde manier gegeven worden, zijn onjuist. Het attitude-onderzoek berust inderdaad op een specifieke competentie voor het verwoorden van opvattingen. Uit het feit dat de competentie verschillend verdeeld is op verschillende culturele domeinen, en dat deze groter wordt naarmate men meer ervaringen met een domein heeft, kan geconcludeerd worden dat deze competentie niet moet worden opgevat als een individuele cognitieve capaciteit, maar als een sociale verworvenheid.

Omdat het inderdaad zo blijkt te zijn dat de competentie voor het verwoorden van opvattingen in de modaliteit van de logos een sociale verworvenheid is, waarover niet iedereen beschikt, ligt het voor de hand op zoek te gaan naar mogelijkheden om opvattingen te onderzoeken die op een andere manier tot stand komen. In de *epiloog* wordt hiertoe een eerste bescheiden aanzet gegeven. Tegenover de logos, waarin men met een zekere afstand tot de alledaagse praktijk systematisch en expliciet over de sociale werkelijkheid reflecteert, stelt Bourdieu de *'ethos'*. De ethos staat voor een directe, onbereflecteerde verhouding tot de sociale werkelijkheid, waarbij men juist verwikkeld is in de praktijk van alledag. Daarbij maken mensen maken gebruik van principes die niet zijn afgestemd op een specifiek cultureel veld zoals het politieke links-rechts principe. Of en hoe men zijn opvattingen verwoordt ziet Bourdieu als een strategische improvisatie die gebonden is aan de tijdsdruk van het moment en aan de machtsverhoudingen tussen de gesprekspartners.

In tegenstelling tot het heersende cognitieve paradigma van de sociale psychologie, waarin opvattingen gezien worden als evaluatieve *representaties* van de werkelijkheid in het geheugen, wordt in de *discursieve psychologie* als uitgangspunt genomen dat opvattingen in alledaags taalgebruik gepresenteerd worden. In plaats van de waarheid te spreken over de eigen opvattingen, zoals in attitude-onderzoek, gaat het dan om de constructie van betekenis en het overtuigen van anderen. Zoals taal ook gebruikt wordt om mensen dingen te laten doen of om een werkelijkheid te creëren, heeft taalgebruik hier dus een andere functie dan het doen van mededelingen of het beschrijven van de werkelijkheid. De *discursieve psychologie* onderzoekt op welke manier mensen in gesprekken proberen anderen te overtuigen van hun opvattingen en op welke wijze opvattingen beargumenteerd worden binnen sociale discussies en controverses. Een discursief element, dat in het kader

van dit proefschrift van belang is, is het *verhaal*. De *narratieve psychologie* analyseert de structuur en functie van verhalen. In verhalen presenteren mensen geïmproviseerd en onbereflecteerd hun opvattingen.

Terwijl in de discursieve en narratieve psychologie voornamelijk de structuur en functie van argumentaties en verhalen geanalyseerd worden, maken de *conversatie-analyse* en Bourdieu's theorie van de praktijk duidelijk dat argumenten en verhalen evenmin als de modaliteit van de logos los van de sociale context en de machtsverhoudingen tussen de gesprekspartners bestudeerd moeten worden.

Hoewel het in principe mogelijk is gesloten attitude-vragen te bedenken die dichter bij de praktische principes van de ethos staan, wordt in de epiloog geconcludeerd dat er twee inherente beperkingen aan het traditionele attitude-onderzoek zijn, die het ongeschikt maken voor de bestudering van opvattingen die verwoord worden in de modaliteit van de ethos. Ten eerste is het onmogelijk de verschillende manieren waarop respondenten betekenis geven aan de sociale werkelijkheid te onderzoeken. Open vragen in attitude-onderzoek kunnen daarbij behulpzaam zijn, maar het zijn voornamelijk interviews, waarin mensen verhalen kunnen vertellen naar aanleiding van eigen ervaringen, die onderzoek daarnaar mogelijk maken. Ten tweede is het onmogelijk om de strategische geïmproviseerde presentatie van opvattingen in verschillende situaties te analyseren. Daartoe dient de presentatie van attitudes in het alledaagse leven bestudeerd te worden.

Uit het feit dat verschillende methoden zijn afgestemd op verschillende manieren van het verwoorden van opvattingen blijkt dat er geen neutrale methoden bestaan. Het traditionele attitude-onderzoek sluit aan bij theorieën waarin opvattingen gezien worden als cognitieve representaties, terwijl interview-onderzoek en onderzoek naar opvattingen in het dagelijks leven aansluiten bij theorieën waarin opvattingen gezien worden als presentaties in alledaagse taal. Elke methode heeft dus zijn eigen vooronderstellingen die gebonden zijn aan het theoretisch kader van waaruit men werkt. In plaats van te spreken over 'data' of 'gegevens' moet geprobeerd worden te begrijpen hoe in verschillende methodes gegevens geconstrueerd worden vanuit een bepaald perspectief op de sociale werkelijkheid. Daartoe is het nodig een zo breed mogelijk theoretisch perspectief te ontwikkelen dat voorbijgaat aan arbitraire scheidslijnen tussen disciplines als psychologie, politicologie en sociologie en tussen theoretische stromingen als cognitieve en discursieve psychologie.

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In the meantime, I have found a new group of colleagues with whom I enjoy working in the department of psychogerontology.

Curriculum Vitae

Gerben Westerhof werd op 10 mei 1964 geboren te Utrecht. Na zijn eindexamen gymnasium ging hij in 1982 psychologie studeren aan de Universiteit van Nijmegen. In 1987 studeerde hij cum laude af op een scriptie over de 'locus of control' schaal van Rotter, een van de meest gebruikte schalen in de psychologie. Samen met Margo Rooyackers onderzocht hij de samenhang van deze schaal met politieke voorkeur en politiek activisme. Tijdens zijn studie verrichte hij voor de afdeling studentenzaken van de Universiteit van Nijmegen een onderzoek naar de behoefte aan studentenvoorzieningen onder HBO-studenten. Gedurende enkele maanden bereidde hij als medewerker aan de vakgroep cultuur- en godsdienstpsychologie het onderzoeksproject voor waaruit dit proefschrift is voortgekomen. Daarna voerde hij het onderzoek gedurende 5 jaar uit als assistent in opleiding. Hij verbleef een half jaar aan het Centre de Sociologie Européenne du Collège de France te Parijs dat onder leiding staat van Pierre Bourdieu. Momenteel vervult hij zijn vervangende dienstplicht bij de vakgroep psychogerontologie aan de Universiteit van Nijmegen. Hij werkt daar aan een cultuur-vergelijkend onderzoek over de ideeën over zelf en leven bij jongeren en ouderen in verschillende landen.

and stories statements

In opinion surveys it is tacitly assumed that all respondents have opinions about the questions which are asked them and that all answers are based on well-formed attitudes. This study critically assesses these assumptions, both from a psychological perspective on the cognitive structuring of attitudes and from a sociological perspective on the social impact of different ways of expressing opinions. It is found that holding attitudes about the political and the medical domains is related to the social and cultural dynamics of these fields and of society in general. Hence, the opinion survey is not the neutral method it is usually taken for. It is necessary to search for other methods which can bring different aspects of opinions to the fore than those looked at in surveys.

Gerben Westerhof carried out this study at the Department of Cultural Psychology of the University of Nijmegen, the Netherlands. He worked at the Ecole des Hautes Etudes en Sciences Sociales in Paris for one semester and is currently conducting research on culture, self and the life course at the department of psychogerontology of the University of Nijmegen.

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