

**TOLERANCE OF AMBIGUITY: A CONTEXT-SPECIFIC
CONSTRUCT**

by

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Abstract

This thesis provides some evidence of variability in cognitive style, and refutes the notion of it being a stable, generalisable personality trait. The study is statistical in nature and uses the cognitive style construct tolerance/intolerance of ambiguity as the main dependent variable. The main independent variables are context, content, ideological conservatism and ideological commitment.

The theoretical context for this thesis is the long-standing debate about the nature of cognitive style within the field of social psychological research. The four major theories constituting this context are the theory of authoritarianism, the theory of extremism, context theory and value pluralism theory. However, these appear to be inadequate to explain the *contextual* variability of value conflict. Hence an attempt has been made to develop a new theory, tentatively named the contextual value conflict theory.

The founding hypothesis of contextual value conflict theory is that the different characteristics of the manipulated contexts would present subjects with different levels of contextual value conflict, thus resulting in the expression of different levels of tolerance of ambiguity. The assumption was that higher conflict leads to higher attitudinal ambiguity tolerance and lower conflict to lower attitudinal ambiguity tolerance.

The quantitative part of the research is constituted by two studies in which the Attitudinal Ambiguity Tolerance (AAT) Scale (Durrheim, 1995) was used to measure cross-context and cross-content variations in tolerance/intolerance of ambiguity. This was done by first administering the scale across two different contexts with a fixed university student sample. This procedure was repeated in a follow-up study in two different contexts with a fixed church sample. The AAT scale was used in conjunction with 3 scales measuring ideological conservatism/ideological belief, and two scales measuring ideological commitment. These were the Subtle Racism scale (Duckitt, 1991), the Conservatism scale (Durrheim & Foster, 1997) and the Right-Wing Authoritarian Scale (Duckitt, 1990). Scales measuring ideological commitment included the Religiosity Scale (Rohrbaugh & Jessor, 1975) and the Political Interest scale (an adaptation of the one used by Sidanius, 1988b).

Results have indicated that it is important to distinguish between the various dimensions of ideological conservatism as the shape and direction of the relationship with attitudinal ambiguity tolerance depend on these dimensions.

Although contextual value conflict has managed to better account for the vast variability in patterns of associations than any of the four other theories mentioned above, it too has its limitations. It was found that conflict caused by context is difficult to control and pre-define, and future studies need to address this shortfall by finding ways of determining more efficiently the level of contextual value conflict inherent in different situations. A recommendation for further research is that an attempt be made to develop an instrument for quantifying the level of contextual value conflict present in a particular situation. These shortfalls resulted in the major limitation of this study, i.e. the *post hoc* nature of explanations offered for the results. Thus, although contextual value conflict theory was not confirmed without contradiction, this thesis did uncover a degree of support for it. Due to the small sample size in both studies, but in particular that of the church study it is important, however, to treat the findings with caution.

In conclusion, although the support for contextual value conflict was not conclusive, some confirmation was found. What was most strongly evidenced though, was that tolerance of ambiguity cannot be seen as a stable, generalisable personality trait, but should rather be seen as *performance in context* that is fluid in nature.

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Masters of Arts (Clinical Psychology) at the University of the Natal, Pietermaritzburg. It has not been submitted before for any degree or examination at any other University.



J. C. ENGELBRECHT

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Chapter 1

INTRODUCTION

This chapter gives a brief background to the field of study, which serves as orientation to the research undertaken. The rationale and aims of the research are stated, followed by a brief explanation of the variations in context that was the unique feature and formed the central focus of the study. The chapter concludes with an outline of the rest of the thesis.

1.1 Brief background to the field of study

In the social psychological research field of cognition there is a long-standing debate about the nature of cognitive style. This debate centres on the question of whether cognitive style and its various constructs can be regarded as personality traits or not. These different constructs include tolerance of ambiguity, dogmatism, rigidity and cognitive or integrative complexity, to name but a few. If these were to be personality traits they would be stable and their influence would be a generalised phenomenon over time, context and content domain. If they were not personality traits, they would exhibit changes across different contexts and content domains. We mean here by context the particular circumstances prevailing that may influence an individual's response (in this study to a questionnaire). The circumstances here are predominantly social situations that vary in the degree of overt ideology inherent to them. This is a preliminary definition, which will be explicated further as the situations are described in detail. By content domain we mean differing areas such as the religious and political which will also be explicated in detail later on. Furthermore, a direct, isomorphic relationship between cognitive style constructs and ideological beliefs would imply that cognitive style and cognitive content are closely linked. Cognitive content in this instance therefore refers to ideological belief. This might, for instance, be seen if people with the same ideological beliefs (e.g. fascism) were found to use a similar cognitive style (e.g. intolerance of ambiguity). But this too is a contentious issue.

The debates on these issues have given birth to four major theories, each leading to a different

formulation of the nature of these constructs.

Three of these are essentially personality-based theories. They are the theory of authoritarianism (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), the theory of extremism (Rokeach, 1956, 1960) and the context theory (Sidanius, 1978a, 1978b, 1985; Sidanius & Lau, 1989). A fourth theory, the value pluralism theory (Tetlock, 1983b, 1984, 1986), seeks to move away from the personality-based position. It focuses on variability in the expressions of cognitive style constructs and claims that these constructs cannot be seen as stable personality traits. This latter theory contains two sub-sections; namely (1) value pluralism and (2) value conflict. These will be discussed separately, and the section on value conflict will form part of the central focus of this thesis.

Durrheim (1995, 1998) has critiqued all four theories. Durrheim found variability in expressions of tolerance/intolerance of ambiguity that was complex and that could not be adequately explained by any of these theories. He proposed extending the value conflict concept and developing a new theory to deal with the nature of cognitive style, and in particular tolerance of ambiguity. Durrheim argues that by combining Tetlock's (1993, 1994) ideas on value conflict and accountability with those of Billig (1985, 1988, 1996) on value conflict and audience effect the complexity of variation would be more effectively addressed, since it would emphasise the *contextual* nature of value conflict. The writer attempts to find more support for Durrheim's proposal in the studies that follow.

1.2 Rationale for this Research

Current South African society is undergoing a transformation of attitudes and underlying value systems. Under apartheid, value judgements based on race were sanctioned and reflected in many laws, whereas the new society is operating in a free market of values in which judgements about socio-economic realities are more complex than before.

Because of the complications of our particular history, transformation is slow and conflicted. This offers the challenge to investigate how the introduction of a different underlying value

system could challenge and ultimately impact on people's attitudes. The new society therefore offers an exciting laboratory in which to examine these theories and come to an understanding of the theoretical underpinning.

Durrheim's work was exploratory and his development of a new understanding tentative. The writer's research finds support for his proposal. Like Durrheim's studies, it incorporates some of Billig's (1996) ideas on value conflict to synthesise an emerging theory. It also includes Billig's (1985, 1988) ideas on audience effect. In accordance with developing theory the presence of varying levels of contextual value conflict in different situations (contexts) or content domains (i.e. religious and political domains) is examined, and their impact on the expression of tolerance/intolerance of ambiguity is investigated. Since this study extends the investigation of the issues raised in Durrheim's (1995) study, the same scales have been used so as to achieve comparability.

1.3 Aims of the Research

This study attempts to provide evidence of variability in cognitive style, thus refuting the notion of it being a stable, generalised personality trait. The cognitive style construct of tolerance/intolerance of ambiguity has been used as the main area of focus.

Whereas the main theme for Durrheim was to explore variability in ambiguity tolerance across content domains, the present study extends his work by exploring variability across context, thus undertaking one of his recommendations for further study. This specific angle renders the current study different from previous studies since context in this field of study has not been used as the central independent variable. Context is manipulated in order to determine whether or not variability in expressed levels of tolerance of ambiguity would manifest across different situations (contexts) with different characteristics, and in particular where different hypothesised levels of value conflict are present for subjects. If variability does occur, support against a personality-based view of cognitive style would be found.

Further support is sought in the second aim, which is to determine whether expressions of

tolerance of ambiguity vary across content domain. This is achieved by examining whether there are variations across different content domains, such as political and religious domains. For example, people might be intolerant of ambiguity as far as political content is concerned, while exhibiting tolerance of ambiguity in the religious sphere.

Another aim is to investigate the relationship between cognitive style and ideological belief, with the measure again being tolerance/intolerance of ambiguity. This is achieved by examining the relationship between tolerance of ambiguity and ideological conservatism. If a direct isomorphic relationship does exist, a single relationship between attitudinal conservatism and tolerance of ambiguity would be noticed in all content domains used in the two studies undertaken by the researcher. If no such a relationship exists, the studies would yield different associations across different content domains.

A last aim is to investigate ideological commitment as a mediating factor between cognitive style and cognitive content (ideological beliefs) to see if it does play a role across all content domains. If it does, ideological commitment would mediate in both the political and the religious domain. If not, it might mediate in either (or none) of the domains.

As mentioned above, the unique feature of the research undertaken in the study is the manipulation in context that was carried out. These variations in context will be discussed in more detail below.

1.4 Variations in Context

In order to achieve the above aims, two different studies with different sample groups were undertaken.

The first study, to be referred to as the "University study" took place at the *Potchefstroomse Universiteit vir Christelike Hoër Onderwys*. The second study, to be referred to as the "Church study" was done at two Dutch Reformed Church congregations in Johannesburg. One of the congregations, the *Nederduits Gereformeerde Kerk, Johannesburg Noord* is a predominantly

Afrikaans-speaking congregation, while the other, the *Andrew Murray Dutch Reformed Church* is predominantly English-speaking. These two congregations are in essence amalgamated, but separate services are held in the two different languages.

Both studies utilised two different contexts; one overtly "ideological" and the other supposedly more "neutral", in a repeated measure design. It was hypothesised that the different characteristics of the manipulated contexts would present subjects with different levels of value conflict, thus resulting in the expression of different levels of tolerance of ambiguity. Bible study groups in different residences were used as the ideological (formal) context in the university study, while one session of the Alpha course (discussed in Chapter 4) played this role in the church study. The "neutral" (informal) context was a university rag preparation situation in the university study and the home situation in the church study.

The assumption was that a context that is in line with the beliefs of subjects would pose less value conflict to the subject than would a context that would differ from or challenge their beliefs. In a context where their beliefs differed from others, or were opposed, higher levels of value conflict would be present, and this in turn would result in higher levels of tolerance of ambiguity.

The same sample was used in each context, but different subjects were used in the university and church study. Quantitative measures were used in both studies. Subjects had to complete a separate questionnaire in each of the different contexts. The only measurement instrument used in both context questionnaires was the Attitudinal Ambiguity Tolerance Scale (Durrheim, 1995). Other scales, such as the Right-Wing Authoritarianism Scale, the SA Conservatism Scale the Subtle Racism Scale, the Religiosity Scale and the Political Interest Scale were used in one of the questionnaires only. Analyses of this scale were done in conjunction with the other scales in order to test the expectations of the studies.

1.5 Outline of the Thesis

Chapter 1 provides a brief background to the study, its rationale as well as its aims and unique

feature, with specific emphasis on the variations in context in the two different studies that were undertaken.

Chapter 2 covers a review of the relevant literature. Here a more detailed background and history of the field is provided, and central concepts are explained in finer detail. The four major theories that have attempted to address issues in this field are then discussed: the theory of authoritarianism, extremism theory, context theory and value pluralism theory. A critique of the four theories follows, which in essence holds that none of these theories can adequately explain the level of variability in tolerance/intolerance of ambiguity found in Durrheim's study as well as in the two studies that were conducted by the researcher. Some aspects of Billig's (1985, 1988, 1996) work, notably his concepts of value conflict and audience effect, are then dealt with. After this discussion the researcher advances Durrheim's argument for the merging of Tetlock's concept of value conflict with that of Billig to provide a different theoretical understanding of the findings. This understanding focuses on the contextual nature of value conflict and its influence on ambiguity tolerance.

Chapter 3 deals with the methodology used in the university study. Main objectives and expectations are explained. A discussion of the sample, the two different contexts used for this sample group and the procedure that was applied then follow, and the different measures that were used in both the university and the church study are discussed. The chapter concludes with the results found in the university study, and brief preliminary explanations for these findings. The results yield such a variety of results across context and content domain that none of the four major theories can adequately explain the variation. The extended theory that has been proposed seems to explain the variability much better, but it too has its shortcomings.

Chapter 4 follows the same format, except that it now deals with the second study, the church study. The rationale for the second study is given. The measures used in this study are not discussed again since they are similar to those used in the university study and were dealt with in the previous chapter. The only measures that were not utilised in this study were those concerning the aspect of ideological commitment. Reasons for this are provided in the chapter. The findings in the church study yielded similar results to those found in the university study. Despite its limitations the proposed contextual value conflict theory provides the most

satisfactory explanation of the results.

Chapter 5 is a discussion of the findings of both the studies. The issue of context and the presence of different levels of contextual value conflict are discussed again. The results are dealt with in the light of the different research questions posed in the study. Firstly, whether tolerance of ambiguity is personality-based or not. The findings do not support a personality-based stance, as variability across both context and content domains was observed. Secondly, no isomorphic relationship between cognitive style and cognitive content was evidenced, as multiple associations between these were found. Thirdly, support for Durrheim's findings about variability across content domain was obtained.

A summary of the major findings of the thesis, and a section on its limitations as well as recommendations for future studies are also included in this chapter. The chapter concludes by attempting to indicate in which ways the research reported here has contributed to the social psychological research field of cognition, and in particular, what its contributions to an emerging theory of contextual value conflict may be.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

The first theme of this research is an investigation of whether tolerance of ambiguity is a predictable, stable personality trait. Much of the literature in this field has proposed that it is, and as such that it can be generalised and predicted, while other findings have challenged this notion.

Another theme is an investigation into the relationship between cognitive style and cognitive content in order to determine whether there is a direct, isomorphic relationship between these two aspects of cognitive functioning. This will be examined by investigating whether tolerance of ambiguity is linked to certain ideological beliefs and/or ideological commitment. Some previous work in this field has suggested causality between ideological beliefs and cognitive style, postulating that certain beliefs (e.g. fascism) are always characterised by certain cognitive styles (e.g. rigidity). However, other results have yielded contradictory findings.

The most important focus, however, explores whether different contextual conditions lead to variability in tolerance of ambiguity. The research in this field has not previously explored the consequences of manipulating the context. The latter is thus a unique feature of this study. The focus falls specifically on the level of contextual value conflict present in each different context, and how this affects the expression of tolerance of ambiguity across context.

2.2 Brief Background

For a long period, psychological theories of cognitive style have had as their major thrust an attempt to establish causality between cognitive style and ideological beliefs. In order to achieve this, the theories have been grounded mainly in personality theory. One reason for this thrust has been "to sustain moral/political arguments" (Durrheim, 1995, p.4, Durrheim, 1997). Linking

certain types of beliefs with a rigid cognitive style, and others with a flexible and complex cognitive style contains a value judgement about those beliefs, as it renders certain beliefs "irrational" (Adorno, *et al.*, 1950; Durrheim, 1995; Frenkel-Brunswik, 1949).

Research into cognitive style has its roots in the work of Jaensch, a Nazi psychologist, who hypothesised that elements of perception play an important role in personality (in Knutson, 1973). His research linked liberalism with an overly flexible cognitive style that was not tied to reality, and therefore was regarded as "irrational", while the "ideal Nazi personality...was characterized by precise and orderly perceptual abilities" (Ray, 1988, p. 303). Although Frenkel-Brunswik (1948b, 1949) was spurred on to disprove these findings, she took over virtually unchanged the underlying theory. The most significant change that she introduced was to propose a different, in fact totally opposite value judgement regarding "an irrational cognitive style". Her work led to the ensuing research by Adorno and colleagues (1950), who examined in detail the "authoritarian personality" (Eckhardt, 1991). They postulated that it was rigidity, rather than flexibility, that was "irrational" and linked this rigid cognitive style to the authoritarian personality style (Adorno *et al.*, 1950). The work of Frenkel-Brunswik as well as Adorno and colleagues attempted not only to understand anti-Semitism, but also to eradicate it (Adorno, *et al.*, 1950).

Ensuing research has used the landmark work of these authors as a central point of departure. Three major theories that were developed in reaction to the theory of authoritarianism are extremism theory, context theory and value pluralism theory.

2.3 Definitions of Key Concepts

2.3.1 General Constructs

A number of the assumptions and definitions of concepts in the ground breaking research by Adorno and colleagues (1950) have formed the basis of many subsequent studies, whether for or against the theory. However, the different interpretations and explanations that have been made in these studies resulted partially from different definitions and operational measures of concepts

such as intolerance of ambiguity (Sidanius, 1978b). Other reasons that have been given for these differences have included ideological bias, flawed methodology and external historical, cultural and social factors (Durrheim, 1995). These factors will be discussed in more detail under "Measures" in Chapter 3. Evidence exists that cognitive functioning does not constitute a unique trait, and that various, independent types may exist for different circumstances, interests and topics (Furnham, 1994; Kaplan, 1972; Rigby & Rump, 1982; Vannoy, 1965).

Despite the varying conceptual descriptions, methodologies and experimental procedures designed to measure cognitive style constructs, there seems to be enough overlap between them to argue that the multiple studies with different theoretical arguments and measures are trying to address the same phenomenon (Durrheim, 1997, 1998). The similarities between the different cognitive constructs used in the theories reviewed below will follow after the definitions of these concepts.

It is important to note that, for the purposes of this thesis, cognitive content refers to ideological beliefs, such as fascism, socialism, etc. Content domain, on the other hand, refers to the specific domains of religion and politics that were investigated in the Attitudinal Ambiguity Tolerance (AAT) Scale (Durrheim, 1995).

2.3.1.1 Personality

Although there is no single definition for the concept of personality, a few central assumptions underlie most views thereof. Firstly, it is generally accepted to refer to the organisation of a person's internal dispositions. Secondly, it refers to the stability or consistency of an individual's attributes over time. Thirdly, it assumes that behaviour is related to intrapsychic components which interact in predictable ways that change in interaction with the parameters of the external environment (Knutson, 1973).

According to Adorno and colleagues (1950) personality is "a more or less enduring organisation of forces within the individual... which help to determine responses in various situations" (p.5) and therefore leads to consistency in behaviour. Since their basic assumption stems from psychoanalytic personality theory, the basic forces of personality are "primarily primitive

emotional needs" which include "drives, wishes, emotional impulses" and which "are not responses but *readinesses for response*" (Adorno *et al.*, 1950, p. 5, italics in the original).

2.3.1.2 Cognition and Cognitive Functioning

Cognition refers to the set of activities used by a psychic system to process all the information which people are confronted with on a daily basis, and as such it has an adaptive and regulatory function (Leyens & Codol, 1988). For others cognition is "synonymous with opinion, belief and attitude" (Festinger in Leyens & Codol, 1988, p.91) and therefore refers more to content than structure. Cognitive functioning is defined as a vast construct encompassing the way in which information from the environment is structured, organised and processed by people (Tetlock, 1983b, 1984; Sidanius, 1978b).

2.3.1.3 Cognitive Style

Reber (1985) defines cognitive style as "the characteristic style or manner in which cognitive tasks are approached or handled". He states further that "several dimensions have been identified along which individuals' cognitive styles can be shown to differ" (p. 130).

There are two main theoretical conceptions of cognitive style prevalent in the social psychological literature. The first is personality-based and has informed the work of Frenkel-Brunswik and Adorno and colleagues. The second is cognitive-centred and has been used by Sidanius and Tetlock.

Frenkel-Brunswik's work is grounded in psychodynamic personality theory. She postulated that "prejudice and its wide range of perceptual and cognitive correlates were seen as surface manifestations of the ego defences...by which authoritarians screened out threatening emotional ambivalence" (Durrheim, 1995, p.62). These ego defences are mobilised by threatening cognitive contents and external situations and as such the concept allows for individual variability. Content and structure of cognition are closely intertwined in this view as it postulates that a direct causal link exists between these two aspects: if a person has this type of underlying ego-weakness, they will resort to a rigid cognitive style whenever they are confronted by threatening content.

Similarly, the ego weakness will predispose the authoritarian to a conservative political ideology. This predisposition is motivated psychodynamically because of the need to submit to a “supreme” authority. The personality-centred approach therefore stresses the connection between cognitive style and psychodynamic motivation. Furthermore, it also emphasises the emotive aspects of ambivalence (Durrheim, 1995).

The cognitive-centred approach considers cognitive style as "a formal, structural property of cognition which underlies all information-processing...and determines the way a person combines information perceived from the outside world, as well as internally generated information for adaptive purposes" (Schroder, *et al.*, 1967 in Durrheim, 1995, p. 67). Schroder and colleagues state that an adaptive orientation selects "certain kinds of information from the environment and...(acts) like a program or set of rules which combines these items of information in specific ways" (Schroder *et al.*, 1967, p. 4). This approach severs cognitive structure from cognitive content, as it proposes that this “structural property” would not necessarily change according to the content of the information that it processes. Furthermore, cognitive style is learnt through experience, training or conditioning and as such is seen as a "learned disposition" (Harvey & Schroder, 1963). The other difference from the personality-centred approach is that it rejects the notion of emotional ambivalence and severs cognitive style from any “psychodynamic motivational links” (Durrheim, 1995, p. 63). The separation here between content and style, seen in the fact that one structure is regarded as processing all content domains, imply that cognitive style can be considered a stable and generalised aspect of individual psychology. Any emotive element linked to cognitive style is therefore also discarded.

In short, then, personality-centred theorists attribute a rigid cognitive style to psychodynamic defences, while cognitive-centred theorists attribute it to structural opposition to changes in cognition (Durrheim, 1995).

The debate about whether cognitive style and cognitive content should be separated or not is an important one, as it has several implications for the work undertaken by the researcher. This aspect will be dealt with in more detail under the theory of Tetlock.

2.3.2 Cognitive Style Constructs

There are a number of constructs of cognitive style, such as tolerance/intolerance of ambiguity (Adorno, *et al.*, 1950), dogmatism (Rokeach, 1960), rigidity/flexibility (Sidanius & Ekehammar, 1977) and integrative complexity/simplicity (Tetlock, 1983a, 1983b, 1984) that are dealt with in the major theoretical perspectives relevant to this study. As seen in the polarised definitions (e.g. tolerance-intolerance of ambiguity and integrative complexity-simplicity), most of these constructs can manifest either of these extremes, the one more towards the flexible and the other more towards the rigid side of a continuum.

Rigid styles imply that people utilise a few fixed, one-dimensional categories when they interpret events, reject inconsistent information and do not have tolerance for alternative perspectives. In contrast, flexible cognitive styles allow a person to perceive situations in various, multidimensional ways. Individuals with such cognitive styles try to synthesise viewpoints that are integrative of several alternative values and facts (Rokeach, 1960; Sidanius, 1984, 1985; Tetlock, 1984; Tetlock, *et al.*, 1985). Brief definitions for some of these constructs will be discussed below, with a more detailed discussion of tolerance/ intolerance of ambiguity after the definitions of the other constructs. Specific issues pertaining to the measurement of tolerance of ambiguity will be discussed in Chapter 3.

2.3.2.1 Dogmatism

Rokeach (1960) examined this construct in detail. According to Knutson (1973) dogmatism is related to the structure, and not the content, of belief systems. Rokeach showed that people fall on a continuum ranging from closed-mindedness to open-mindedness. High levels of anxiety hinder closed-minded individuals from assimilating new information that is contrary to their own views or beliefs. Consequently they may have one of four reactions: (1) they may reject information outright if it conflicts with their beliefs; (2) they may perceptually distort the information so that they can accept it; (3) they may accept – but not integrate – the new information if it comes from a valued authority, or (4) if the change in beliefs required by information from a positive authority is too great, they may devalue the authority. Furthermore they are likely, without analysis, to accept and act on new information which appeals to them. In

contrast, open-minded individuals have a need to examine and analyse this kind of new information carefully before accepting it (Knutson, 1973).

2.3.2.2 Rigidity

The construct of rigidity has been defined by Sidanius (1978b) as "the (lack of) ease with which an individual can reorganise his (sic) cognitive structure and information-processing strategy in accordance with the demands of changing environmental situations" (p. 516). If cognitive style is rigid it implies that the person is not able to easily reorganise their information-processing strategies in order to meet the demands of changing situations or stimuli in their environment (Sidanius, 1978a). They utilise only a few generalised principles when perceiving and interpreting events or situations and find it difficult to tolerate other ideas. They also reject conflicting or inconsistent evidence (Tetlock, 1984). On the other hand, individuals who have a flexible cognitive style do not compartmentalise functions, and therefore relate to new ideas, etc. with ease (Kounin, 1941).

2.3.2.3 Integrative complexity

Integrative complexity, is defined as encompassing two structural cognitive variables namely that of differentiation and integration (Tetlock, 1983a). Differentiation is the number of diverse dimensions that a person considers when dealing with a problem (Tetlock, 1983a, 1984, 1989; Tetlock, *et al.*, 1985), while cognitive integration is reached when complex, conceptual associations among differentiated characteristics have been developed (Tetlock, 1983b, 1986). Differentiation is therefore required before integration can develop (Tetlock, 1984). People who are more integratively complex will use a combination of complex levels of both differentiation and integration as cognitive style strategies to process information presented to them. The opposite would be true for those people using cognitively simple strategies.

2.3.3 Similarities between Different Cognitive Constructs

Despite the differences between the personality-centred and the cognitive-centred approaches, they have many aspects in common. The first similarity is that bipolar cognitive constructs

(e.g. tolerance/intolerance of ambiguity, integrative complexity/simplicity) all cast a value judgement on the rigid styles (e.g. intolerance of ambiguity, cognitive simplicity) by rendering them "non-functional" and "irrational" (Durrheim, 1995). In this way they have similar evaluative connotations.

Secondly, all constructs on the rigid side of the continuum utilise a few broad, inflexible categories when processing information, whereas the flexible constructs use multiple, complex methods to assimilate information (see the definitions of the constructs).

Furthermore, all these constructs are concerned with investigating an ambiguous versus an unambiguous evaluation of social objects such as authorities and groups. Ambiguous or ambivalent evaluations would be seen in the more flexible styles (tolerance of ambiguity, integrative complexity) whereas an unambiguous evaluation would be characteristic of more rigid styles such as intolerance of ambiguity. Inherent in the ambiguous/unambiguous evaluation is also an emotive element.

These similarities have enabled researchers to compare these constructs and to find alternative explanations pertaining to aspects of these constructs.

Tolerance of ambiguity seems to be the one construct that brings together the most important elements from all the various constructs examined in this study, as it is bipolar in nature, it has a flexible and rigid manifestation, and is concerned with the ambiguous and unambiguous evaluation. It is also emotive in nature.

This construct, which is grounded in the personality-based orientation forms one of the main focal points of this research, and a more detailed account of it will be presented next. More information about its measurement and other aspects will follow in Chapter 3.

2.4 Tolerance/Intolerance of Ambiguity

Despite extensive research into the cognitive style construct of ambiguity tolerance, no clear

and unambiguous definition yet exists for it. Frenkel-Brunswik (1948a, 1948b, 1949), who was the first to introduce and define the concept, described it as an attitudinal variable that was social and evaluative in nature, manifest in the level of ambivalence towards values, groups and authorities. The ability to tolerate ambiguity enables an individual to identify and integrate the presence of both positive and negative qualities in one object or person, whereas intolerance of ambiguity would lead people to evaluate social objects in such a way that they either totally accept or totally reject the object.

Bochner states that "the concept of intolerance of ambiguity has been employed...either as a descriptive device, where personalities are classified as falling along a tolerance-intolerance continuum, or in a causal sense, where some observable facet of behaviour is deemed to be a function of the person's cognitive style with respect to ambiguity" (Bochner, 1965, p. 394).

Frenkel-Brunswik regarded the concept as a personality trait indicative of a broader, general type of ambiguity located in the person and as such penetrating every aspect of their functioning, including the social, behavioural and emotional spheres (Bochner, 1965; Durrheim & Foster, 1997). According to Durrheim (1995) "the construct was associated with personal and social identity, as well as political beliefs" (p. 64).

As will be discussed later in more detail, Frenkel-Brunswik's (1948b, 1949) work was rooted specifically in psychodynamic personality theory, and cognitive style was seen to manifest in reactions to threatening emotional content.

The theory of authoritarianism attempted to link intolerance of ambiguity to conservative, prejudiced political ideologies (Adorno, *et al.*, 1950; Frenkel-Brunswik, 1949). It is precisely because they regarded intolerance of ambiguity to be a personality trait that they could postulate such a link, since this personality trait would permeate all aspects of a person's functioning and would thus predispose them to certain types of ideologies.

Budner's definition of the concept describes intolerance of ambiguity as "the tendency to perceive ambiguous situations as sources of threat" while tolerance of ambiguity is seen as "the tendency to perceive ambiguous situations as desirable" (Budner, 1962, p. 29).

Despite support for the original view that regards it a personality trait (Allport, 1954; Kohn, 1974; Rokeach, 1960; Sidanius, 1978a; Trapnell, 1994), other theoretical findings have contradicted this stance (Durrheim, 1995, 1998; Scott *et al.*, 1979; Suedfield, 1971; Tetlock, 1993; Tetlock *et al.*, 1985).

Durrheim & Foster (1997) point out that these conflicting results indicate that intolerance of ambiguity is not a stable generalised personality trait. Ray (1988) postulates that intolerance of ambiguity is not a trait, but a situational response. Rigby & Rump (1982) state that research has shown that there is no such trait as intolerance of ambiguity, but rather that there are many different types of intolerance of ambiguity that emerge on different occasions and in different circumstances. In their research Sidanius & Ekehammar (1977) state that the multidimensional methods of analysis that are currently utilised have described various possible dimensions of cognition informing ideologies. This has led Sidanius (1978b) to conclude that “a singular, unitary trait of cognitive functioning underlying cognitive behaviour is quite difficult to establish, even within the same content domain” (p. 528). Other studies that support Sidanius on this matter include Furnham (1994), Kaplan (1972), Rigby & Rump (1982) and Vannoy (1965).

Scott and colleagues (1979) examined cross-content variability in cognitive style and found that object-ambivalence has very little cross-content stability. Durrheim (1995) took their research further and developed a measure for ambiguity tolerance that meets Rokeach’s “first requirement”, namely measuring the underlying structure, rather than the content of cognitive style. His research suggests that ambiguity tolerance is a multidimensional construct that is content specific, rather than a stable personality trait. He states that “...at best, tolerance of ambiguity is a diffuse correlate of only one dimension of personality” (Durrheim & Foster, 1997, p.742).

These conflicting findings are partly based on the various definitions, measures and experimental procedures resulting from misinterpretations of the original concept (Durrheim & Foster, 1997). These will be discussed in more detail in Chapter 3.

2.5 Theories

Four major theories are relevant to the questions raised in this study. Three of these theories are essentially personality-based positions. These are the theory of authoritarianism (Adorno, *et al.*, 1950), extremism theory (Rokeach, 1956, 1960) and context theory (Sidanius, 1978a, 1978b, 1985; Sidanius & Ekehammar, 1977; Sidanius & Lau, 1989). The fourth, the value pluralism theory of Tetlock (1983a, 1983b, 1984, 1986; Tetlock & Boettger, 1989) is not a "pure" personality-based theory but is an attempt to move away from this position. The two subsections of this theory are (1) value pluralism and (2) value conflict.

After the discussion of the above theories, an introduction to the work of Billig (1985, 1987, 1988, 1996) will follow. An argument is advanced for the expansion of the value conflict theory (by incorporating Billig's ideas) as a step towards a new theoretical understanding of the findings of this study. This proposal follows from the work of Durrheim (1995, 1998) in which tentative support for a new understanding was found. Durrheim suggested that Tetlock's concept of value conflict be combined with that of Billig's in order to arrive at a different interpretation of the findings.

2.5.1 The Theory of Authoritarianism

The work of Frenkel-Brunswik (1948b, 1949) laid the groundwork from which subsequent research in this field takes its departure. She was the first person in the social psychological field to explicitly postulate that characteristic means of perception and cognition are a reflection of a broader personality picture and to link this field with that of political psychology (Durrheim, 1997, 1998). She was also the first to define and introduce the cognitive style concept of intolerance of ambiguity. According to her, this construct is a personality trait reflecting a much broader intolerance of ambiguity that she linked to prejudiced (conservative) ideological beliefs (Frenkel-Brunswik, 1948b, 1949).

Using her work as a starting point, Adorno and colleagues (1950) investigated in much detail the authoritarian personality and aspects related to this personality style. The aim was to identify the relationship between cognitive style and ideological beliefs. This work is very significant and in

turn forms a central point of departure in ensuing research.

The research into the authoritarian personality was grounded in psychodynamic theory and postulated that the rigid kind of cognitive style associated with this personality type originates in early, authoritarian parent-child relationships in which ambivalence (i.e. emotional ambiguity) towards parental figures is taboo (Adorno, *et al.*, 1950; Frenkel-Brunswik, 1949). As such the ambivalence is experienced as risky behaviour, and becomes a threat which causes anxiety (in Sidanius, 1978a).

This type of upbringing results in ego-weakness as the person does not learn to integrate primitive id drives with the punitive superego and therefore represses any ambiguity they may experience. In turn, this ego weakness predisposes the authoritarian to a conservative political ideology that satisfies the psychological need to submit to an ultimate authority. Furthermore, it also results in "the displacement of a repressed antagonism...toward outgroups" such as minorities and deviants (Adorno, *et al.*, 1950, p 482).

Frenkel-Brunswik points out that, despite a "surface submission to authority...there is often, at the same time, an underlying resentment against authority" (Frenkel-Brunswik, 1948b, p. 300). The taboo against ambivalence towards parents, presents "an underlying emotional conflict between glorification and hostility in the attitude toward parents, sex and one's own social identity" (Frenkel-Brunswik, 1949, p.140).

This ego weakness is seen in the absolutist, value-laden patterns of thinking and beliefs about the world, which are characteristics of this personality type. Cognitive variables characteristic of such a cognitive style include, among others, rigidity, premature closure and intolerance of ambiguity, while typical beliefs associated with it are political and economic conservatism, ethnocentrism and anti-democratic views (Tetlock, 1983b). As such Adorno and colleagues theorised a fixed, linear relationship between cognitive style and ideological beliefs, and therefore between the structure and content of beliefs (Sidanius, 1978a). Both are therefore seen as manifestations of the same ego weakness. More specifically, the findings linked fascist beliefs directly to the rigid cognitive style construct of intolerance of ambiguity (Adorno, *et al.*, 1950).

The view of the ego-weakness predisposing people to conservative ideologies so that they can submit to a "supreme" authority is supported by another point of view on the role conservatism plays in people's lives. Wilson (1973) posits that conservatism serves the ego-defensive function of providing a sense of security, order and control to an individual's inner world, thereby reducing the threat that ambiguity poses to them. This in turn leads them to use simplistic, rigid patterns of behaviour. A conservative person would thus be less tolerant of ambiguity than a liberal one (Durrheim, 1998; Eckhardt, 1991; Frenkel-Brunswik, 1949).

According to Stone (1980) many of the research findings over the years have confirmed important relationships hypothesised by the theory of authoritarianism (Sidanius, 1985, 1986; Stone, 1980; Tetlock, 1983b). The interrelationship between conservative political ideological stances and authoritarianism has been one of the assumptions for which evidence has been found most consistently (in Sidanius, 1978b).

However, certain researchers have presented conflicting results (Knutson, 1973). Consequently an irrational cognitive style has been connected with a variety of ideological beliefs, such as conservatism (Adorno *et al.*, 1950), extremism (Rokeach, 1960) and moderatism (Sidanius, 1984, 1985, 1988a, 1988b). Various criticisms have been raised against the theory of authoritarianism. Central to these is the theory's insensitivity to and disregard for authoritarianism of the left (Sidanius, 1988a).

In reaction to the theory of authoritarianism Rokeach (1956, 1960) proposed an alternative stance which hypothesised that cognitive style is not directly linked to the content of ideological beliefs, but rather to the underlying dynamics of extremism (in Sidanius, 1978a). He also claimed that his scale, the Dogmatism scale, was independent of the "left-right" continuum.

2.5.2 Extremism or Ideologue Theory

Rokeach advanced a "general theory of authoritarianism which does not require that particular ideological contents are psychodynamically bound up with a characteristic cognitive style" (Durrheim, 1998, p.732). According to him there are more similarities than differences between the cognitive style of left wing and right-wing extremists. Moreover, the typical cognitive style

of the two poles of extremism have more in common with each other than with that of moderatism (Rokeach, 1956; Tetlock, 1983b). His hypothesis therefore postulates that the relationship between intolerance of ambiguity and the spectrum of political ideology will be curvilinear in nature. Extreme conservatives and liberals will be more authoritarian and more intolerant of ambiguity than moderate individuals (Sidanius, 1978a). Furthermore, they will be prone to think in simplistic, dichotomous and value-laden ways (Tetlock, 1984; Tetlock *et al.*, 1989). In contrast, the cognitive style of moderates will be more complex, flexible and open-minded (Sidanius & Ekehammar, 1977).

The reason for the similarity in cognitive styles of extremists can be found in the assumption that cognitive style is correlated with the underlying dynamics of extremism. This in turn implies that there is only an indirect relationship between the style of thinking and the actual content of the ideology that a person follows. Rokeach suggested that it is important to meet the "first requirement" of severing, both methodologically *and* theoretically, the content of beliefs from their structure. He states that there is a need to make "a sharp distinction in theory between the structure and content of ideological systems" (Rokeach, 1960, p. 13). In the field of empirical research it is essential "to formulate the formal and structural properties of belief systems apart from specific content...in such a way that they can be measured" (Rokeach, 1960, p. 14).

The measure that Rokeach designed to achieve this "first requirement" was the Dogmatism scale (1956, 1960). He maintained that this scale is independent of ideological content, and that it measures general authoritarianism. The scale places the underlying structure of the individual's belief system on a continuum ranging from open-mindedness to closed-mindedness (Knutson, 1973; Rokeach, 1960).

People on the open-minded end of the scale would analyse and examine new, conflicting information before assimilating or rejecting it, whereas closed-minded ones would either accept or reject it without analysis. Other strategies of close-mindedness would be to distort information perceptually so that it could become acceptable, especially if it has come from a positive authority with whom the person is overidentified (Knutson, 1973). It is precisely this overidentification with a supreme authority that informs a person's inclination to extremist ideologies. Ego-weakness is linked with the urge to submit to an absolute authority, which in

turn predisposes individuals to extremism in one or other form (Durrheim, 1995, 1998).

According to Rokeach, the psychological process of commitment is the central factor that underlies the leaning towards extremism. The reason for this is that the "ultimate source of truth" often inherent in extreme ideologies fulfils the "defences of an underlying dogmatic personality" (Durrheim, 1998, p. 736), and satisfies the need to commit oneself to an absolute authority or ideology. This implies a personality-based view of commitment. Strong religious commitment, for instance, has been associated with dogmatism in a number of studies (Kilpatrick, *et al.*, 1970).

Despite some evidence supportive of Rokeach's ideologue position (Eysenck, 1981; McClosky & Chong, 1985; Rokeach, 1956, 1960), the majority of investigations contradict this stance. Many of the findings actually support the theory of authoritarianism, as there is evidence that links dogmatism with conservatism (Sidanius, 1978a, 1978b; Stone, 1980; Tetlock, 1983b). Therefore, although efforts were made to devise an "ideology-free" psychological measure (Tetlock, 1983b), evidence pointed towards dogmatism being a "personality and attitudinal syndrome characteristic of right-wingers alone" (Stone, 1980, p. 14). However, for several reasons, Durrheim (1997) cautions that this statement may be premature, and that an uncritical acceptance thereof should be avoided.

Eysenck (1981) points out that the limited evidence for left-wing authoritarianism does not suggest that authoritarianism in liberals does not exist. "These findings...indicate only that in 20th-century Western democracies...certain cognitive stylistic traits occur more frequently among members of the public conventionally classified as being on the socio-political right" (in Tetlock, 1984, p. 366).

Some indications of a link between conservatism and dogmatism were also found in Rokeach's own research. He explains this by suggesting that the same drives that direct a person towards antihumanitarian (conservative) ideologies could also steer them towards dogmatism (Rokeach, 1956). This explanation has been criticised as it implies a causal link between personality, dogmatism and conservatism, thus opposing his "first requirement" of severing the content and structure of beliefs.

The third theory concerning the relationship between ideology and cognitive style is that of Sidanius. The context theory of Sidanius achieved Rokeach's "first requirement" both on a theoretical and a methodological level (Durrheim, 1997). However, it stands in complete opposition to the extremism theory, as it postulates rigidity and intolerance of ambiguity in moderates rather than in extremists.

2.5.3 Context theory

From the outset Sidanius (1978a, 1978b, 1984, 1985) makes it clear that his theory attempts to provide an alternative position to that of the authoritarianism theory and extremism theory.

One of the most important accomplishments of this theory is that it managed to sever cognitive content from cognitive style. This was attained through taking a completely apolitical perspective, one that was disinterested in critiquing any political ideology, but had as its main aim "to build a model of the relationship between cognition and belief" (Durrheim, 1997, p.637).

Here extremism is examined in a completely relative sense, giving it no specific, absolute content. Sidanius (1988a, 1988b) defines a certain position as extreme according to the relative extent to which it deviates from modal beliefs within a specific historical/cultural setting. This implies that an ideology can be regarded as liberal in one time/space frame and moderate or even conservative in another. An example would be the concept of the human rights agenda which, in an apartheid era was seen as liberal, and which has become mainstream in the new South Africa. Another example would be the acceptance of women's equality or gay rights.

This stance also acknowledges the existence of more than one socio-political dimension or radicalism-conservatism continuum. This is a distinct move away from the limitations of previous research regarding this issue (Sidanius 1978a). Eysenck (1975) states that examples of different types of socio-political dimensions include general attitudes (e.g. freedom of expression, international co-operation and racial prejudice) and economic concerns (e.g. expenditure of the national budget and social welfare).

Sidanius proposes a curvilinear relationship between certain cognitive constructs and the

radicalism-conservatism political dimension (Sidanius & Ekehammar, 1977; Sidanius & Lau, 1989). He states that non-dogmatism, flexibility, tolerance of ambiguity and complexity of thought, are facets to be found in extremists, rather than in moderates (Sidanius, 1978a, 1978b). The basis of the argument is the concept of "modal conformity and acquiescence response tendency" (Sidanius 1978a, p. 217). This "conformity" model proposes that individuals generally prefer to comply with the prevailing beliefs in their social environment in order to be accepted by their community (Sidanius 1988a, 1988b; Sidanius & Lau, 1989). The desire for acceptance reflects a rigid, dogmatic cognitive style, which is intolerant of ambiguity. This model differs from "dissonance" models, which suggest either that people seek to decrease tension between opposing ideological beliefs or that they expect a significant ideological authority to reduce attitudinal discrepancy. Sidanius (1984) posits that only through cognitive traits such as tolerance of ambiguity and complexity of thought, can a person defy the "modal pressure" and adopt non-conformative, extreme ideological beliefs. Attributes such as ego strength and self-confidence are also associated with individuals following an aberrant ideology (Sidanius, 1985). Extremists are seen to be intellectually "stronger" than their moderate counterparts, since an extreme point of view necessitates the intellectual ability to offer commanding, convincing arguments in defence of their position (Durrheim, 1995, 1997, 1998). The concept of commitment plays an important role in the adherence to extremist positions, as it is only through commitment and a heightened investment in the ideology that people can defend their positions successfully. Sidanius suggests that an increased level of experience and interest in a particular content domain will result in an increased level of commitment in that field and thus he subscribes to an experientially-based theory of commitment.

The instruments measuring cognitive functioning were a most effective part of this research. Sidanius employed "active, direct and multiple tests of cognitive processing, rather than relying solely on passive survey responses" (Ward, 1986, p. 142). These instruments researched specifically the processing of information and the structure of cognition, thus enabling Sidanius to separate content from structure. This separation removes the necessary relationship "between either the content and style of a particular belief, or the content and extremeness of the belief" (Durrheim, 1997, p. 638).

Since extremism is relative and any ideology can be rendered extreme in a given context, context

theory has no interest in critiquing a specific ideology. The distance of any belief from the norm depends on context. Context theory therefore focuses on individual rationality in either conforming to or deviating from the social norm.

Because Sidanius has separated cognitive style and content, he is able to predict that individuals may use the same cognitive style, e.g. intolerance of ambiguity, across different content domains, but only in conformity with the prevailing norms of a specific context. An example would be if, within a given context, it were the social norm for people, to be politically conservative and liberal in the religious domain.

Although Sidanius succeeded in distinguishing cognitive style from cognitive content, it was Tetlock's work that moved away from a personality-based theorising over political cognition.

2.5.4 Value Pluralism Theory

2.5.4.1 Introduction

Tetlock's (1983a, 1983b, 1984; Tetlock & Mansfield, 1985; Tetlock & Boettger, 1989) value pluralism theory postulates that two aspects influence political cognition: the specific beliefs prevalent at the time, and both the ideological system and the context within which cognition operates. Consequently he moves away from the notion of linking cognitive style with generalised personality traits and underlying psychodynamic forces (Durrheim, 1997, 1998). This enables him to acknowledge individual, intra-individual cross-content variability in cognitive style, and reflects his most important contribution to the field (Durrheim, 1995, 1998). Furthermore, this is congruent with his aim of developing a "value-neutral, value pluralism theory which simply attempts to explain a functional relationship between value conflict and cognitive coping responses" (Tetlock, 1994, p.524). His model is also a move away from presuming causality between cognitive style and specific ideologies.

Tetlock (1986) rejects the notion that the content and structure of cognition should be studied separately. According to him, incorrect conclusions can be reached when examining separately

two concepts that are so closely related. In this respect he refers specifically to a theoretical examination of the two aspects and proposes a contextualised examination of cognition (Durrheim, 1995).

It is important to understand the difference between Rokeach's and Tetlock's position on the separation between cognitive content and structure. Both Rokeach and Tetlock stress the importance of separating content from structure *methodologically*, i.e. they state that measuring instruments should be designed in such a way that they do not measure content and style simultaneously. For example, an item from the Budner scale (1960) requests a response to the statement "We should all have the same ideas". Although it claims to measure personality, the item is clearly loaded with political content and as such measures content and personality simultaneously. Both Rokeach and Tetlock regard this type of measurement as problematic and propose the use of an instrument that would make a clear distinction between these and that would measure either cognitive content or cognitive structure.

Rokeach differs from Tetlock as far as the *theoretical* interpretation of the findings is concerned. Rokeach states that cognitive style and cognitive content are theoretical independent and believes that it is the *underlying dynamics* of extremism that would inform the cognitive style, and not the specific content of an ideological belief. In this respect he proposes that both extreme conservatives and extreme liberals would use similar cognitive styles, whereas moderates would use a different kind of cognitive style. As such the content (liberal vs. conservative views) differ, but the cognitive style remains the same.

Tetlock, on the other hand, insists that cognitive style is not independent of content and the two should be examined together, as the content will inform the cognitive style that is used. Intra-individual variation is examined by looking at content together with style, since one type of cognitive style may be used to defend a stance on a certain issue, such as national defence while a different cognitive style may be used when arguing another issue, such as social welfare. Ideology-by-issue content also needs to be considered in conjunction with cognitive style. Cognitive strategies used in debates about the issues of tax and public health may differ from those used in discussions about tax and national defence.

Tetlock's theory views cognitive style in terms of integrative cognitive complexity, rather than in terms of tolerance of ambiguity. Although the two concepts are very similar in nature, his stance is more closely linked to the information-processing position of Schroder and colleagues (1967) than to the psychodynamic personality approach (Durrheim, 1998).

Tetlock draws on the work of two authors for developing the two different subsections of his theory, namely Rokeach's (1973, 1979) two-value analysis and Abelson's (1959) ideas on cognitive miserliness.

2.5.4.2 Value Pluralism

The first work that informs Tetlock's theory concerns the ideological system in which cognition takes place and forms the basis of value pluralism. It is the two-value analysis that Rokeach (1973, 1979) employs when examining political ideology and which attempts to explain the link between cognitive style and political belief.

According to Rokeach, all the major 20th century ideologies differ in the importance they assign to the core values of social equality and individual freedom. These two values are frequently in conflict with each other as they often require opposing actions (Tetlock, 1984). For instance, in order to improve the social welfare (to achieve greater social equality) personal tax may have to be raised (which tampers with individual freedom).

Monistic or single-value ideologies have a clear prioritisation of the different values. In contrast, pluralistic or multi-value ideologies acknowledge the conflict between different values (Rokeach, 1973, 1979). Rokeach's thinking suggests that contemporary extremist ideologies tend to be monistic, while moderate ideologies are pluralistic. Socialism, for instance, is pluralistic as it values both freedom and equality. Communism, on the other hand, values equality above freedom and is therefore monistic (Tetlock, 1993). The value conflict that is activated in pluralistic ideologies will be discussed in more detail under "Value Conflict".

Tetlock has refined the work of Rokeach by attempting to develop a "more sophisticated taxonomy of political ideologies than the simple left-right continuum" (Tetlock, 1983b, p.123).

Predicted by this theory is that individuals use cognitive strategies according to the monistic or pluralistic nature of their ideologies (Tetlock, 1984). According to Tetlock individual thinking is therefore constrained by the person's ideological orientation. Pluralistic ideologies, for instance, entail the use of integrative complexity. Tetlock hypothesises a curvilinear relationship between cognitive style and the ideologies of the political left-right continuum. He is, however, not consistent about the prediction of this relationship, as will be seen below.

Research has suggested that the point of maximum integrative complexity is somewhat left-of-centre on the liberalism-conservatism political continuum, as "this seems to be the point of maximum value pluralism on a whole range of issues" (Tetlock, *et al.*, 1985, p. 1237). He proposes that these political belief systems are multidimensional in nature since they are ambivalent about the absolute and relative importance they attach to different values within the ideology. Furthermore, within one ideology intra-individual variations on different issues may also occur. It is therefore not possible to link integrative complexity with one particular ideology, as ideology-by-issue interactions affect the level of complexity or simplicity used by an individual at a particular time. These matters will be dealt with again under "Value Conflict".

Although value conflict is related to the monistic or pluralistic nature of political ideologies, it is also related to many other situational variables that are independent of political ideology (Tetlock, 1993). Tetlock's assumptions about individual variability are drawn from the field of social learning theory, which focuses on the influence of social processes and social dynamics on cognitive style. Consequently it moves away from the link between cognitive style and ideology and instead examines contextual influences, such as accountability.

The discussion that follows will first examine the value conflict related to pluralistic ideologies and will then concentrate on accountability.

2.5.4.3 Value Conflict

Abelson's (1959) ideas on cognitive miserliness are used as a basis for value conflict theory. Value conflict theory does not aim to explain the link between cognitive style and political ideology, but rather concentrates on situational variations of cognitive style which is not related

to any particular political ideology such as conservatism or liberalism.

Abelson proposed that people are "cognitive misers" who avoid mental exertion and unnecessary cognitive work wherever possible. They will therefore opt to use simple or least-effort modes when trying to resolve cognitive inconsistency or conflict. When two conflicting values are of unequal strength it is easy to resort to simple cognitive strategies when addressing the issue. However, "when the competing values are approximately equally ranked and ranked very highly in the individual's value system", cognitive complexity is activated (Tetlock, 1986, p. 821).

Tetlock extends the work of Abelson by acknowledging the important influence of the context in which cognitive strategies are utilised. He proposes that both value pluralism and in particular value conflict activate complex cognitive strategies. "How people think depends in part on why people think" (Tetlock, *et al.*, 1989, p. 640).

Tetlock's model proposes that tension between the two terminal values of freedom and equality is likely to lead to more integratively complex arguments. Both the regularity with which a person encounters cognitive inconsistency and the complexity of the cognitive strategy used in dealing with this inconsistency will be determined by the degree of value pluralism in the given ideology (Tetlock, 1984). When the conflicting core values are not of equal importance, as in single-value or monistic ideologies, it is viable to resort to simple, "black-white" strategies by bolstering the prominence of the one and denying the importance of the other value. However, in the case of pluralistic or multi-value ideologies, when core values are approximately matched in importance, people have to employ more complex, multi-faceted strategies, such as differentiation, integration or transcendence to reduce the conflict between the values (Tetlock, 1986). Cognitive complexity is therefore not a function of an individual's unique psychological qualities, but of the nature of the ideology that the person supports (Durrheim, 1995).

Tetlock, however, cautions against the presumption that certain ideological groups would necessarily always be more integratively complex than other groups regardless of the topic at hand. He suggests "at the most abstract level...people are likely to think...in complex ways to the degree that two or more approximately equally important values imply contradictory courses of action" (Tetlock, 1984, p. 373).

The influence of the ideological system and broader context within which cognitive style operates is an important factor to consider, because people do not operate in isolation from their environment and the ideological system surrounding them (Tetlock, 1983a). "Cognitive tendencies" interact with both interpersonal and environmental/social aspects to influence the way in which people make decisions and determine their position on issues (Tetlock, *et al.*, 1989).

One such contextual factor that may influence people to use different cognitive strategies according to the level of value conflict that it activates, is accountability. Accountability as used in Tetlock's studies, refers to the need to justify one's views to others, particularly with regards to controversial social issues (Tetlock, 1983a). In his research into accountability Tetlock (1983a; Tetlock *et al.*, 1989) found that, depending on the situation, people use different cognitive strategies when they have to justify their opinions on controversial topics. Reasons for using the different strategies range from cognitive miserliness to the protection of one's self-image or social image (impression management). These aims could be achieved by using a whole range of varying levels of integrative complexity.

When examining in more detail these changes in level of complexity, there seem to be three important strategies that are used either on their own or in combination with each other. The first option is to express views that they are confident will gain the approval of the audience. For instance, when accountable to someone with known, well-defined liberal or conservative views, subjects tend to rely on the "lazy" choice of acceptability heuristics. The latter presupposes that the audience do not have advance knowledge of the subject's views and entails strategic shifting of opinions to match that of the audience (Tetlock, 1983a). This is a cognitively simple strategy. However, when the views of an audience are not known, subjects often resort to pre-emptive self-criticism by anticipating "a variety of potential...objections" (Tetlock, 1993, p. 399). The strategies used to achieve this are more complex than those utilised by the cognitive miser, as the individual must contemplate views that oppose or challenge their stances. Also, when constrained by pre-commitment, subjects tend to use the strategy of retrospective rationality or defensive bolstering, where they generate thoughts that justify their position to the audience concerned (Tetlock, *et al.*, 1989). Again, in attempting to achieve this, people may resort to more complex cognitive strategies than the cognitive miser, as they may have to develop convincing

arguments that could challenge the use of a simplistic or rigid cognitive style.

Tetlock's work on cognitive processing under uncertainty and value conflict is of particular importance for the present study. Both this and the work of Billig are used to move towards a new understanding of complex research findings in the field of cognitive style.

The reason for such a move is found in the work of Durrheim (1995, 1998; Durrheim & Foster, 1997). For a better understanding of the shortcomings of preceding theories, Durrheim's findings are mentioned very briefly, followed by a discussion of why none of the four earlier theories could give a satisfactory explanation of the results.

2.6 Critique of the four theories

The results of Durrheim's studies (1995, 1998; Durrheim & Foster, 1997) yielded multiple individual patterns of cross-cultural and cross-content variability. No isomorphic or invariant relationship was found between cognitive style and ideological belief across different content domains (i.e. religion and politics). The content domain appeared to influence both the strength and direction of the relationship between cognitive style and ideological beliefs. His findings reiterate that cognitive style and in particular tolerance of ambiguity should not be seen as a stable, generalised personality trait. Furthermore, cross-cultural variability was also apparent in the results, suggesting that contextual and social factors mediate the relationship between cognitive content and structure. Another important finding was that of a variable relationship between ideological commitment and ideological beliefs across content domain. None of the four theories reviewed above was able to adequately explain the complex pattern of variability in his findings.

Cross-content variability in ambiguity tolerance was evident in the fact that subjects had made a clear distinction between and evaluated differently the various content or authority domains (i.e. familial, religious and political). Factor analysis suggested that subjects expressed different levels of tolerance of ambiguity across content domain.

Ideological commitment was not found to be associated consistently with ideological orientation across different content domains. Whereas a relationship was evident between commitment and the political domain, such a relationship did not exist in the religious content domain.

The first objection to the previous theories is the view of cognitive style as a stable, generalised personality trait. This assumes that individual expressions are dependent on factors located purely within the individual and as such the influence of context would be disregarded or dismissed.

Authoritarianism, extremism, and context theory all support this view and propose that cognitive style has a single dimension that manifest in an invariant relationship across all content domains. None of these can therefore explain the variability across content domain that was observed in Durrheim's studies. Furthermore, both authoritarianism and extremism propose a close link between specific ideologies and cognitive style. This link was not evidenced in Durrheim's findings.

Tetlock is not consistent about the nature of the relationship between cognitive style and cognitive content. He alternates between regarding cognitive style as a personality trait and on the contrary proposing cross-content variability in cognitive complexity. In terms of the value pluralism section of his theory, he cannot offer a valid explanation for the varying relationships. However, he is better able to explain this in terms of conflict between different core values, but this has limited explanatory power, because the authorities in Durrheim's AAT scale do not necessarily evoke such conflict (Durrheim, 1995). His later work, specifically that on accountability, is still better able to explain the results. But on its own it remains an incomplete explanation.

A second criticism is linked to the first and deals with the direction of the relationship between cognitive style and cognitive content as predicted by each theory. The theory of authoritarianism proposes a direct negative relationship between tolerance of ambiguity and ideological conservatism, where very conservative subjects would be more intolerant of ambiguity than liberal subjects. The theory of extremism hypothesises a curvilinear, n-shaped relationship

between ambiguity tolerance and ideological radicalism-conservatism, with extremists being less tolerant of ambiguity than moderates. Context theory anticipates a curvi-linear, v-shaped relationship between tolerance of ambiguity and radicalism-conservatism, with extremists on both ends of the spectrum displaying greater tolerance of ambiguity, political sophistication and ideological interest and commitment (Durrheim, 1995).

Tetlock vacillates between regarding cognitive style as personality trait and proposing cross-content variability in cognitive complexity. The former is illustrated by his postulate that individuals have a characteristic cognitive style as determined by their monistic/pluralistic ideological orientation (value pluralism). Value pluralism predicts an n-shaped curvilinear relationship between integrative complexity and radicalism-conservatism. The latter position is reflected in his proposition that the relationship between cognitive style and cognitive content is dependent on the particular contents under cognition (value conflict). Value conflict, on the other hand, anticipates a variable relationship between cognitive style and ideological beliefs over issues where different values are drawn into conflict (Durrheim, 1995). None of these predictions, including those of value conflict, were consistently compatible with the findings in the studies done by Durrheim.

A third criticism concerns the underlying reasons for the existence of a relationship between cognitive style and cognitive content. Authoritarianism, extremism and context theory provide psychodynamic explanations for this relationship. While Adorno and colleagues attribute it to defences emanating from a deep-seated emotional ambivalence, Rokeach proposes that it stems more from an ideological commitment satisfying a need for submission to an ultimate authority.

Sidanius also emphasises the issue of ideological commitment, but differently so than Rokeach. He postulates that extremists on both ends of the continuum would have to be more tolerant of ambiguity to have chosen non-conformist stances. They would also need to offer more sophisticated arguments in defence of their own views, and consequently would exhibit more ideological commitment than would moderates. As such he proposes an experientially based theory rather than a psychodynamic account of commitment (Durrheim, 1995).

A psychodynamically based emotional ambivalence would manifest in an invariant relationship between cognitive content and style, a phenomenon that was not observed in Durrheim's studies. Furthermore, both Rokeach and Sidanius are found to be incorrect in their assumption that ideological commitment would mediate this relationship across all content domains. This was illustrated in the fact that such a relationship was found only in the political, and not in the religious domain (Durrheim, 1995, 1998).

Tetlock differs from all three of the above as he focuses more on contextual factors influencing cognitive style. Even when he treats cognitive style as a personality trait, he does not offer a psychodynamic explanation. Furthermore, he does not suggest that ideological commitment would mediate the relationship between cognitive style and ideological belief. In this sense he has a more convincing explanation, but his suggestion of cognitive style as personality trait remains problematic (Durrheim, 1995).

The separation of cognitive content from cognitive style is another area of criticism. Authoritarianism examines content and style together, both on a theoretical and a methodological level. Since such methodology leads to confusion about which construct is measured it leads to problematic interpretations. Both extremism and context theory sever the two methodologically and theoretically, whereas Tetlock's theory proposes that they be separated methodologically but not theoretically. The individual cross-content variability that was found in Durrheim's work suggests that the content and structure of cognition are closely linked and as such should not be severed theoretically. This is in line only with Tetlock's stance regarding the relationship between these two components of cognition (Durrheim, 1995).

From the above discussion it is clear that all theories, to a greater or lesser extent were unable to interpret the findings effectively.

In the quest for a more adequate theoretical understanding, Durrheim turned to some of the ideas of Billig (1985, 1988), and suggested that these ideas be merged with Tetlock's ideas on value conflict. On the basis of this suggestion he proposed a different interpretation.

Durrheim (1995, 1998; Durrheim & Foster, 1997) postulates that the variable relationship

between cognitive style and ideological content stems from contextual and social factors resulting in certain content domains having differential meanings for subjects in the ideologically-charged context of the study. Not only did the various content domains present different levels of value conflict to the various cultural groups represented in the studies; intra-individual variations also occurred. These differential meanings and levels of value conflict impacted on the style that subject had used to evaluate the different domains of authority.

For a better understanding of Durrheim's proposal the relevant aspects of Billig's work will be discussed below, after which the way towards a new understanding will follow.

2.7 Billig (on Audience Effect and Value Conflict)

The rhetorical approach as seen, for instance, in the dialogical theory of Billig (1985, 1996; Billig, *et al.*, 1988) emphasises the importance of the context in which cognition takes place, and in particular the social relations that function in a given context. Cognitive style is seen to emerge from these contextual interactions and as such the approach focuses on the social nature of cognition. As such it shifts the focus away from locating cognitive style within the individual as part of personality and towards social and contextual factors impacting on the person's use of a particular cognitive style.

Within this broader rhetorical approach, Billig's dialogical theory proposes a move from a monologic to a dialogic approach where the emphasis falls on the social context of culture. He argues that attitudes are essentially controversial in nature. They are either shared - or not shared - by others who, in the case of the latter, present an oppositional stance on the matter in question. In order to determine their own position on these controversies, people need to use their argumentative skills that form an integral part of thinking (Billig, 1987, 1988). In their considerations of these matters they argue explicitly or implicitly, with other people or through silent self-argumentation (Billig, 1996).

Apart from an individual personality people also have social identities that are inextricably bound with the context in which they operate at the time. Arguing one's position is determined

to a large extent by the audience of that context. Attitudes can therefore not be seen solely as singular statements reflecting individual personality traits. On the contrary, they are rhetorically complex (Billig, 1985, 1987, 1988).

Billig (1996) states that if orators want to persuade an audience they need to have an understanding of how their audience thinks and what its opinions (prejudices) are. Within this context they should then “try to slide their controversial views into categories which are familiar and well-valued by the audience” (p. 224). By highlighting common ground between them and their audience they stress communal links with the audience. This idea could also be broadened to the everyday general social context within which people operate and in which they air their views.

Billig (1996) agrees with Cialdini and colleagues (1976) when they state that people may choose to express their views in an uncompromising, one-sided and unqualified way when they are confronted by opposing views on matters that are very important to them and about which they feel strongly. In accordance with Tetlock’s views, Cialdini *et al.* (1973) focus on accountability and postulate that each audience has special interests to which the individual needs to adapt. They also agree that individuals have a situational identity that is fluid and changing across context. Billig endorses these ideas.

This concept of social, contextual identity can further aid the understanding of individual behaviour (and cognition) in different situations, as changes in rhetorical context and audience will generate shifts in the expression of opinions. It is therefore possible that certain arguments may be used with one audience and an entirely different, contradictory set of arguments with another audience (Billig, *et al.*, 1988). An example would be a middle-aged parent who has a radical argument with their parents, and later on has a conservative discussion with their own children. Another example would be where Mugabe encourages war veterans to take over the farms of white farmers in a pre-election bid, and then promises the commonwealth that elections will be conducted within the rule of law.

People may therefore at times seem to contradict themselves or to alter their positions entirely. Not only that, their behaviour and attitudes could also contradict each other at times. An

example here would be a racist who deals with a specific black person in a tolerant manner.

A rhetorical approach investigates the circumstances in which one set of arguments is more likely to be activated than another and as such focuses on issues relating to the fluid nature of thought (Billig, 1987, 1988, 1996; Billig *et al.*, 1988).

Changes in the rhetorical context will result in different expressions of attitudes, and will alter according to the changes in the context of controversy. Social norms, for instance, which is a very important contextual factor, vary from context to context. Billig, however, does not regard them only as contextual or external to an individual (1985, 1988). Instead, these social norms need to be internalised by the individual to form part of the individual's belief system otherwise they would not operate as social pressures (Billig, 1996). In this way "cognitive/ideological contents and situation are, at once, both internal and external to the individual"(Durrheim, 1995, p. 93).

Central to Billig's work is the concept of value or cognitive conflict that influences the use of a particular cognitive style. According to him "values comprise a small number of core ideas or cognitions present in every society about desirable end-states" (Billig, 1996, p. 239). Despite a general understanding about common values these values can also be the source of controversy. The main potential for controversy emanates from two sources. Billig (1996) states that "there may be disputes about the interpretation of a value or there may be controversy about which value is appropriate to the case in hand" (p. 240). This multiplicity of values and the conflict between them underlie the dilemmas that people face in the practicality of daily living when they are confronted with making choices.

As such, value conflict is rooted in context and different contexts can activate different levels of value conflict with regards to different content domains. For instance, the values of a particular group may influence an individual's expression of tolerance (or intolerance) of ambiguity. People may have to select "counter-themes" of common sense (or socially shared beliefs) in order to present an idea in a specific way (Billig, *et al.*, 1988). A conservative person in a liberal context may express their views more ambiguously than in the presence of other conservatives and use "contrary themes" in their arguments. This may result in them using

more flexible cognitive strategies manifesting in higher levels of expressed tolerance of ambiguity. This complex interaction of different principles causes the value conflict experienced by an individual.

This idea of value conflict requiring the utilisation of more complex and flexible cognitive strategies and inducing higher levels of tolerance of ambiguity is crucial for a more comprehensive understanding of cross content and cross context variability in cognitive style. Billig's views also suggest that a relationship between cognitive content and style does exist, as content will influence the style that is used at the time.

The context of cognitive style in which individuals give their opinion either in the form of persuasion or criticism is innately evaluative and emotive. This is especially true when an individual is expressing opinions that deviate from the norms of the given (cultural) context. Not only do social norms "locate one in a culture" they also place restraints on "the organisation of the self" (Durrheim, 1995, p. 96).

Cognitive style associated with ambivalent and unambivalent categorisations is also seen by Billig as evaluative and emotive in nature. However, he differs from Frenkel-Brunswik who holds that the evaluative and emotive elements stem from underlying psychodynamic processes (Durrheim, 1995). Instead he proposes that they emanate from the social interactions, norms and arguments specific to the context at hand (Billig, 1988, 1996).

In the above discussion it has become clear that there are many commonalities between the ideas of Tetlock and those of Billig. The argument for the proposed merger between these will begin with a brief statement about the congruences and differences between them, followed by a proposal for their synthesis.

2.8 Towards a new understanding: Contextual Value Conflict

According to Durrheim (1995), the rhetorical approach may provide "an appropriate structural and relational model for studying the dynamic features of cognition" (p.119). It facilitates the

conception of structure as being in relation to societal needs.

For a more comprehensive theoretical framework for understanding his results, Durrheim suggested that Tetlock's ideas should be combined with those of Billig, as this combination may fill the void that currently exists.

Billig agrees with Tetlock on the concept of value conflict, but proposes a broader approach to value conflict than that of Tetlock. Rather than focusing on the monistic/pluralistic nature of ideologies that activate conflict between different values, he embraces a wider contextual influence in which the social interactions between people within a given context plays an important facilitating role.

Durrheim emphasises the importance of social norms and values inherent in a particular context. The moment individuals hold ideas that are non-normative or contrary to the norms, they experience higher levels of value conflict, which in turn lead to using more complex and flexible cognitive style strategies (Durrheim, 1995, 1998).

Tetlock's more recent work on accountability has more in common with Billig's ideas, as it moves away from implying that the nature of the ideology (monistic/pluralistic) that a person follows will determine their cognitive style strategies. However, it still recognises that a monistic/pluralistic context can influence a person's use of cognitive style. For instance, if an individual holds monistic views in a pluralistic context they will experience higher levels of value conflict and therefore will need to be more tolerant of ambiguity in thinking about the relevant issues than they would be in a monistic context. As such it also gives attention to the actual impact that institutions and ideologies have on cognitive style and cognitive content.

Billig's ideas on audience effect are, to a certain extent similar to those of Tetlock's on accountability, as cognitive style is influenced by the views of others in the context at hand. However, Billig does not entertain the idea of people being cognitive misers, and in this regard he differs from Tetlock.

Durrheim suggests that by combining the ideas of these two authors tolerance of ambiguity

becomes a cognitive manifestation of contextual value conflict. Tolerance of ambiguity can therefore be seen as *performance in context* rather than a reflection of an innate personality trait. If, as mentioned above, others whose views they endorse (e.g. Cialdini, *et al.*, 1976), are considered, the complexity of social and psychological reality is acknowledged. By extending the concept of value conflict to that of *contextual* value conflict the importance of social and contextual aspects impacting on individuals is also emphasised. This stance also rejects one-dimensional understandings of the behaviour or cognitions of people in a given context.

How this may manifest in a practical sense can be illustrated by looking to an historical moment in time. A very good example of an ideologically monistic context would be that of the Nuremberg rally where crowds of Nazi supporters were listening to the propagandistic speeches delivered by Hitler. In this context, card-carrying members who accepted his views would not have experienced value conflict, as their views would have been congruent with those that Hitler was expressing. Because their views were not challenged but "confirmed" they would have been intolerant of ambiguity in that context. However, other people in the audience, who were not accepting of Hitler's values and who had serious misgivings about these would have experienced a great deal of value/cognitive conflict. Their views would have been challenged by the content of his speeches, as well as by the support from the crowds. This would have activated high levels of value conflict for them, and in order to deal with this effectively, they would have resorted to using more flexible and complex cognitive styles by being more tolerant of ambiguity.

Not only does this example illustrate Tetlock's original ideas of value conflict stemming from monistic ideologies. It also illustrates the value conflict induced by the situation or context and the norms or values prevalent in the given context. Even if the context did not provide the opportunity to argue the matters hand there and then, the value conflict experienced there may have evoked silent inner self-argumentation.

One of the major difficulties with accountability is that Tetlock would like to quantify it. At present there is no way of determining this and the question of how to do so remains unanswered at this point in time. A further question is how to quantify the level of contextual

value conflict present in a particular context. The inability to do this currently leads to post-hoc explanations, which is the most serious shortfall of this study. This aspect will be discussed in more detail in chapter 5.

It was anticipated that the findings in the present study might follow the trend seen in Durrheim's studies. The new understanding would be used to explain the findings of the present study. As a conclusion to this chapter the expectations for the studies undertaken by the researcher are briefly mentioned.

2.9 Expectations for the current study

If cognitive style is a personality trait it could be generalised to all content domains and would show stability across context and content. However, if Tetlock and Billig were correct in their assumption that it is not, both content and context would influence the use of a particular cognitive style, which in turn would result in variability in cognitive style.

It was anticipated that both cross-content and cross-context variability in tolerance of ambiguity would occur. It was thus expected that no single relation between cognitive content and style would exist once content domain was considered. In the two studies undertaken by the researcher cross-context variability could be examined closely, as the context was specifically manipulated in order to determine more accurately its influence on cognitive style. Cross-cultural variability was also anticipated. However, this could not be examined, as - contrary to expectations - both sample groups turned out to be homogenous.

It was expected that the contextual nature of value conflict would tend to suggest that in situations where there is high value conflict between contextual norms and personal beliefs, higher degrees of tolerance of ambiguity would be expressed. In contrast, where personal and contextual values are the same, subjects would be more intolerant of ambiguity (i.e. have either just positive or just negative evaluations of the authorities in question).

The expectations for the university study will be discussed in more detail in Chapter 3 and those of the church study will follow in Chapter 4.

Chapter 3

STUDY 1: THE UNIVERSITY STUDY

3.1 Objectives and Expectations

In general the study was designed mainly to investigate the stability versus the variability of tolerance of ambiguity across different contexts in an attempt to critique the notion of cognitive style being a personality trait.

Another objective was to examine the stability versus the variability of tolerance of ambiguity across content domain. The proposition for this study is one of support for variability, which would strengthen the opposition to a personality-based view of cognitive style.

This study also examined the existence of a relationship between tolerance of ambiguity and ideological belief and the nature of such a relationship. This was done in order to oppose the contention that a direct, isomorphic relationship between these two exists. The alternative proposition is that a variable relationship is evident, especially once content domain is considered.

Another question was whether ideological commitment plays a consistent mediating role between tolerance of ambiguity and ideological belief across all content domains. Support was sought for the idea that ideological commitment plays a role only in certain content domains.

The first expectation is that no single relation between cognitive style and cognitive content would be found across context. It is anticipated that the same individuals will express different levels of ambiguity tolerance in two different contexts, therefore supporting the view that this construct can no longer be seen as a stable personality trait. The anticipated variability is predicted on the basis that the different contexts would present subjects with different levels of value conflict, which in turn would influence their expression of tolerance/intolerance of ambiguity. The higher the hypothesised value conflict between personal and contextual values

in the particular situation, the higher would be the degree of tolerance of ambiguity expressed. The lower the value conflict between personal beliefs and contextual norms in a specific context, the lower would be the degree of tolerance of ambiguity evident.

Another expectation is that no single relation between cognitive content and style would exist once content domain is considered. It is thus anticipated that expressions of tolerance of ambiguity would vary across content domain. This is again predicted on the basis that different content domains might hold different levels of value conflict for subjects, hence differences in expressed levels of tolerance/intolerance of ambiguity. Tolerance of ambiguity in the political domain, therefore, would differ from tolerance of ambiguity in the religious domain according to the level of value conflict presented by the particular content domain. Higher levels of value conflict in a particular content domain would manifest once again in higher degrees of tolerance of ambiguity, but high levels of value conflict in one content domain would not necessarily be associated with high levels of value conflict in another domain.

A further expectation is that no single correlation would be evident between ideological conservatism, ideological commitment and tolerance of ambiguity once content domain is considered. It is foreseen that the mediating role of ideological commitment might be evident in one content domain, but not necessarily in another.

It is predicted that all these variations that may occur would be related to the level of value conflict that subjects would experience in a given situation. It is assumed that the two different situations or contexts in which data was collected (i.e. that of rag and that of Bible study) would present different levels of value conflict to different subjects. If the norms of a given situation confirmed their beliefs in a particular content domain, they would experience less conflict and therefore would be less tolerant of ambiguity. However, if the situation challenged their beliefs regarding a particular content domain, they would experience more value conflict and therefore express more tolerance of ambiguity towards that content domain. For instance, if people were politically liberal and found themselves in a politically conservative context, they would experience higher value conflict and therefore more tolerance of ambiguity in that situation than would a politically conservative person in the same context. It is also possible that the same person who is politically liberal may be

conservative as far as religion is concerned. Therefore, not only are inter-individual differences predicted; intra-individual differences are also foreseen.

The nature of the expected differences between the two contexts will be discussed in more detail under "Context".

3.2 Method

3.2.1 Sample

The sample was selected from first year residential students who were registered at the *Potchefstroomse Universiteit vir Christelike Hoër Onderwys* during 1998. The same sample had to complete slightly different questionnaires in two different contexts. Of the initial 150 questionnaires handed out, only 104 could be used. Factors influencing the exclusion of some questionnaires were (1) missing values in one or both questionnaires, (2) incomplete sections in either of the questionnaires, but mainly (3) the absence of some individuals from the second administration. Reasons for the absence varied from illness to the de-registration of some students from the university between the first and second administration. All the questionnaires completed in the first context were scored. It was evident that there were no differences of any consequence in response between the first questionnaires of the participants that only completed the first questionnaire, and those who completed both questionnaires. This provides the justification that exclusion of certain questionnaires did not bias the results.

One of the main reasons for choosing this particular sample was that subjects could be accessed in both contexts by utilising existing structures in the residential set-up at the university. Activities for first years in this setting are "regulated" in the sense that participation in preparation for rag is a compulsory activity. Furthermore, (religious) first year students also attend structured Bible study in small groups (cell groups) in their residences once a week. The cell leaders are second or third year students. The other reason was that it was anticipated - on the basis of commonly-held beliefs and perceptions about the nature of this university - that this sample would be more conservative than the sample used in the church study, and that

this contrast could potentially yield varied and interesting results (see Chapter 4 for reasons for this assumption).

The final sample was homogenous, consisting of 104 white subjects (80 females and 24 males), with ages ranging between 18 and 21 (mean age = 18.25). All but six (English-speaking) subjects were Afrikaans-speaking.

3.2.2 Context

The main thrust of the study was to investigate cross-context variations in expressions of tolerance of ambiguity. In order to achieve this, the context was manipulated across the two different sections of the study. The two different situations that were used were (1) at several residences where students were busy building rag floats and (2) at the same residences in cell groups immediately after Bible study.

The contexts were thus chosen to represent an overtly "ideological" context and another more "neutral" context in which different dynamics would be evident and in which different levels of value conflict would emerge. This was done, as already stated, in order to determine whether different contexts would influence expressions of attitudinal ambiguity tolerance. It was assumed that the religious forum of Bible study represented an overtly ideological context, whereas the context of preparations for rag could be used as a more neutral context. These two different contexts were anticipated to present subjects with different levels of value conflict in the different content domains, which would lead to subjects expressing various levels of tolerance / intolerance of ambiguity across the different contexts.

It is important to consider this university within the wider context of the new South Africa. Traditionally it has been one of the most conservative universities in South Africa. It is the only university that explicitly states that it follows a Christian-based approach, as reflected in its name (*Christelike Hoër Onderwys* translates as Christian Higher Education). The social perception is therefore that it endorses conservative values as far as both religion and politics are concerned. This was anticipated to stand in contrast to the environment of the church study discussed in Chapter 4, which is regarded socially to provide a much more liberal context.

It was anticipated that, in the more overtly “ideological” context (i.e. during Bible study), high levels of intolerance of ambiguity would be exhibited by those subjects whose views are in line with those of the ideology. However, in the more “neutral” context (i.e. during preparations for rag) it was predicted that these subjects would be more tolerant of ambiguity as their views might be challenged by the norms of that context.

Subtle racism, authoritarianism and conservatism were used as indices to investigate ideological belief/ideological conservatism, while various authority figures in different content domains (i.e. familial, political and religious) were used to investigate cross-content variability in the AAT scale. Subjects scoring high on subtle racism are expected to experience higher levels of value conflict with regards to political authorities than religious authorities, while the opposite would be true for highly religious subjects.

The prediction is that highly religious people would experience higher levels of value conflict towards Christian authorities in the laissez faire context of rag, as the different contextual norms might challenge their beliefs. Furthermore, in the context of rag, religious subjects might be more tolerant of ambiguity towards non-Christian authorities, as accountability towards others with different views might further increase the level of contextual value conflict. For the same reasons politically conservative, as well as highly authoritarian individuals, might experience more value conflict at rag towards liberal political authorities.

3.2.3 Procedure

The same sample completed a slightly different questionnaire (see Appendices A, B, C and D) in two different contexts. Both questionnaires were available in Afrikaans and English, hence four appendices (see "Measures" for a discussion of the translation). The translated versions are given only for the questionnaires used in the university study as they are essentially the same as those used for the church study.

In order to reduce the influence of carry over effects the two questionnaires were administered 16 weeks apart. Furthermore, the one scale (AAT) that was used in both questionnaires was shortened on the second occasion. The reason for using a shortened version of the AAT scale

was to maximise the response rate.

The subjects were requested to provide their names for the purpose of matching the two questionnaires. Due to the lack of anonymity, assurance of complete confidentiality was given to subjects on both occasions. This was given both verbally by the researcher and her assistants, and in a covering paragraph at the beginning of both questionnaires which stated that only the researcher would have access to the information in the questionnaires.

The first questionnaire was completed voluntarily during preparation for rag (specifically during the building of rag floats). The atmosphere was kept informal (e.g. music was playing in the background) and students were in a relaxed mood, *seemingly* unconcerned with outside pressures. Subjects were informed that the purpose of the study was to determine their personal and social beliefs and opinions regarding a number of issues. A request was made for them not to discuss their responses with other students and to complete the questionnaire without pondering too much on each question. The average time to complete the questionnaires ranged between 25 and 35 minutes. The researcher was present throughout the completion of the first questionnaire, and procedures were standardised. The following measures were included in the first questionnaire: socio-demographic variables, the Religiosity Scale, the Political Interest Scale, the Attitudinal Ambiguity Tolerance (AAT) Scale (45 items) and the Right-Wing Authoritarian Scale (RWA).

The second questionnaire was completed voluntarily in the different Bible study cell groups. Cell group leaders were used as research assistants for the administration and collection of questionnaires at the end of one such meeting. Subjects returned the questionnaires to research assistants in sealed envelopes in order to ensure confidentiality. They were also again assured of confidentiality both verbally and in a covering paragraph at the beginning of each questionnaire. The following measures were included in the second questionnaire: name and surname (for matching proposes), a shortened version of the Attitudinal Ambiguity Tolerance (AAT) scale (36 items), the Subtle Racism Scale and the Conservatism Scale.

The researcher briefed her assistants (i.e. Bible study cell group leaders) beforehand and gave clear instructions on standardised procedures to be followed. The importance of following these

procedures was emphasised strongly. Although the researcher herself was not present during the completion of the second questionnaires, feedback given by research assistants suggested that standardised procedures had been followed.

3.3 Measures

The measures used in the questionnaires were based on those used in Durrheim's (1995) study, since both the university and the church studies were extending his research and thus required comparability with earlier results.

Both questionnaires were available in Afrikaans and English. The translation was done by the researcher whose home language is Afrikaans and who is fully bilingual and therefore able to capture the necessary nuances in translation. The translation was checked for accuracy by a qualified, practising translator before the questionnaires were administered. Problems that were experienced and uncertainties about some aspects of the translation were then sorted out.

Questionnaires consisted of a number of socio-demographic items as well as psychometric scales, which measured different constructs of tolerance of ambiguity, ideological beliefs and ideological commitment. Socio-demographic items collected background information on each subject, including political party preference, age, etc.

3.3.1 Socio-demographic variables

Although other variables, such as year and field of study, etc. were asked in the first questionnaire, only the following socio-demographic variables were used for descriptive and explanatory purposes (see Appendices A and C, Section 1 and Section 2, questions 1 - 4):

1. Sex (coded male and female).
2. Age (in years).

3. Political party preference (coded as New National Party, African National Congress, Afrikaner Weerstandsbeweging, Inkatha Freedom Party, South African Communist Party, Democratic Party, Azanian People's Organisation, Conservative Party, Pan African Congress, Freedom Front, United Democratic Movement and Other). Subjects were requested to indicate which party they were "most likely" to support, and which party they were "least likely" to support.
4. Population group (coded as Black, White, Indian, Asian and Other - specify).
5. Home Language (coded as Afrikaans, English, Oriental language, Sotho - with sub-categories Southern Sotho, Tswana and Northern Sotho/Pedi; Nguni - with sub-categories Swazi, Ndebele, Xhosa and Zulu; Shangaan/Tsonga, Venda/Lembe and Other - specify).
6. Self-ranked liberalism-conservatism (coded on a 7-point scale ranging from "very liberal" [1] to "very conservative [7]).

Since the university has been opened to all races the researcher had anticipated that the sample would be more representative of the broader society in terms of both population group and language. However, this was not the case. A reason for this may be a lack of integration in residences, a fact that underscored the conservative nature of the institution.

3.3.2 Ideological Conservatism

Since the measures of ideological conservatism were designed for use in the pre-democratic South Africa, it was essential to closely investigate the psychometric properties of the scales before they were used to test substantive hypotheses. Each measure was first factor analysed to assess dimensionality. When responses to the scales were manifestly multidimensional, subscales were constructed by summing the unweighted scores of all scale items that loaded greater than .40 on each of the factors. Item total correlations were used to eliminate poor items. Cronbach alpha coefficients were then calculated for each subscale to confirm the internal consistency of the measures. These measures included the Subtle Racism Scale, the

Right Wing Authoritarian Scale, the Conservatism Scale and a Self-Rating Scale.

3.3.2.1 Subtle Racism

Scores on the 10-item version of the Duckitt's (1991) Subtle Racism scale were submitted to principal components factor analysis (see Appendices B and D, section 3 for the scale). Although there were three factors with eigenvalues greater than one, the scree test indicated that two factors could provide the most parsimonious solution. These factors — explaining 32.2 and 14.3 percentage of the total variance respectively — were rotated by the varimax method, yielding the solution reported in Table 3.1. An inspection of the item content of the two factors suggested that the first factor be named equality, and the second factor be named political and economic control. The items that make up the equality factor concern issues about how race groups should be treated. Public support for unequal treatment is taboo in contemporary South African society. The items in the second factor are more concerned with opinions about fairness as well as economic and political control. Social sanction (or the lack thereof) regarding the latter factor seems more contested.

Table 3.1. Factor solution for the Subtle Racism Scale.

Item	Equality	Control	Communality
1. Given the same education and opportunities, blacks should be able to perform as well as whites in any field.	.62		.40
2. It would be unfair if greater expenditure on black education were to be funded by the white taxpayer.		.75	.57
3. Given favourable conditions it is quite possible that black majority rule could result in a stable, prosperous and democratic South Africa.	.57		.40
4. Only equality between black and white can in the long run guarantee social peace in this country.	.75		.57
5. The large-scale extension of political rights to blacks will inevitably lead to chaos.		.68	.49
6. The wealth of this country is almost entirely due to the hard work and leadership of the whites.		.73	.55
7. Although black living conditions should be improved, it is crucial for the stable development of the country that whites retain political control.		.64	.53
8. It is important that drastic steps be taken to ensure a far more equitable division of wealth in this country.	.35		.13
9. If all races were permitted to mix freely they would probably live in peace.	.69		.51
10. It is almost certainly best for all concerned that interracial marriages not be allowed.	.59	.39	.51

The items that loaded on each factor were then subjected to reliability analysis. Item 8 was found to have a low item-total correlation with the equality factor and was eliminated. The remaining five items had a Cronbach alpha coefficient of .71. The 4 items of the Control subscale had a Cronbach alpha of .72. Item 10 was eliminated due to its low item-total correlation with the control factor. The unweighted sum of the items was used as indices of SR_Control and SR_Equal. A 9-point Likert-type scale, rated from 0 – 8, was used for all items. The scores on SR_Equal range from a lower limit of 0 (low subtle racism, equality) to an upper limit of 40 (high subtle racism, equality). The scores on SR_Control range from a lower limit of 0 (low subtle racism, control) to an upper limit of 32 (high subtle racism, control).

Two possible reasons for the two-dimensional nature of the subtle racism scale is hypothesised. Firstly, due to the changes in the country (post apartheid) the consciousness and nature of ideologies may have changed. Clearer differentiation between concepts within an ideology may result in these becoming multi-dimensional. A second possibility is that, because the scales were developed in the pre-democratic South Africa they are no longer valid. It must be emphasised that the size of the sample was too small for any conclusive statements to be made. It is suggested that future studies investigate the validity again to clarify this matter.

3.3.2.2 Right Wing Authoritarianism

Scores on the 14-item RWA scale (Duckitt, 1990) were submitted to principal components factor analysis (see Appendices A and C, Section 5 for the scale). By means of the scree test, three factors were extracted explaining 20%, 15%, and 10% of the total variance respectively. The factors were rotated orthogonally by the varimax transformation, to yield the factor structure reported in Table 3.2. The table reflects only loadings above .30. The items with loadings stronger than .40 on each factor were then further analysed to determine whether their shared intercorrelations were sufficient to consider the three factors reliable measures. The internal consistency of Factor 2 ($\alpha = .52$) and Factor 3 ($\alpha = .40$) was unacceptably low. After item 12 was dropped from Factor 1, the remaining 5 items had an internal consistency of $\alpha = .70$. The unweighted sum of these items was used as an index of authoritarianism. A 9-point Likert-type scale, rated from 0 – 8, was used for all items. The scores range from a lower limit of 0 (low authoritarianism) to an upper limit of 40 (high authoritarianism).

Table 3.2. Factor solution for the RWA Scale.

Item	F 1	F 2	F 3	Com
1. It is always better to trust the judgement of the proper authorities in government and religion, than to listen to the noisy rabble rousers in our society who are trying to create doubt in people's minds.			.38	.25
2. There is nothing immoral or sick in somebody being a homosexual.			.49	.31
3. The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.	.55			.49
4. "Free speech" means that people should even be allowed to make speeches and write books urging the overthrow of the government.			.58	.37
5. In these troubled times laws have to be enforced without mercy, especially when dealing with agitators and revolutionaries who are stirring things up.	.64			.42
6. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.	.64			.45
7. It is best to treat dissenters with leniency and an open mind, since new ideas are the lifeblood of progressive change.		.56		.52
8. The biggest threat to our freedom comes from the communists and their kind, who are out to destroy religion, ridicule patriotism, corrupt the youth, and in general undermine our whole way of life.	.69			.57
9. The way things are going in this country, it is going to take a lot of "strong medicine" to straiten out the troublemakers, criminals and perverts.	.72			.67
10. It is important to protect fully the rights of radicals and deviants.		.78		.64
11. Rules about being "well-mannered" and respectable are chains from the past, which we should question very thoroughly before accepting.			.37	.16
12. Once the government leaders and the authorities condemn the dangerous elements in our society, it will be the duty of every patriotic citizen to help stamp out the rot that is poisoning our country from within.	.50			.46
13. The self-righteous "forces of law and order" threaten freedom in our country a lot more than most of the groups they claim are "radical" and "godless".		.65		.46
14. Students in high school and at university must be encouraged to challenge their parents' ways, confront established authorities, and in general criticise the customs and traditions of our society.			.70	.51

3.3.2.3 Conservatism

Scores on the 32-item South African Conservatism scale (Durrheim & Foster, 1997) were submitted to principal components factor analysis (see Appendices B and D, section 4 for the scale). Three factors — explaining 11.6%, 7.7%, and 6.4% of the variance respectively — were extracted on the basis of the scree plot. The factors were rotated both obliquely and orthogonally in an attempt to achieve simple structure. The varimax solution was retained as the final factor structure (see Table 3.3). The items with loadings stronger than .40 on each factor were analysed to determine the internal consistency of each factor. The internal consistency of Factor 1 ($\alpha = .71$) was acceptable, while reliability of Factor 2 ($\alpha = .17$) and Factor 3 ($\alpha = .18$) was unacceptably low. Unweighted sum of scores for the items of Factor 1

was used as a general index of conservatism. A 3-point scale, rated from 0 – 2, was used for all items. The scores range from a lower limit of 0 (low conservatism) to an upper limit of 22 (high conservatism).

Table 3.3. Factor solution for the South African Conservatism Scale

Item	F 1	F 2	F 3	Commun
1. Evolution theory		.51		.31
2. School uniforms	.40		.40	.32
3. Striptease shows	.53			.28
4. Modern Art		.45		.26
5. Military service				.08
6. Socialism				.04
7. Divine Law				.13
8. Moral training			.54	.32
9. Suicide		.36		.24
10. Chaperons		-.47		.33
11. Social welfare			.59	.35
12. Legalised abortion	.60			.37
13. Chastity				.18
14. Female judges				.08
15. Big Business				.13
16. Conventional clothing		-.60		.39
17. Nudist camps	.69			.48
18. Mass Action				.19
19. Church authority	.47			.23
20. Disarmament		.48	-.42	.44
21. Censorship			.50	.34
22. Strict rules	.39	-.36		.32
23. Social Equality				.20
24. Casual Living	.48			.24
25. Divorce	.39			.24
26. Religious truth			.42	.23
27. Legalising dagga	.55			.31
28. Privatised health care				.02
29. One person one vote		.50		.39
30. Homosexuality	.54			.35
31. Political radicalism		.39		.33
32. Strikes	.36			.17

3.3.3 Ideological Commitment

The scales that were used to determine ideological commitment included the Religiosity Scale and the Political Interest Scale. They were employed to determine their potential influence as variables that may mediate the relationship between cognitive style and ideological beliefs in the religious and political domains.

3.3.3.1 Religiosity

Religiosity as defined by Rohrbaugh & Jessor (1975) is "an attribute of personality referring to cognitive orientations about a transcendent reality and about one's relationship to it, orientations which are directly implicated by the impact they have on daily, secular life, and by participation in ritual practices. This conceptualisation enables a linkage between religiosity and control against deviance which can be mediated in several different but converging ways" (p. 137).

The eight items of the Rohrbaugh and Jessor Scale (1975) were submitted to principal components factor analysis; and in contrast to previous research (e.g., Nicholas & Durrheim, 1996; Rohrbaugh & Jessor, 1975), the scale was found to be multidimensional (see Appendices A and C, Section 3 for the scale). Three factors with eigenvalues greater than unity were rotated by the varimax procedure (see Table 3.4). Items that referred to people's subjective feelings about God and religious devotion weighted on Factor 1 (R_Subjective), whereas Factor 2 was made up of items that tapped objective information about the amount of time spent at religious gatherings (R_Objective). The objective index was therefore related to the frequency of attendance, prayer, etc., while the subjective index related more to the extent to which religion is integrated into daily life, suggesting that religious values are more internalised. Factor 3 was defined solely by item 8 of the scale, and this item and factor were dropped from further analysis. Weighted factor scores for the first two factors were saved and employed as objective and subjective indices of religiosity. The two factors explained 27.7% and 16.2% of the variance respectively.

It is posited that, due to the conservative religious context of the university, as well as the strong emphasis placed on religion (Christian Higher Education) some students may feel pressurised to attend religious gatherings frequently even though they may not necessarily internalise the values and teachings of their religion. This may have resulted in two different factors on this scale. These factors may therefore be a function of this particular overtly religious university context. Again it should also be considered that the sample was quite small, and therefore no definitive conclusions can be reached on the basis of the findings of this particular sample group.

Table 3.4. Factor solution for the Religiosity Scale.

Item	Subjective	Objective	F 3	Com
1. How often have you attended religious services in the last year?		.60		.41
2. Which of the following best describes your practice of prayer or religious mediation?	.72			.53
3. When you have a serious problem, how often do you take religious advice or teaching into consideration?		.79		.73
4. How much influence would you say that religion has on the way that you choose to act and the way that you choose to spend your time each day?	.61	.46		.59
5. During the past year, how often have you experienced a feeling of religious reverence or devotion?	.57	.43		.52
6. Do you agree with the following statement? Religion gives me a great amount of comfort and security in life.	.66			.46
7. Which of the following statements comes closest to your belief about God?	.60			.47
8. Which one of the following statements comes closest to your belief about life after death?			.90	.80

3.3.3.2 Political Interest

The items used by Durrheim to develop the Political Interest Scale “were based on Sidanius’ (1988b) measure of ‘cognitive orientation toward politics’, but also included emotive aspects of political involvement” (Durrheim, 1995, p. 146).

The four items that make up the Political Interest Scale (see Appendices A and C, Section 2, items 5 to 8) were found to have strong item total correlations and an alpha Cronbach alpha coefficient of $\alpha = .78$. The unweighted sum of these items was used as an index of political interest. A 10-point Likert-type scale, rated from 0 – 9, was used for all items. The scores range from a lower limit of 0 (low interest) to an upper limit of 27 (high interest).

3.3.4 Attitudinal Ambiguity Tolerance

Since tolerance of ambiguity and its measurement forms the central focus of the study, the concept and various instruments attempting to measure it will be discussed in more detail.

3.3.4.1 Background

Frenkel-Brunswik's (1949) original definition of the concept tolerance of ambiguity described it

as an attitudinal variable indicating that an individual can identify and integrate the presence of both positive and negative qualities in one object or person. Her research was located in the wider context of psychoanalytic personality theory, and regarded cognitive style as a personality trait. The concept was regarded as a bipolar cognitive trait, with intolerance of ambiguity being its inflexible counterpart on the opposite side of a rigid-flexible continuum.

In an attempt to operationalise the concept and to test its generalisability Frenkel-Brunswik included non-evaluative and asocial measures to enable her to arrive at conclusions in a deductive manner. If intolerance of ambiguity could be related to these non-evaluative and asocial measures, generalisability of the construct could be assumed.

According to Bochner (1965), Frenkel-Brunswik described the concept of intolerance of ambiguity in terms of 'criterion characteristics' or primary defining characteristics and categorised it into a syndrome with other personality variables. These are: "(a) rigid dichotomising into fixed categories – the 'need for categorisation'; (b) seeking for certainty and avoiding ambiguity – 'need for certainty'; (c) inability to allow for the co-existence of positive and negative features in the same object, e.g. 'good' and 'bad' traits in the same person; (d) acceptance of attitude statements representing a rigid white-black view of life; (e) a preference for the familiar over the unfamiliar; (f) a positive rejecting of the different or unusual; (g) resistance to reversal of apparent fluctuating stimuli;(h) the early selection and maintenance of one solution in a perceptually ambiguous situation; (i) premature closure" (Bochner, 1965, p. 394).

Bochner (1965) postulated that attempts by other researchers to clearly define intolerance of ambiguity have been thwarted by logical errors contained in the experimental procedures and poor psychometric qualities of the measures that were used.

According to Durrheim (1995), the main reason for the subsequent misinterpretation of and confusion surrounding the definition stemmed from two types of errors made by other researchers: (1) they incorporated the operationalised aspects that Frenkel-Brunswik had used for deductive testing as part of their descriptions or definitions of the concept and (2) they drew on other research in the field which had distorted the original concept or had departed from it. This

is evident in the error that Bochner (1965) had made when he included two non-evaluative, asocial aspects in the cluster of primary criterion characteristics.

These errors ultimately led to a splitting between the content and style of cognition. Researchers started measuring the concept "independently of emotions, social context and cognitive content" (Durrheim, 1995, p. 68). Instead it was treated as a formal, pervasive property of individual functioning. The association, that manifest intolerance of ambiguity was a reaction to emotionally threatening contents and as such a defence against an underlying ego-weakness, had disappeared. It was now defined instead as a stable, personality trait that is generalised across content and context. Unverified assumptions were thus incorporated into its definition.

Several measures for the different constructs of cognitive style have been devised. However, most instruments measure only a limited part of the concept, which in turn then lay down the parameters of its definition.

3.3.4.2 Different measures of Tolerance of Ambiguity

Three major types of operational techniques for measuring intolerance of ambiguity exist. The first category gauges reactions to ambiguous stimuli; the second consists of scaling procedures, while the third assesses evaluative categorisation (Durrheim 1995).

Two examples of measurements gauging reactions to ambiguous stimuli include the Rorschach test and the autokinetic illusion. These measures looked at performance in ambiguous (perceptual) tasks (the Rorschach test and the autokinetic illusion), as well as the liking/disliking of ambiguous stimuli (Azzageddi test). However, none of these measures have yielded consistent support for the relationship between cognitive style (intolerance of ambiguity) and ideological beliefs, in this instance, authoritarianism (Durrheim, 1995).

Scaling measures usually consist of items that examine personal reactions to ambiguous or uncertain events or situations. These types of scales include such instruments as the Budner scale (1962) and the Norton scale (1975), both of which are scored by a Likert-type format as well as the Rydell-Rosen Scale (1966), which consists of dichotomous true-false response

categories. These measures have also not produced uniform findings confirming a direct isomorphic relationship between cognitive style and cognitive content.

Evaluative categorisation-type instruments include the Paragraph Completion Test (Schroder *et al.*, 1967) in which subjects have to complete several sentence stems (e.g. “When I am in doubt...”) with a short written paragraph. According to Schroder and colleagues the items “represent the presentation of discrepancy, uncertainty, control or restraint, and therefore tend to engage the subject in some form of ‘resolution’” (Schroder *et al.*, 1967, p. 190). This type of instrument is performance-related.

Another example of this type of instrument is the one developed by Scott and colleagues (1979), who designed a measurement consisting of several objects, followed by list of 20 adjectives. An equal number of favourable and unfavourable adjectives were included in this list. Subjects could assign any number of adjectives to each object contained in the scale. This enabled subjects to ascribe both positive and negative evaluations to a single object, therefore examining “object ambivalence”. This instrument incorporated both the evaluative and social characteristics that were included in Frenkel-Brunswik’s definition of tolerance of ambiguity.

Although seen to be a step in the right direction, Durrheim (1995) regarded this instrument to be problematic, since it was extremely difficult to determine whether the subjects’ connotation to the evaluative nature of these adjectives was similar to that of the researcher. Another problem that Durrheim had with this measure was that Scott did not have a coherent theory of individual variability in cognitive style, since intra-individual variability, according to him, is grounded in a theory of individual difference. “His social learning theory has no way of explaining the relationship between cognitive style and cognitive content which does not reduce to differential experience” (Durrheim, 1995, p.84). This prevents him from explaining any general non-random association between ideological contents and cognitive style.

The misinterpretations around the concept and measurement of tolerance of ambiguity resulted in research methods that measured asocial, non-evaluative tasks to determine intolerance of ambiguity. This was evident in the first two categories (i.e. gauging reactions to ambiguous stimuli and scaling measures). Frenkel-Brunswik originally included these tasks purely to assess

whether tolerance of ambiguity could be generalised from non-evaluative tasks to tasks assessing emotional ambivalence, as this would provide support for the personality status of cognitive style. However, subsequent researchers clung to these deductive measures as part of the definition. To complicate the issue, clarity is not provided on what the link between such tasks and the social evaluative concept of intolerance of ambiguity is.

All three categories of instruments (i.e. including evaluative categorisation) have resulted in the development of measures that assign single scores that place individuals on a continuum ranging from tolerant to intolerant. Consequently it implicitly suggests that individual consistency exists, and leaves no room for variability or change (Durrheim, 1995). In a study where variability is anticipated such instruments would have obvious shortcomings.

A further criticism is that the measures often confound the style and content of beliefs, which resulted in most of the measuring instruments assessing content and style simultaneously instead of separating the two concepts methodologically. One such measure is the Budner Scale (1962). The items in this scale purport to measure an attitudinal variable, but they are designed in such a way that they actually relate to overall socio-political ideology, and as such cannot be regarded to be a valid measure of tolerance of ambiguity (Sidanius, 1978a).

Other problems include a lack of internal consistency of some scales (Durrheim & Foster, 1997). Furthermore, factor analyses have shown that tolerance of ambiguity is a multidimensional construct and as such cannot be measured effectively by a unidimensional scale (Sidanius, 1978a, 1978b; Furnham, 1994).

In an attempt to address the various difficulties, Durrheim (1995) devised another measure, the Attitudinal Ambiguity Tolerance Scale (AAT). This scale meets Rokeach's (1960) "first requirement" in that it measures the underlying structure, rather than the content of cognitive style. He operationalised ambiguity tolerance as an evaluative attitudinal variable that may reveal different kinds of evaluative categorisation, thus measuring the concept as originally defined by Frenkel-Brunswik. The scale was designed in such a way that personality-based assumptions were avoided and that potential cross-content variability in tolerance of ambiguity could be assessed.

3.3.4.3 The Attitudinal Ambiguity Tolerance Scale (AAT Scale)

The AAT scale was designed following the work of Scott and colleagues (1979), since Durrheim had regarded their instrument to be problematic, but simultaneously to be an improvement on previous scales. The AAT scale is based on Kaplan's (1972) Attitude Component Technique, which employs a unipolar scaling procedure. Durrheim (1995) modified and developed this instrument to measure attitudinal ambiguity tolerance.

Since authority figures are central to ideologies, subjects are requested to assess various (45) authority figures across religious, political and familial domains on two independent 11-point unipolar scales (see Appendices A and C, Section 4 for the full scale and Appendices B and D, Section 2 for the shortened version). The one scale requires a rating by subjects on a scale from 0 to 10 that reflects the degree of respect (or liking) sometimes experienced towards each authority figure. The other assesses the degree of disrespect (or disliking) sometimes felt towards the same authority figures. This method provides subjects with the chance "to simultaneously indicate both a favourable and an unfavourable attitude towards a given stimulus object" (Kaplan, 1972, p. 362). As such it meets an essential requirement for a scale purporting to measure ambivalence.

In discussions with him, Mr Aubrey Blecher from the Department of Mathematics at the University of the Witwatersrand, Johannesburg, critiqued the formula used in the AAT scale. Please see Appendix G for this critique and as well as his proposed improvement of the formula. It is important to note that this critique was only done after the analysis of the data had been completed.

Figure 3.1. Instructions and format of the Attitudinal Ambiguity Tolerance Scale

It is assumed here that your attitude toward any given authority is a mixture of both likes (respect) and dislikes (disrespect), given different situations. Give two scores for each of the following authorities or authority figures, one indicating the level that you sometimes like (respect) the authority, the other the level of your possible dislike (disrespect). Please circle the appropriate figures. Give your immediate reaction. The best answer is your personal opinion.

Example 1: If on occasions you truly respect the American government and support their decisions, but on other occasions you hold them in contempt. Then you could answer:

The American Government

Like/respect																	
Not at all	0	1	2	3	4	5	6	7	8	9	10						Very much
Dislike/disrespect																	
Not at all	0	1	2	3	4	5	6	7	8	9	10						Very much

Example 2: If you respect John Major completely and support him at all times, then you may answer:

Prime Minister John Major

Like/respect																	
Not at all	0	1	2	3	4	5	6	7	8	9	10						Very much
Dislike/disrespect																	
Not at all	0	1	2	3	4	5	6	7	8	9	10						Very much

The following formula is used to give an estimate of the level of tolerance of ambiguity expressed by a subject:

$$AAT = \frac{2L + 1}{L + H + 2}$$

AAT scores increase when (1) similar responses are given to both the positive and negative scales (in other words, the extent to which H and L are alike, and (2) the maximum degree of respect and disrespect are reached (i.e. as H and L both approach 10). When L = 0 and H = 10 the lower limit of AAT scores is reached. The scores range from an upper limit of 0.95 (ambivalent) to a lower limit of 0.08 (unambivalent).

This scale overcomes several of the difficulties mentioned above in various ways. By measuring the underlying structure and not the content of cognitive style, Durrheim does not assume the existence of a specific relationship between tolerance of ambiguity and ideological belief. He also does not presume that tolerance/intolerance of ambiguity is a stable, generalised trait. The

absence of these assumptions facilitates the testing of both cross-content and cross-context variability in attitudinal ambiguity tolerance.

3.4 Results

In brief, expectations were that the level of value conflict in a particular context, as well as in a specific content domain, would influence the expression of tolerance/ intolerance of ambiguity: the higher the conflict, the more tolerant of ambiguity subjects would be; the less conflict experienced, the more intolerant of ambiguity subjects would be.

The results that were yielded in the university study are seen against the background of these expectations and will be discussed below.

3.4.1 Factor Analysis

On the first occasion (rag) the full AAT scale (45 items) was used, while the shortened version (36 items) was used on the second occasion (Bible study). Principal components factor analysis of the AAT scale was conducted separately on both sets of scores (i.e. from both occasions of measurement). The aim of the analysis was 1) to generate meaningful factors of AAT responses, and 2) to ensure that the pattern of responses was similar on both occasions on which the scale was completed. On the basis of the scree test, 6 factors were extracted from the first set of scores and 4 factors were extracted from the second set. In each case, these were rotated by the varimax transformation. As Durrheim and Foster (1997) reported, factor analysis clustered the scores on the items according to content domain.

The first set of scores was clustered into the following factors: religious (e.g. God, church leader), non-Christian religious (e.g. Koran, Buddha, Mohammed), personal (e.g. own values, friends), political (e.g. SA government, Nelson Mandela), and legal (e.g. the courts, the police). Only three factors were replicated in the second set of scores, namely political, religious, and non-Christian religion.

Items that were common to these three factors in both the first and second data sets were analysed to determine whether they formed reliable measures of the following constructs:

1. Attitudinal ambiguity tolerance towards Christian religious authorities (AAT_Chr). The unweighted sum of the AAT scores for the items Jesus Christ, the Bible, God, Family, Parents. The reliability of the measure was adequate for both the first ($\alpha = .71$) and second ($\alpha = .80$) set of scores.
2. Attitudinal ambiguity tolerance towards non-Christian religious authorities (AAT_nChr). The unweighted sum of the AAT scores for the items Mohammed, Buddha, and the Koran. The reliability of the measure was adequate for both the first ($\alpha = .82$) and second ($\alpha = .73$) set of scores.
3. Attitudinal ambiguity tolerance towards political authorities (AAT_Pol). The unweighted sum of the AAT scores for the items SA government, Mandela, SACP, ANC, MK, OAU, Buthelezi. The reliability of the measure was adequate for both the first ($\alpha = .74$) and second ($\alpha = .76$) set of scores.

The first set of data (at rag) is referred to as AAT_Chr1, AAT_nChr1 and AAT_Pol1, whereas the second set (at Bible Study) is called AAT_Chr2, AAT_nChr2 and AAT_Pol2. If the factor is not followed by a number (e.g. AAT_nChr) it refers to the difference scores between the data responses on the two occasions.

3.4.2 Scale Statistics

Scores on all measures were more or less normally distributed. Means, standard deviations and sample sizes for all indices used in the study were computed (see Table 3.5).

Table 3.5. Summary of statistics measures used in Study 1

Measure	Cases	Mean	SD
Conservatism	103	20.1748	3.7870
RWA	104	29.0385	6.9295
Pol_Opinion	101	3.6832	1.1656
Pol_Interest	104	13.5962	6.2869
R_Objective	102	-.0267	1.0159
R_Subjective	102	.0858	.9539
SR_Equal	103	22.1068	7.3497
SR_Control	103	21.6602	5.7216
AAT_Chr1	103	.7199	.4182
AAT_Chr2	99	.7836	.6555
AAT_nChr1	103	.7270	.6900
AAT_nChr2	99	.7881	.7585
AAT_Chr	98	-.0505	.6409
AAT_nChr	98	-.0435	.6762
AAT_Pol1	103	3.9283	1.4481
AAT_Pol2	99	3.8221	1.4922
AAT_Pol	98	.1188	1.3776

3.4.3 Correlational analysis

3.4.3.1 Correlations between the indices of ideological conservatism

Scores on measures of conservatism, racism and right-wing authoritarianism are expected to correlate strongly (Adorno, *et al.*, 1950; Altemeyer, 1981). However, the measures did not reflect the expected correlations, neither, as mentioned above, were they unidimensional in this study.

The pattern of correlations reported in Table 3.6 show only weak correlations between the two indices of Subtle Racism and the Conservatism measure. The RWA scale correlated with neither racism nor conservatism, suggesting that the RWA scale may no longer be a valid measure of authoritarianism in contemporary South African society. The correlation between self-rated liberalism-conservatism and the equality items of the Subtle Racism scale suggests that it is with reference to their opinions about racial equality that the subjects judged their conservatism. Opinions about fairness and political control were not considered, as attitudes with regard to

these aspects seem to be much more ambiguous and not so clearly taboo.

Table 3.6. Intercorrelations between indices of ideological conservatism.

	SR_Control	SR_Equal	RWA	Conservatism
SR_Equal	.32***			
RWA	.00	.11		
Conservatism	.22*	.29**	.07	
Self rating	.06	.25*	.05	.16

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

3.4.3.2 Correlations between the measures of ideological conservatism and ideological commitment

Table 3.7 reports the correlations between the measures of ideological conservatism and ideological interest. Political interest and the objective aspects of religiosity (R_Objective) were not related to any of the indices of ideological conservatism. Ideological commitment, as expressed in the experiential aspects of religiosity (R_Subjective), was related to conservatism and support for racist inequalities. The religious teachings at this university are socially perceived to be conservative. It is hypothesised that their religion may therefore, to a certain extent, be seen to sanction these attitudes. Overall, it did not appear as though ideological commitment could explain the attitudinal beliefs of the subjects.

Table 3.7. Correlations between indices of ideological conservatism and ideological commitment (religiosity and political interest).

	SR_Control	SR_Equal	RWA	Conservatism	Self-rating
R_Objective	-.17	-.07	-.15	.12	-.05
R_Subjective	.07	.20*	.09	.50***	-.05
Pol_Interest	.03	-.06	.09	-.03	-.09

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

3.4.3.3 Correlations between AAT indices

Finally, scores on each of the AAT indices were correlated to determine whether 1) AAT scores for each domain of authority were stable across time, and 2) AAT scores for different domains of authority were correlated.

The matrix in Table 3.8 shows that the first and second set of scores on each of the measures correlated significantly, suggesting that the measures have test-retest reliability. Also, the results indicate that attitudinal ambiguity tolerance toward Christian authorities was not related to attitudinal ambiguity tolerance toward the other two domains of authority, whereas AAT-non-Christian and AAT-Political were related. It is postulated that for this sample group there may be no sharp distinction between these authority figures since the authorities in both these domains may be regarded as "outgroups" in this religiously and politically conservative environment. Judgement of these authorities would therefore not activate high levels of conflict, as subjects would feel that their views are sanctioned by the larger university context in which they operate. Subjects did, however, clearly distinguish Christian authorities from the other two dimensions of authority, a result that is congruent with the religious context of the university.

Table 3.8. Correlations between AAT indices

	AAT_ Chr 1	AAT_ Chr 2	AAT_ nChr 1	AAT_ nChr 2	AAT_ Pol 1
AAT_Ch2	.36***				
AAT_nChr 1	.01	-.10			
AAT_nChr 2	.05	.16	.58***		
AAT_Pol 1	.09	-.11	.35***	.12	
AAT_Pol 2	.12	.15	.35***	.32***	.57***

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

3.4.4 Regression Analysis

3.4.4.1 The relationship between ideological conservatism, ideological commitment and tolerance of ambiguity

Polynomial regression analysis was performed to determine whether tolerance of attitudinal ambiguity scores were related to the indices of ideological conservatism and commitment. Each index of AAT was used as the dependent variable in a series of separate regression equations that tested for linear and quadratic associations with the ideological conservatism and commitment indices. In each equation, the linear term was entered first, followed by the quadratic term (cf. Cohen & Cohen, 1983).

The pattern of associations is reported in Table 3.9. The results reiterate those of Durrheim (1995, 1998). Once the researcher distinguishes between different content domains of conservatism and expressions of AAT, there is no single relationship between attitudinal conservatism and tolerance of ambiguity. Both positive and negative linear and quadratic associations were recorded.

It was also apparent that the associations were patterned such that AAT scores were only related to particular indices of ideological conservatism and commitment. In his earlier research Durrheim (1995) noted that “whereas ambivalent evaluation of political authorities was associated with political belief contents (radicalism-conservatism), similar evaluation of religious authorities was associated with commitment to religion rather than any particular religious contents (orthodoxy)” (p. 160). Similar results were manifest here. AAT_Christian was related to religiosity and the index of ideological commitment, rather than attitudinal belief content.

The remainder of the associations reported in Table 3.9 consist of positive linear associations and negative quadratic associations.

Table 3.9. Linear and quadratic effects for AAT indices.

	AAT_ Chr 1	AAT_ Chr 2	AAT_ nChr 1	AAT_ Pol 1	AAT_ Pol 2
R_Objective		Lin $\beta = 0.26$ $t = 2.25, p = .01$			
R_Subjective	Lin $\beta = -0.41$ $t = -2.97, p = .004$		Lin $\beta = -0.49$ $t = -3.7, p = .0004$ Quad $\beta = -0.42$ $t = -3.1, p = .003$		
SR_Control			Lin $\beta = 1.15$ $t = 2.13, p = .04$ Quad $\beta = -1.24$ $t = -2.29, p = .02$	Lin $\beta = 1.09$ $t = 1.99, p = .05$	
RWA					Lin $\beta = 0.89$ $t = 1.95, p = .05$ Quad $\beta = -0.98$ $t = -2.17, p = .03$
Conservatism			Lin $\beta = 1.22$ $t = 2.08, p = .04$ Quad $\beta = -1.34$ $t = -2.29, p = .02$		

The positive linear relationships are directly contrary to the predictions of Adorno and colleagues - and indeed all personality-based theories of the relationship between intolerance of ambiguity and attitudinal conservatism, as there was no consistent, stable and invariable relationship evident.

The different conditions under which the scale was completed appeared to have a substantial impact on the results.

On the first occasion (at rag), more religious individuals expressed intolerance of ambiguity towards Christian authorities, as evident from the negative linear relationship between R_Subjective and AAT_Chr1, whereas on the second occasion (at Bible study) less religious individuals expressed intolerance of ambiguity towards the same authorities. The latter is evident from the positive linear relationship between R_Objective and AAT_Chr2. Both these results are contrary to the contextual value conflict predictions made earlier.

Highly religious subjects who had internalised the values of their religious teachings experienced lower value conflict around these authorities at rag. It is hypothesised that in

view of the “permissive” spirit that they were faced with, these individuals may have wanted specifically to take a stand for their religion and in this way experienced less value conflict. This is in line with the view of Cialdini and colleagues (1976) that individuals may express their views on issues that are of great importance to them in an uncompromising way when confronted by opposing views.

Less religious individuals who may be inclined to attend Bible study for reasons of social pressure and who have not internalised religious values seem to have experienced less value conflict in the religious context. In this instance, being accountable to others whose views are known to them, may have led these subjects to choose the “lazy” option of strategically shifting their views to be in line with the contextual norms (Tetlock, 1993). On the other hand, it is also possible that their views were in fact in agreement with those of the context, resulting in decreased contextual value conflict.

The positive linear relationship between SR_Control and AAT_Pol1 means that high scorers on subtle racism were more tolerant of ambiguity towards political authorities on the first occasion (rag). This trend is in line with predictions around contextual value conflict. Being accountable to others with opposing views seems to have raised the level of value conflict for these subjects in this particular content domain (Tetlock, 1983a, 1993, 1994).

The positive linear relationship between SR_Control and AAT-nChr1 also means that high scorers on subtle racism were more tolerant of ambiguity towards non-Christian authorities at rag. Although not predicted by the researcher, this finding could be understood in similar terms to those in the previous paragraph. Furthermore, also in line with Tetlock’s (1994) views on accountability the presence of the researcher, whose views were unknown to the subjects, may have increased the level of value conflict even more. This idea is also applicable to the previous paragraph.

The positive linear relationship between RWA and AAT-Pol2 indicates that high scorers on authoritarianism were more tolerant of ambiguity towards political authorities at Bible study. This correlation is against the trend that was predicted by contextual value conflict, since the views of these subjects were expected to be similar to those of their ideology. This finding is

difficult to explain.

The positive linear relationship between Conservatism and AAT_nChr1 indicated that more conservative subjects showed more tolerance of ambiguity towards non-Christian authorities on the first occasion (rag). This is in line with the prediction around contextual value conflict, as it seems as though the contextual norms of this group may have challenged the views of these subjects, thus raising the contextual value conflict (Durrheim, 1995). Accountability to subjects with opposing views may have increased the level of contextual value conflict further (Tetlock, 1993, 1994).

The negative linear relationship between R_Subjective and AAT_nChr1 indicates that more religious subjects showed less ambiguity tolerance towards non-Christian authorities on the first occasion (rag). This is against the anticipated trend of contextual value conflict. Again it is postulated that, in the face of opposing views, these individuals may have wanted to take an unambiguous stance about these authorities (Cialdini *et al.*, 1976), in order to confirm their commitment to their own religion.

The negative quadratic terms indicate that the point of inflection was a maximum value, suggesting that moderates expressed higher levels of attitudinal ambiguity tolerance than extremists did. These findings are in agreement with Rokeach's extremism theory. However, they do not support his theory, as these associations varied across content domain and were not stable, generalisable or invariant.

From the above results it is clear that the value conflict in the different contexts emerged in very complicated ways, much more so than predicted by the researcher. The findings also indicate that it is extremely difficult to pre-define contextual value conflict. These issues will be discussed in more detail in Chapter 5.

3.4.4.2 Cross context variations in Attitudinal Ambiguity Tolerance

Finally, the study aimed to investigate variations in responses to the AAT scale across the two situations in which the scale was completed. First, a series of three repeated measures t-tests

were conducted to determine whether the subjects as a whole scored higher or lower on the second occasion. The t-tests were not significant for AAT_Christian ($t = -.78$, $df = 97$, $p = .437$), AAT_non-Christian ($t = -.64$, $df = 97$, $p = .526$) and AAT_Political ($t = -.85$, $df = 97$, $p = .396$).

To explore variations across situation at the level of individuals, difference scores for each AAT index were computed by subtracting the AAT scores in the second situation from the scores for the first situation, i.e.:

- $AAT_Chr = AAT_Chr\ 1 - AAT_Chr\ 2$ (Mean = $-.051$, SD = $.64$)
- $AAT_nChr = AAT_nChr\ 1 - AAT_nChr\ 2$ (Mean = $-.044$, SD = $.68$)
- $AAT_Pol = AAT_Pol\ 1 - AAT_Pol\ 2$ (Mean = $.119$, SD = 1.38)

All three indices of difference scores were roughly normally distributed. High scores indicate a decrease in AAT from the first to the second administration (i.e. from rag to Bible study), whereas low scores indicated an increase from the first to the second administration.

Polynomial regression analysis was performed to determine whether the difference scores were related to the indices of ideological conservatism and commitment. The procedure was similar to the polynomial analysis outlined above. Each difference index was used as the dependent variable in a series of separate regression equations that tested for linear and quadratic associations with the ideological conservatism and commitment indices. The results are reported in Table 3.10.

Table 3.10. Linear and quadratic effects for AAT difference indices.

	AAT_Chr	AAT_nChr
R_Objective	$\underline{\text{Lin}} \beta = -0.3$ $t = -2.97, p = .004$	
R_Subjective		$\underline{\text{Lin}} \beta = -0.32$ $t = -2.32, p = .02$ $\underline{\text{Quad}} \beta = -0.52$ $t = -3.7, p = .0004$
Pol_Interest	$\underline{\text{Lin}} \beta = 0.84$ $t = 2.1, p = .03$ $\underline{\text{Quad}} \beta = -0.91$ $t = -2.36, p = .02$	
Conservatism		$\underline{\text{Lin}} \beta = 1.63$ $t = 2.78, p = .007$ $\underline{\text{Quad}} \beta = -1.44$ $t = -2.46, p = .02$

Except for the single relationship between conservatism and AAT_nChr, all the remaining associations were between difference scores and ideological commitment variables. It appears as though changes in expressing ambiguity tolerance were related to ideological commitment, rather than attitudinal beliefs. This may explain the conflicting and contradictory findings of the previous section.

The negative linear relationship between objective aspects of religiosity and AAT_Chr indicated that for more religious subjects the AAT scores towards Christian authorities increased from the first (rag) to the second (Bible study) occasion. The reason for this trend is not clear. However, in line with the view of Cialdini and colleagues (1976) it is hypothesised that these subjects might have taken an unambiguous stance at rag on an issue that is important to them.

The negative linear relationship between the subjective aspects of religiosity and AAT_nChr, indicates that more religious subjects were more tolerant of ambiguity at Bible study, suggesting that the level of contextual value conflict regarding non-Christian authorities increased from the first (rag) to the second (Bible study) occasion. This finding is against the anticipated trend predicted by the researcher and is very difficult to explain. The hypothesis around taking an unambiguous stance in the face of opposing views is once again postulated as

a possible explanation. However, it is not clear why increased levels of contextual value conflict were experienced at Bible study.

The positive linear effect between Pol_Interest and AAT_Chr indicate that there was a decrease from rag to Bible study in ambiguity tolerance towards Christian authorities by subjects who were highly interested in politics. It is postulated that their views on these authorities were similar to those of the religious context, resulting in reduced levels of conflict in that context (Durrheim, 1995, 1998). Furthermore, in line with the audience effect (Billig, 1996), these individuals may have attempted at rag to emphasise common ground with others in order to persuade them of their views more easily. This would have resulted in higher levels of value conflict in that context. Also, in line with the concept of accountability (Tetlock, 1993, 1994), the presence of the researcher, whose views were unknown to them, may have increased the levels of contextual value conflict at rag as well.

Conservative subjects also expressed less AAT towards non-Christian authorities at Bible study. This decrease in contextual value conflict from the first (rag) to the second (Bible study) occasion is evident in the positive linear effect between Conservatism and AAT_non-Christian. It is hypothesised that, at Bible study, the outgroup is clearly defined, resulting in less contextual value conflict. The views of these subjects seem to have been in accordance with the contextual norms, further lowering the level of contextual value conflict.

The negative quadratic effects show that, in addition to the linear effects, the regression line curves in such a manner that both high and low scoring subjects show increased tolerance of ambiguity in the second situation, whereas moderate scoring subjects show less tolerance of ambiguity on the second occasion. This trend was evidenced towards both Christian and non-Christian authorities. These findings are again in agreement with context theory (Sidanius, 1985, 1986; Sidanius & Lau, 1989) only to the extent that moderates showed less ambiguity tolerance than extremists. However the findings do not support this theory, as Sidanius never predicted any shifts across context.

From the above findings it is clear that the variability in correlations across both context and content domain was much more complex than that anticipated by the researcher. This will be

discussed in more detail in Chapter 5 when the results of both the university and the church study are examined together.

An important limitation of the above interpretations is the post-hoc nature of these explanations. This will also be discussed in more detail in Chapter 5.

The second study, the church study, will be discussed next, in Chapter 4.

Chapter 4

STUDY 2: THE CHURCH STUDY

The chapter introduces the objectives, expectations and rationale for the church study. The sample, context and procedure of the study are then discussed. Measures are not discussed again, as they are similar to those used in the university study. The chapter concludes with the results of the church study as well as a brief attempt at understanding these theoretically.

4.1 Objectives, Expectations and Rationale

Study 2, the church study, was a replication of the university study, using a different sample group from a different context. The main objective was an attempt to obtain additional support for the findings in the university sample.

It was decided to use a more mature sample that would be representative of broader society in terms of variables such as age and life experience. In accordance with the researcher's personal understanding of the church situation it was assumed that this context would provide different kinds of value conflict to its subjects. These properties will be discussed below under "Context".

The church study provided a context that was different from that of the university study. In terms of societal perception the university discussed in Chapter 3 is regarded as a more conservative milieu than the environment of the church discussed below (see "Context" below for reasons). It was therefore felt that studies in these two environments might yield interesting and different results and be illuminating for the overall results.

The first expectation is that expressions of tolerance of ambiguity will vary across context. It is anticipated that the same individuals will express different levels of ambiguity tolerance in two different contexts, according to the level of value conflict within the particular situation, therefore supporting the view that this construct can no longer be seen as a stable personality trait. The higher the level of conflict between norms and personal beliefs in the context, the

higher would be the level of tolerance of ambiguity exhibited. The lower the level of conflict in the context, the lower would be the level of tolerance of ambiguity.

A further expectation is that expressions of tolerance of ambiguity would vary across content domain. This would again support evidence against the notion of regarding tolerance of ambiguity as a stable personality trait. Again, the higher the level of conflict between norms and personal beliefs in a particular content domain, the higher would be the level of tolerance of ambiguity. The lower the level of conflict in a content domain, the lower would be the level of tolerance of ambiguity. However, high levels of value conflict in one content domain would not necessarily be related with high levels of conflict in another content domain.

Another expectation was that no single invariant correlation would be evident between ideological conservatism and tolerance of ambiguity. The variable of ideological commitment was omitted for this sample. Reasons for this will be discussed under “Measures”.

As in the university study, the prediction was again that all the expected variations would be related to the level of contextual value conflict experienced by subjects in a particular situation and content domain. It is assumed that the two different situations used in the church study (i.e. that of the Alpha course and that of the home environment) would present different levels of value conflict to different subjects. If the normative beliefs of a specific situation were supportive of their beliefs regarding a certain issue, subjects would experience less contextual value conflict and therefore would express higher levels of intolerance of ambiguity. If the normative beliefs of a situation, however, stood in opposition to their views subjects would experience higher levels of value conflict, resulting in higher levels of tolerance of ambiguity.

4.2 Method

4.2.1 Sample

The sample was selected from members of two church congregations who were attending a course, the Alpha course, run by a minister active in both congregations on a regular basis. The

members of one congregation are predominantly Afrikaans speaking. While the members of the other congregation are predominantly English speaking, several other languages are also represented in this congregation (however, not in the particular sample used). These languages include German, Dutch, Greek, Afrikaans and Zulu, to name but a few. As was the case in the university study, the same sample had to complete a slightly different questionnaire in two different situations.

Of the initial 70 questionnaires handed out, only 30 could be used. Factors influencing the exclusion of some questionnaires were (1) missing values in one or both questionnaires, (2) incomplete sections in either of the questionnaires, but mainly (3) missing questionnaires that were not returned from the second administration at home.

This particular sample was chosen as subjects could be accessed in an overtly religious, "ideological" context of which some of the properties were known to the researcher. It was also possible to access the participants in their homes. It was assumed that the home environment would serve as a more neutral context in which different levels of value conflict would be experienced.

The final sample was homogenous, consisting of 30 white subjects (17 females and 13 males). There were 21 Afrikaans-speaking subjects and 9 English-speaking ones. The age of the respondents ranged from 28 to 72, with a mean of 48.3 years ($SD = 10.36$).

4.2.2 Context

It is important to place the two congregations that were used in the broader context of South African churches in general and Dutch Reformed churches in particular. Traditionally the Dutch Reformed Church (DRC) in South Africa has been seen as an institution that sanctioned the apartheid philosophy during its reign, and as such has always been regarded as one of the more conservative denominations in the country.

One of the congregations used in this study, the *Andrew Murray Dutch Reformed Church, Johannesburg*, however, has never endorsed the apartheid regime. It was established in 1960

and since then its doors were always open to all population groups. Not only that. It has also provided a "spiritual home" for many couples who come from different Christian denominations, e.g. where one partner is Dutch Reformed and the other Catholic or Presbyterian, etc. A culture of inclusion and tolerance for views and values different from, or even in conflict with one's own, is thus prevalent in this environment.

Due to its adversarial stance with regard to both race and denomination, this congregation was traditionally regarded as an outcast by the governing powers within the DRC structures. Ministers associated with this church were also treated with the same contempt and were, to a large extent, often ostracised by these powers.

A while before the changeover to a new, democratic South Africa, the DRC in the country re-examined its views on apartheid. The church has subsequently repented its direct and indirect contribution to the hardships experienced by so many people as a result of the apartheid philosophy. It decided to open its doors to all people and to embrace a philosophy of inclusion and reconciliation. This has not been an easy process for many people within the church. Their beliefs, previously regarded by them to be justified by scripture, suddenly had to be challenged, re-examined and adjusted. They have had to look for guidance regarding these matters. In this sense, the once rejected congregation of *Andrew Murray* has suddenly become a leader that could offer much to be learned from. What has been the norm in this congregation for years had finally started spreading to the wider DRC in South Africa.

A few years ago an Afrikaans-speaking congregation, the *Nederduits Gereformeerde Kerk, Johannesburg-Noord*, amalgamated with *Andrew Murray*. The congregations are, in essence, one but separate services - one in Afrikaans and the other in English - are held.

Although the ideology from the pulpit at present is not overtly political in nature, themes of forgiveness and reconciliation do appear regularly. A "Beyers Naude"-type ideology of inclusion and non-racism did feature more strongly before the dawning of the post-apartheid era. However, even then the ideology tried to remain as "non-political" as possible, in an attempt to avoid getting drawn into the political battlefield of the time. Instead it concentrated more on broader, universal values that commented indirectly on the status quo.

On the basis of the above-mentioned reasons this church context is socially perceived to be more liberal than the university context used in the first study. Different levels of contextual value conflict were therefore anticipated, especially as far as political authorities are concerned.

It is important to note that, although the church is seen to have liberal views with regard to political matters and other *Christian* denominations, this is not extended to non-Christian ideologies such as Buddhism. These other religions are, to a certain extent, seen to stand in opposition to Christianity. These congregations also support the missionary work of the wider Dutch Reformed Church that focuses on proselytising.

The contexts were manipulated to represent an overtly "ideological" context and another more "neutral" context in which different dynamics would be evident. It was assumed that the religious forum of the Alpha course could represent the overtly ideological context, whereas the context of home could represent a more neutral context. The Alpha course is well known in churches of different denominations and it deals with different aspects of the Christian faith and their practical applications in daily life. These two contexts were anticipated to present subjects with different levels of contextual value conflict in the different content domains, which would lead to subjects expressing various levels of tolerance/ intolerance of ambiguity across the different contexts.

It was anticipated that, in the "ideological" context, subjects whose views are in agreement with the norms of the church might exhibit high levels of intolerance of ambiguity. Those who disagree with the contextual norms may express high levels of tolerance of ambiguity in this context. In the more neutral context at home it was predicted that this effect would not be present.

The prediction was that in the context of the Alpha course subjects who scored high on subtle racism, authoritarianism and conservatism would be more tolerant of ambiguity towards (liberal) political authorities as the contextual norms of the church might challenge their own values and views on these matters.

4.2.3 Procedure

The same sample completed a slightly different questionnaire (see Appendices E and F for the English version of these questionnaires) in two different contexts.

The main thrust of the church study was to provide extra support for certain findings in the university sample. Due to time constraints for the completion of the questionnaire in the church context, as well as a reluctance to send out a lengthy questionnaire for completion at home, the questionnaires that were used for the church sample were reduced to the essential elements. The shortened questionnaire was also used in an attempt to maximise response rate. The sections that were omitted were those concerning ideological commitment. The correlations between indices of ideological conservatism and ideological commitment could therefore not be examined.

In order to reduce the influence of carry over effects the two questionnaires were administered 24 weeks apart. Furthermore, the one scale (AAT) was also shortened on the second occasion due to time constraint concerns, and to maximise response rates.

The subjects were requested to provide their names for the purpose of matching the two questionnaires. Due to the lack of anonymity, assurance of complete confidentiality was given to subjects on both occasions. This was given both verbally by the researcher and in a covering paragraph at the beginning of both questionnaires, which stated that, for this sample, only a research assistant (and not the researcher) would have access to the information in the questionnaires. It was stated that the researcher would only have access to the data in statistical format. This procedure was followed since the researcher herself is a member of one of the congregations.

The first questionnaire was completed voluntarily by 70 subjects immediately after one of the sessions of the Alpha Course. Subjects were informed that the purpose of the study was to determine their personal and social beliefs and opinions regarding a number of issues in a religious context. A request was made for them not to discuss their responses with other participants, to complete the questionnaire without pondering too much on each question, and to

complete it without referring to previous responses in the same questionnaire. The average time to complete the questionnaires ranged between 25 and 35 minutes. The researcher was present throughout the completion of the first questionnaire, and procedures were standardised.

The second questionnaire was completed voluntarily by participants at home. Questionnaires, together with a covering letter were sent to participants who then completed these at home. They were requested to complete and return them within seven days of receiving it. Subjects were informed that the purpose of the study was to determine their personal and social beliefs and opinions regarding a number of issues in the home context. A request was made for them not to discuss their responses with others, e.g. family members, to complete the questionnaire without pondering too much on each question, and to complete it without referring to previous responses in the same questionnaire. Subjects returned the questionnaires to the researcher in sealed envelopes in order to ensure confidentiality. They were also assured of confidentiality both verbally and in a covering paragraph at the beginning of each questionnaire. In addition, a covering letter was sent with the second questionnaire, stating that a research assistant would enter the data on computer, as this would ensure complete anonymity from the researcher. It was stated that the assistant would use a numerical code unknown to the researcher for the purpose of matching the two questionnaires and, as such the identity of the participants would remain anonymous. The reason for sending this letter was because the researcher had detected a certain level of reluctance from some members to submit their questionnaires. This reluctance seemed to have stemmed from a fear of having their (private) attitudes revealed to a member of their congregation. For personal reasons of their own, the thought of this possibility seemed to have been somewhat intimidating, uncomfortable or even unacceptable to some members. Of the 70 questionnaires that were sent out, only 41 were returned, of which 11 could not be used due to incomplete sections or missing values.

4.3 Measures

The same measures, with the exception of those regarding ideological commitment, which were used in the university study, were used in the church study. This was done firstly due to time constraints with regards the completion of the questionnaire in the church context. Furthermore,

the researcher was reluctant to send out a lengthy questionnaire for completion at home since it was hoped that a shortened questionnaire would maximise the response rate.

4.4 Results

Predictions were once again that the level of value conflict posed by a particular context or content domain would influence the expression of tolerance/intolerance of ambiguity. It is anticipated that for higher conflict, subjects would be more tolerant of ambiguity, while for less conflict, subjects would be less tolerant of ambiguity.

The results that were yielded in the church study are seen against the backdrop of these expectations and will be discussed below. Where relevant, similarities and differences with the university study will be mentioned briefly.

4.4.1 Scale Statistics

The sample was too small to yield reliable factor structures for each of the scales, so the items that proved to be reliable indicators of each construct in the university study were used in the measures for the church study. Cronbach alpha coefficients were computed for each measure to ensure that it has sufficient internal consistency. See Table 4.1.

Table 4.1. Summary of statistics measures used in Study 2

Measure	Alpha	Number of items	Mean	SD
Conservatism	.81	12	19.76	4.57
RWA	.74	5	25.25	8.76
SR_Equal	.72	5	18.82	8.73
SR_Control	.77	4	17.93	8.3
AAT_Chr1	.80	4	.92	.93
AAT_Chr2	.50	4	.53	.45
AAT_nChr1	.79	3	1.16	.85
AAT_nChr2	.71	3	1.09	.77
AAT_Pol1	.73	6	2.8	1.11
AAT_Pol2	.62	6	2.8	1.02

4.4.2 Correlational analysis

4.4.2.1 *Correlations between indices of ideological conservatism*

As mentioned in chapter 3, scores on measures of conservatism, subtle racism and right-wing authoritarianism were expected to correlate strongly (Adorno *et al.*, 1950; Altemeyer, 1981).

The pattern of correlations reported in Table 4.2 shows no correlation between the two indices of Subtle Racism and Conservatism, or between the RWA scale and the Conservatism scale. Conservatism for this group therefore seems to be unrelated to racism and authoritarianism. This finding differs from that of the university study, where weak correlations between subtle racism and conservatism were evident. This may be an indication that conservatism in the rapidly changing context of South Africa is a complex construct with intricate and changing correlations emerging between the different dimensions of ideological conservatism. However, it must be noted that the sample groups in this study were very small, and that no conclusive statements can be made about the results.

The RWA scale correlated with one aspect of racism, SR_Control, but not with SR_Equal. It suggests that for authoritarian subjects the taboo on unequal treatment still seems to hold sway. However, the idea of giving up political and economic control is not so easy to accept. It is perhaps not surprising that some correlation was found between authoritarianism and subtle racism (regarding political and economic control), as authoritarianism was the foundation of political ideology of apartheid in South Africa (Foster, 1991a). This finding is dissimilar from that of the university study, where no correlation between right-wing authoritarianism and subtle racism was found. This suggests some uncertainty regarding the validity of the RWA scale in a changing South Africa.

The correlation between self-rated liberalism-conservatism and both indices of the Subtle Racism scale suggests that it is with reference to their opinions about both racial equality, as well as political and economic control, that the subjects of the church study judged their conservatism. The finding in the university study was different in that self-rating correlated only with the control factor of subtle racism.

A strong correlation was found between the two indices of racism, suggesting that for this particular group of subjects these factors were closely linked. This correlation was not evident in the university study.

Table 4.2. Intercorrelations between indices of ideological conservatism.

	SR_Control	SR_Equal	RWA	Conservatism
SR_Equal	.59***			
RWA	.42*	.20		
Conservatism	.01	.20	.14	
Self-rating	.47*	.54**	.06	.31

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

4.4.2.2 Correlations between AAT indices

Scores on each of the AAT indices were correlated to determine whether 1) AAT scores for each domain of authority were stable across time, and 2) AAT scores for different domains of authority were correlated.

The matrix in Table 4.3 shows that AAT responses are not generalised across content domains. This result is against the expectations of Adorno and colleagues, and in fact, against the predictions of all personality-based theories, as none of these predict such variability.

The first and second set of scores correlated significantly only on AAT_nChr and AAT_Pol, suggesting that these measures were similarly patterned across context. It also suggests that the measures have test-retest reliability. Contrary to expectations no correlation was found between AAT_Chr on the two occasions, but this may be due to the low internal consistency of the AAT_Chr2.

In the church sample none of the domains (AAT_Chr, AAT_nChr and AAT_Pol) were correlated with each other. It seems to suggest that for this group there is a clear distinction between these three domains, and each is evaluated differently from the other. This finding differs from that of the university study, where students evaluated non-Christian and political authorities in a similar way.

Table 4.3. Correlations between AAT indices

	AAT_ Chr 1	AAT_ Chr 2	AAT_ nChr 1	AAT_ nChr 2	AAT_ Pol 1
AAT_Chr 2	-.08				
AAT_nChr 1	.37*	-.08			
AAT_nChr 2	.24	.03	.58***		
AAT_Pol 1	.17	.13	.29	.19	
AAT_Pol 2	-.21	.23	.15	.33	.60***

Note. *** $p < .001$; ** $p < .01$; * $p < .05$

4.4.3 Regression Analysis

4.4.3.1 The relationship between ideological conservatism and tolerance of ambiguity

Polynomial regression analysis was performed to determine whether tolerance of attitudinal ambiguity scores were related to the indices of ideological conservatism. Each index of AAT – except AAT_Chr2, which had low internal consistency – was used as the dependent variable in a series of separate regression equations, which tested for linear and quadratic associations with the ideological conservatism indices. As in the university study, the linear term was entered first in each equation, followed by the quadratic term (cf. Cohen & Cohen, 1983).

Table 4.4. Linear and quadratic effects for AAT indices.

	AAT_ nChr 1	AAT_ nChr 2	AAT_ Pol 1
SR_Equality	<u>Lin</u> $\beta = -1.51$ t = -2.39, p=.02		
RWA		<u>Lin</u> $\beta = 2.43$ t = 2.59, p=.02 <u>Quad</u> $\beta = -2.44$ t = -2.61, p=.02	<u>Lin</u> $\beta = 1.99$ t = 2.06, p<.05 <u>Quad</u> $\beta = -2.09$ t = -2.16, p=.04

The negative linear relationship between SR_Equal and AAT_nChr indicated that subjects who scored high on subtle racism (equality) were intolerant of ambiguity towards non-Christian authorities at church. This trend suggests that lower levels of value conflict may have been experienced at the Alpha course and is in line with predictions made around contextual value conflict. It is hypothesised that their views on these authorities are similar to those preached by the church, hence the lowered levels of conflict there.

The positive linear relationship between RWA and AAT_nChr2 indicates that highly authoritarian subjects were more tolerant of non-Christian authorities at home. This finding was not predicted by the researcher and is difficult to explain. One hypothesis is that their personal views regarding non-Christian authorities may be less conservative than those of the church. At home, where subjects would perhaps allow themselves to question the authority of the church, they may be more in touch with the discrepancy between their views and those of the church, perhaps in the form of self-argumentation (Billig, 1996).

The positive linear relationship between RWA and Pol1 indicated that subjects who scored high on authoritarianism were more tolerant of ambiguity towards liberal political authorities at the Alpha course. This relationship seems to suggest that they experienced higher conflict at the Alpha course around political conservatism. As such it is in accordance with predictions regarding contextual value conflict, since it suggests that the views of these subjects were different from those normative in the church context. It is postulated that, because the church is

a *religious* authority they might feel free to question the church on *political* but not on *religious* matters. This would explain the different patterns of association between the content domain of political authorities and that of non-Christian authorities. These results seem to provide evidence for variability across content domain.

The negative quadratic associations between RWA and AAT_nChr2 as well as RWA and AAT_Pol1 indicate that the point of inflection was a maximum value, suggesting that moderates expressed higher levels of attitudinal ambiguity tolerance than extremists did. These findings are in agreement with Rokeach's extremism theory. However, they do not support his theory, as these associations varied across content domain and were not stable, generalisable or invariant.

4.4.3.2 Cross context variations in Attitudinal Ambiguity Tolerance

The study aimed to investigate variations in responses to the AAT scale across the two situations in which the scale was completed. First, a series of three repeated measures t-tests were conducted to determine whether the subject group as a whole scored higher or lower on the second occasion. The t-test AAT_Christian was significant ($t = 2.07$, $df = 29$, $p = .048$), indicating that the sample showed less tolerance of attitudinal ambiguity on the second occasion ($M = .53$) than on the first ($M = .92$). The differences were not significant for AAT_non-Christian ($t = .55$, $df = 29$, $p = .59$) and AAT_Political ($t = -.42$, $df = 29$, $p = .68$). Although the significant difference may be attributed to the change in context, it may also be attributed to the low internal consistency of the AAT_Chr2 index.

To explore variations across situation at the level of individuals, difference scores for each AAT index were computed by subtracting the AAT scores in the second situation from the scores for the first situation, i.e.:

- $AAT_Chr = AAT_Chr\ 1 - AAT_Chr\ 2$ (Mean = .38, SD = 1.02)
- $AAT_nChr = AAT_nChr\ 1 - AAT_nChr\ 2$ (Mean = .07, SD = .72)
- $AAT_Pol = AAT_Pol\ 1 - AAT_Pol\ 2$ (Mean = -.08, SD = .99)

All three indices of difference scores were roughly normally distributed. High scores indicate a decrease in AAT scores from the first (church) to the second (home) occasion.

Polynomial regression analysis was performed to determine whether the difference scores were related to the indices of ideological conservatism and commitment. The procedure was similar to the polynomial analysis outlined above. Each difference index was used as the dependent variable in a series of separate regression equations that tested for linear and quadratic associations with the ideological conservatism and commitment indices. The results are reported in Table 4.5.

Table 4.5. Linear and quadratic effects for AAT difference indices.

	AAT_nChr	AAT_Pol
RWA		Lin $\beta = 2.29$ $t = 2.41, p = .02$ Quad $\beta = -2.26$ $t = -2.38, p = .02$
SR_Control	Lin $\beta = -1.69$ $t = -2.29, p = .03$ Quad $\beta = 1.74$ $t = 2.36, p = .03$	
SR_Equality	Lin $\beta = -1.77$ $t = -2.88, p = .01$ Quad $\beta = 1.69$ $t = 2.74, p = .01$	

The relationship between the Subtle Racism indices and AAT_nChr includes negative linear and positive quadratic effects.

The negative linear effect indicated that subjects who scored low on the Subtle Racism indices were more intolerant of ambiguity towards non-Christian authorities at home. This finding is difficult to explain. It is postulated that the views of these non-racist subjects regarding non-Christian authorities may be less conservative than those held by the church. This resulted in higher levels of value conflict at the Alpha course, since the contextual norms and their personal beliefs on this issue were different. In the absence of contradictory views, these subjects experienced lower levels of contextual value conflict in the home environment.

The positive quadratic effects show that, in addition to the linear effects, the regression line curves in such a manner that both high and low scoring subjects show decreased tolerance of ambiguity in the home situation, whereas moderate scoring subjects show more tolerance of ambiguity at home. This result is partially similar to the prediction of Rokeach's extremism theory, but because he does not anticipate that the trend will change across context, the findings do not support this theory.

The relationship between RWA and AAT-Pol includes a positive linear effect and a negative quadratic effect. The positive linear effect indicated that high scoring authoritarian subjects were more intolerant of ambiguity at home. This indicates that higher levels of value conflict were experienced at the Alpha course where liberal political authorities are supposed to be tolerated. This is in line with contextual value conflict predictions since it was anticipated that their political views would be conservative. This resulted in heightened value conflict at the Alpha course, where the political norms are liberal.

The negative quadratic effects show that, in addition to the linear effects, the regression line curves in such a manner that both high and low scoring subjects show increased tolerance of ambiguity at home, whereas moderate scoring subjects show less tolerance of ambiguity in the home environment. Insofar as moderates were more intolerant of ambiguity than extremists, there is partial support for context theory. However, since variations across content domain and context were not predicted findings do not support this theory.

These results have suggested that it is also important to distinguish between various contexts, as both context and content domain seem to mediate the shape as well as the direction of the variant relationships. However, the researcher did not predict this complexity of variability. Possible reasons for this will be explored in Chapter 5 in an attempt to extrapolate relevant theoretical underpinnings.

Linked to the difficulty of the unpredicted complexity of variability is one of the most important limitations of the study, namely the post-hoc nature of the explanations given, especially for those results that were not anticipated. This will also be discussed in more detail in Chapter 5.

Chapter 5

DISCUSSION OF RESULTS

5.1 Summary of aims and expectations

The study was designed mainly to investigate the variability of tolerance of ambiguity across different contexts and different content domains. Furthermore, it examined the variable nature of the relationship between tolerance of ambiguity and ideological belief. It also explored the mediating role that ideological commitment plays between tolerance of ambiguity and ideological belief in certain content domains.

Predictions were that where contextual norms were similar to the personal values of subjects, lower levels of value conflict would be present. If, however, contextual norms and personal values differed, subjects were expected to experience higher levels of value conflict and express this in increased ambiguity tolerance or ambivalence.

It is important to note that the assumptions about the nature of the different contexts and the anticipated levels of value conflict were a simplification of the actual situations measured. Also, it proved to be extremely difficult to pre-define the specific contextual value conflict. These aspects will be discussed under “Limitations”.

5.2 Major Findings

5.2.1 Measures of ideological conservatism and ideological commitment

Two expectations from previous studies regarding the different measures of ideological conservatism and ideological commitment were contested by the results of the current study. The first concerned the dimensionality of two of the scales that were used, while the other was related to the anticipated intercorrelations between the indices of ideological conservatism.

Through factor analysis it was discovered that, unlike previous studies (Duckitt, 1991, 1993; Durrheim, 1995, 1998), subtle racism no longer performed as a unidimensional construct. Instead it was two-dimensional. The strong correlation between these in the church group was absent for the university sample. Also in contrast to previous studies (Durrheim, 1995; Rohrbaugh & Jessor, 1975; Nicholas & Durrheim, 1996), religiosity no longer presented as unidimensional. Instead, through factor analysis two different indices were uncovered. A shortcoming of this study is the omission of this scale for the second sample group (i.e., the church sample), as such findings may have assisted in clarifying the matter. Possible explanations for both these results were discussed in chapter 3.

The current findings question the validity of these scales in contemporary South African society. However, due to the small sample size no conclusive statements can be made and it is recommended that future research attempt to clarify these issues.

As mentioned earlier, previous research suggested that all the measures of ideological belief would be related to each other.

Following research guided by the theory of authoritarianism the constructs of conservatism, right-wing authoritarianism and racism are all expected to be related as they form a cluster of beliefs about the world that is a manifestation of a personality trait (Adorno, *et al.*, 1950). Rokeach (1960) and Sidanius (1984) also expect correlations between these aspects, since their theories are personality-based. Tetlock hypothesises ideological monism for conservative ideology, and since conservatism, authoritarianism and racism implicate similar conflicting values he would anticipate a correlation.

These assumptions about intercorrelations between the different measures were confirmed in previous studies by, among others, Duckitt (1989, 1993) and Ray (1988) who found a strong correlation between racial attitudes and right-wing authoritarianism.

Factor analyses of the different indices of ideological conservatism in the current study, however, showed that the whole battery of measures no longer operated as a coherent unit.

Weak correlations between the two indices of subtle racism and that of conservatism were found in the university study but not in the church study. Some correlation between the control factor of subtle racism and right-wing authoritarianism was evident in the church sample but not the university sample. No correlation between right-wing authoritarianism and conservatism was found in either sample group.

The social meanings attached to each dimension of ideological conservatism seem to have played a significant role in the development of new patterns of associations, and disprove assumptions from the personality-based theories that all the measures of ideological conservatism would be unidimensional and intercorrelated. The findings also generate support for the assumption that complex correlations are emerging in a changing context. As such the findings of Durrheim (1995, 1998) are reiterated here. The "simple" picture that the personality-based theorists like Adorno and colleagues as well as others had proposed has become complicated, in that ideological conservatism is now seen as a multidimensional, complex construct with different patterns of intercorrelations between the various dimensions thereof.

5.2.2 Properties of the AAT scale

Results pertaining to the AAT scale, which was both valid and reliable, confirmed certain important findings from Durrheim's (1995, 1998) studies. Apart from AAT_Chr in the church study both test-retest and internal consistency statistics indicated that the scale could be considered reliable. Construct validity was evident as the scale measures tolerance of ambiguity in accordance with Frenkel-Brunswik's (1949) original definition, as it acknowledges both the evaluative and social aspects of the concept. It also does not confound cognitive style and content as it separates these concepts methodologically. Furthermore, it distinguished between the levels of ambiguity tolerance across different content domains. For instance, through factor analysis different dimensions of the scale, namely the political, Christian and non-Christian domains were identified. The findings also showed that subjects' responses to the scale were meaningfully related to the content domains of the different authorities. These findings contradict the stance that tolerance of ambiguity is a generalised stable personality trait.

Scores on each of the AAT indices were correlated to ascertain whether stability across time

was evident for each domain of authority. Results from the university sample show that the first and second set of scores on each of the measures (Christian, non-Christian and political) correlated significantly, but for the church sample this was only evident for non-Christian and political authority figures.

An analysis was then made to determine whether AAT scores for different domains of authority were interrelated, or whether each domain was evaluated independently. In the university sample tolerance of ambiguity towards non-Christian and political authorities was related, but no such correlation existed with Christian authorities. A clear distinction between all three domains was found in the church study. Attitudinal ambiguity tolerance responses therefore do not seem to be generalised across content domain.

These findings were basically similar to those found in Durrheim's (1995, 1998) studies. They have specific implications for our understanding of cognitive style and in particular the concept of tolerance of ambiguity. The variability that was found indicates that tolerance of ambiguity can no longer be seen as a generalised personality trait that is stable across content domain and context (Adorno, *et al.*, 1950; Rokeach, 1960; Sidanius, 1988a, 1988b). It can also not be seen, in accordance with the cognitive-centred approach, as a learned cognitive disposition (Schroder *et al.*, 1967). Instead, because it tends to be much more variable across context and content domain, a fluid understanding of tolerance of ambiguity as *performance in context* needs to be adopted.

5.2.3 Ambiguity tolerance, ideological conservatism and ideological commitment

An important focus of the studies was to examine the patterns of association between ambiguity tolerance, ideological conservatism and ideological commitment. The studies also investigated whether ideological conservatism could be a predictor of ambiguity tolerance.

Both Rokeach and Sidanius postulated that ideological commitment would play a role in mediating tolerance / intolerance of ambiguity and proposed that this aspect ought to be related to personality. The other theorists do not comment on this issue.

As mentioned in chapters 3 and 4, correlations between tolerance of ambiguity and the measures of both ideological conservatism and ideological commitment were only examined in the university study. Correlations were such that attitudinal ambiguity tolerance scores were only related to particular indices of ideological commitment. A distinction between the religious and political domains was found in that ideological commitment, rather than specific religious contents or ideologies, was related to tolerance of ambiguity in the religious domain (specifically towards Christian authorities). Two exceptions in the university study included a single relationship between conservatism and tolerance of ambiguity towards non-Christian authorities, and one between subtle racism (control) and ambiguity tolerance towards the same authorities. In contrast to these findings ideological positioning in terms of conservatism or liberalism mediated attitudinal ambiguity tolerance towards the political domain in the university study. These results provide significant confirmation of similar findings from Durrheim's (1995) research. Since the mediating role of ideological commitment was not generalised across different content domains (thus not personality-based), the findings do not support the theories of either Rokeach or Sidanius. This, however, stood in contrast to findings from the church sample, which showed that changes in ambiguity tolerance were related to attitudinal beliefs, in particular authoritarianism, but also in some cases subtle racism. This occurred in both the political and the religious domains, but in the latter it was restricted to non-Christian authorities. It must be remembered, though, that ideological commitment was not investigated in the church study.

In terms of ideological conservatism, authoritarianism in the church sample was an important predictor of tolerance of ambiguity, with subtle racism playing an insignificant role. This could be understood in that racism is taboo in contemporary South Africa, but authoritarian values of submission and conformism are still somewhat prevalent. Foster (1991a) stated that this is not surprising, since authoritarianism was the cornerstone of the apartheid philosophy. However, the role that authoritarianism plays in mediating both the shape and the direction of the relationship varied across content domain and context, suggesting that context does play a role in the variable relationship between tolerance of ambiguity and ideological conservatism. This seemed to have been linked to the meaning a particular content domain had within the context at hand, and the accompanying levels of value conflict that this had caused. For instance, it seemed as though the political domain was perceived to be a domain that could be contested within the context of the Alpha course, whereas that was not so for the religious domain.

The findings regarding the form of the relationship between ambiguity tolerance and ideological conservatism reiterated those of Durrheim (1995, 1998). No single relationship between attitudinal conservatism and tolerance of ambiguity was evident across different content domains of conservatism. Instead, results for both the university and the church study yielded several positive and negative linear and quadratic associations between these constructs.

In contrast to the predictions of the four major theories discussed in chapter 2, this supports the notion that there is no isomorphic link between specific ideological beliefs and tolerance of ambiguity. It also contradicts the generalised personality status of tolerance of ambiguity. None of the theories predicted as much variability as was found in the two studies undertaken by the researcher.

Despite this, limited support for all the theories was found and these will be summarised below. (For interpretations of the various relationships mentioned in the following discussion, refer to the relevant sections in chapters 3 and 4).

Research supportive of the theory of authoritarianism stated that cognitive style is a personality trait and that the relationship between ideological belief and cognitive style would be stable across context and content domain. It predicted that authoritarians would characteristically use a rigid cognitive style, such as intolerance of ambiguity. One correlation from the university that supported the idea of conservative subjects being intolerant of ambiguity included the negative linear relationship between R_Subjective and AAT_Chr1 (Table 3.9), while the negative linear relationship between SR_Equal and AAT_nChr1 (Table 4.4) in the church study also partially supported this. Due to the fact that neither of these trends was consistent across content domain, they did not confirm the theory of authoritarianism.

The theory of extremism also suggested that there is a stable, invariant relationship between ideological belief and cognitive style. However, it proposed that the content of the belief (i.e. liberalism or conservatism) is not as important a determining factor of cognitive style as the extremism thereof. Accordingly, both liberalism and conservatism would be characterised by intolerance of ambiguity, while moderates would be tolerant of ambiguity. Some support was

evident in the university study, namely the negative linear relationship between R_Subjective and AAT_Chr1, as well as the positive linear relationship between R_Objective and AAT_Chr2 (Table 3.9). In the church study the negative linear relationship between SR_Equal and AAT_nChr1 (Table 4.4) provided further support. All the negative quadratic equations in Table 3.9 (university study) and Table 4.4 (church study) are also in partial agreement with Rokeach's extremism theory. However, none of these verify Rokeach's (1960) theory, as these associations varied across content domain and were not stable, generalisable or invariant.

Evidence against the two theories (Adorno *et al.*, 1950; Rokeach, 1960) was found in both the university and the church sample where highly authoritarian subjects were tolerant of ambiguity towards political authorities in the "ideological" context (i.e. Bible study and the Alpha course).

Context theory suggested that moderates would use a rigid cognitive style such as intolerance of ambiguity while extremists would be flexible in their thinking, and therefore tolerant of ambiguity. The university study conformed to this prediction in the positive linear relationships between SR_Control and AAT_nChr1, Conservatism and AAT_nChr1, RWA and AAT-Pol2 as well as SR_Control and AAT_Pol1 respectively (see Table 3.9). In the church study the positive linear relationships between RWA and AAT_nChr2 and RWA and Pol1, as well as the negative linear effect between SR and AAT_nChr2 (Table 4.4) also was in line with the prediction. However, these results do not support the theory of Sidanius, as the associations varied across content domain and were not stable, generalisable or invariant.

Value pluralism vacillated between, on the one hand, linking monistic ideologies with intolerance of ambiguity and on the other hand, proposing no direct link between a certain kind of ideology and cognitive style, as the latter will depend on the value conflict that the subject is confronted with. The value conflict proposed by Tetlock's earlier studies in particular was, however, linked to the monistic/pluralistic nature of the issue at hand, and therefore more limited than that of contextual value conflict.

The predictions of value pluralism were of variability. There was evidence for this in the findings, but the partial personality basis was not confirmed. Furthermore, even though Tetlock had predicted variability, he never anticipated such wide diversity of associations

which is contrary to his theory.

Billig (1985, 1996; Billig *et al.*, 1988) sees value conflict as rooted in context, and suggests that the style of arguing and thinking that individuals adopt is dependent upon the value conflict associated with thinking about particular ideological contents in a particular context. Durrheim (1995) takes this idea one step further, suggesting that the nature of a particular context would present people with a specific level of contextual value conflict, depending on whether the norms of that situation oppose or support their views regarding the issue at hand. As such he postulates that no isomorphic link exists between cognitive style (e.g. intolerance of ambiguity) and a specific type of ideology or personality. He moves completely away from the concept that certain ideologies would attract people with a particular cognitive style and regards cognitive style as being fluid in nature.

The position of contextual value conflict predicts that tolerance of ambiguity would be related to the level of contextual value conflict that subjects experience. The higher the conflict, the higher the level of ambiguity tolerance. Conversely, the lower the conflict, the higher would be the level of intolerance of ambiguity (or the lower would be the level of ambiguity tolerance). An examination of the results as they relate to these predictions revealed that some confirmation for this theory was found. However, the support is by no means conclusive. Examples that provide verification include the positive linear relationships in the university study between SR_Control and AAT_Pol1, SR_Control and AAT-nChr1 as well as Conservatism and AAT_nChr (Table 3.9). All these relationships confirmed that the context of rag which presented these subjects with norms different to their own, raised contextual value conflict for them. Moreover, accountability to others with different views further raised the value conflict. Also, in the church study confirmation was found in the negative linear relationship between SR_Equal and AAT_nChr and the positive linear relationship between RWA and Pol1 (Table 4.4). Since it was postulated that the contextual norms would differ from the values of these subjects in these content domains, raised levels of conflict (and ambiguity tolerance) were predicted, while in the absence of contextual value conflict subjects would express intolerance of ambiguity.

However, a number of findings were not supportive of the predictions of contextual value

conflict. These comprise the negative linear relationship between R_Subjective and AAT_Chr1, the positive linear relationship between R_Objective and AAT_Chr2 as well as the positive linear relationship between RWA and AAT-Pol2 (Table 3.9) in the university study. In the church study the positive linear relationship between RWA and AAT_nChr also went against the anticipated trend. These findings suggest that, for certain content domains, high levels of contextual value conflict occurred in unexpected situations. For instance, at home, where no contextual value conflict was predicted, authoritarian subjects expressed tolerance of ambiguity and implicitly experienced high levels of value conflict at home. The reasons for these contradictory results are not clear.

When trying to understand why certain domains of ambiguity tolerance only correlate to certain aspects of attitudinal conservatism, it seems as though the relationship is partially influenced by differential meanings that subjects attach to the various dimensions of conservatism. Only those dimensions that are salient and meaningful to a particular domain mediate the associations. The multiple patterns of association between the conservatism indices and the different indices of ambiguity tolerance should be understood in the light of the influence of contextual value conflict, as well as the meaning attached to the specific content domain.

It is therefore clear that no single theory, especially none of the personality-based theories, were able to explain the findings adequately. However, the theory that seems to have come closest to predicting the results was the extended contextual value conflict theory that predicted the greatest level of variability of all the theories. Although this was the case, it is apparent that it has its limitations.

5.2.4 Cross context variations in Attitudinal Ambiguity Tolerance

Cross-content variation was examined to investigate contextual differences in value conflict and the impact of these on shifting expressions of ambiguity tolerance. This analysis was undertaken to challenge the stance that tolerance of ambiguity is a stable, generalised personality trait. Instead it attempted to find evidence in favour of the fluid nature of cognitive style as *performance in context*.

Despite the fact that there were no significant t-test differences in scores of the first and the second occasions, results for both sample groups yielded cross-context variations at an individual level. These individual contextual shifts were then examined in more detail.

The only position that predicted cross context variations in tolerance of ambiguity was that of contextual value conflict. Inherent in this stance is the idea that each context within which people function, would present them with different levels of contextual value conflict. This would be dependent on the contextual norms of the given situation, and its relationship to the views and values of the people involved (see chapters 3 and 4 for a more extensive account of the predictions).

The positive linear effects between Pol_Interest and AAT_Chr, as well as Conservatism and AAT_non-Christian (Table 3.10) indicate that there was a decrease from the first (rag) to the second (Bible study) occasion in ambiguity tolerance. The positive linear effect between RWA and AAT_Pol in the church study also suggested a decrease in ambiguity tolerance from the first (the Alpha course) to the second (home) occasion.

The negative linear relationships between R_Objective and AAT_Chr as well as R_Subjective and AAT_nChr (Table 3.10) indicated increased tolerance of ambiguity from the first (rag) to the second (Bible study) occasion. The positive linear relationship between RWA and AAT_nChr2 (Table 4.5) in the church study also indicates an increase in ambiguity tolerance from the first (the Alpha course) to the second (home) occasion. To the extent that these results showed changes in ambiguity tolerance across context, they confirm the predictions of contextual value conflict. However, the directions of these changes were not all predicted, and this makes interpretations quite difficult. A *post hoc* approach to interpreting the results therefore had to be followed. This is one of the major limitations of the study.

From the above findings it is clear that the variability in correlations across both context and content domain is more complex than that anticipated by the researcher. These results have confirmed the importance of distinguishing clearly between various contexts and content domains, as both of these seem to mediate the shape and direction of the relationships.

5.3 Limitations of the research

The results found in the two studies were more varied than that anticipated by the researcher. No consistency was evident in the shape or direction of the relationship between variables. This makes interpretation difficult. Although some support for the contextual value theory was evident, it was by no means conclusive. The researcher has attempted to make sense of the findings which contradict the anticipated associations, but these are only tentative explanations because of their *post hoc* nature.

What is apparent from the two studies is that the context did not present subjects consistently with the kind of contextual value conflict that was predicted. For instance, the home environment in the church study seems to have presented high levels of value conflict for authoritarian subjects as far as non-Christian authorities were concerned, while the context of rag in the university study presented highly religious student with low levels of conflict concerning Christian authorities. This suggests that there were uncontrolled variables and underlying processes other than those related to contextual value conflict that informed the cognitive style used by subjects. The *post hoc* explanations used in attempting to understand these results are a serious shortfall of this study.

The findings also indicate that it is extremely difficult to pre-define and quantify the nature of contextual value conflict. One of the main reasons for this is that, at present, no independent measurement exists that could quantify the level of contextual value conflict at play in various different situations. Different instruments measuring personal individual beliefs and contextual normative beliefs need to be developed, as these may further assist in measuring the level of contextual value conflict implicit in a given context.

Another area requiring clarification that would assist an understanding of underlying processes in attitudinal ambiguity tolerance is that of accountability (Tetlock, 1983a, 1993, 1994). No independent instrument for quantifying the level of accountability exists. This is a crucial area to focus on in future studies.

In the absence of such instruments introducing qualitative investigations of these aspects may

have assisted the researcher to determine more precisely what were the nature of the underlying dynamics. However, both time and practical constraints prohibited the researcher from introducing this aspect into the research. The time constraints involved interviewing all the subjects, while there were practical constraints in tracing the participants, particularly those in the university sample, as the final interpretations of the results took place a long time after the collection of data.

Another limitation was the omission of the measures of ideological commitment in the church study, because this may have shed some light on the two-dimensional nature of the religiosity scale as occurred in the university study. It could also have clarified the mediating role of ideological commitment in relation to tolerance of ambiguity in the church sample. It is recommended that future studies explore this matter in more depth.

Furthermore, the role of the researcher as data collector in the church study may have played a stronger role than anticipated, and that her presence might account for some of the contradictory findings of that particular sample group. This hypothesis is based on informal feedback from a few subjects long after the execution of the study, as well as the subjects' perception that the researcher, in her position as deacon of *Andrew Murray*, was seen as an authority figure representing the views of the church. If a member of a particular sample group or context undertakes future studies, attempts should be made to control more carefully for the role this may play in influencing the results.

It is also important to consider that, due to the small sample size in both the university and the church study (but especially in the latter), the results of these studies should be treated with caution.

Finally, it may be hypothesised that the attempts to control the contextual variability in these two studies were overridden by the greater variability introduced in the rapidly changing South African situation. For example, within the time span between the administration of the two different sets of questionnaires within each study, changing external realities may have been prevalent in the rapidly moving South African situations. It is therefore suggested that the design of repeat studies should include explicit attempts to control for these variables.

5.4 Recommendations for future studies

Following the limitations the most important recommendation for future studies is that an attempt should be made to determine more carefully and more precisely the nature and level of contextual value conflict and accountability in the different situations used in each study. One way of addressing this issue would be to develop independent measuring instruments to pre-define and quantify these variables. Also, developing distinct measuring instruments for personal individual beliefs on the one hand, and contextual normative beliefs on the other, may provide additional assistance to determine the level of contextual value conflict implicit in a given context. Furthermore, future studies could also make use of controlled experiments, which manipulate levels of value conflict in order to address these limitations.

Another suggestion, in the absence of such instruments, would be to consider a qualitative analysis into the nature of these variables. Future studies should also explore the nature of each context much more carefully by building into its design better controls for various variables they might feel may skew results.

Studies using the Subtle Racism scale should explore whether more than one dimension on this scale would be evident again. Researchers should perhaps also consider extending the existing scale to investigate the possible existence of more than two factors. Including in the measure issues of, for instance, job equality or sport rather than just generalised equality might achieve this. Also, some measure of acceptability of social integration might be useful.

Considering that ideological commitment was not explored in the church study, and that the sample group for the university study was too small to make conclusive statements about its mediating role in relation to tolerance of ambiguity, it is suggested that future studies re-examine this matter. It would also be important to examine the Religiosity scale in contexts with varying degrees of overt and covert religious underpinning to see whether the degree of religiosity implicit in a particular context does play a role in producing more than one dimension on this scale.

5.5 Conclusion

The AAT scale developed by Durrheim (1995) was used as measuring instrument for attitudinal ambiguity tolerance. The scale was found to be valid and reliable, and different dimensions similar to those found in Durrheim's study were evidenced. These included the political and religious domains.

Although the multiple relations, including positive and negative, linear and quadratic correlations between the different variables in both the university and the church study cover predictions from all of the personality-based theories, no single one of them could explain the intricate variations across context and content domain. For reasons mentioned previously, the position that came closest to providing a more comprehensive theoretical understanding for the results seems to be that of contextual value conflict.

Results have indicated that it is important to distinguish between the various dimensions of ideological conservatism and those of attitudinal ambiguity tolerance, as the shape and direction of the relationship between these depend on both these aspects.

The investigation into the mediating role of ideological belief and ideological commitment indicated that there is no isomorphic link between cognitive style and cognitive content. Although several results in the church study (and two in the university study) showed that ambiguity tolerance towards non-Christian authorities was also related to some indices of ideological belief they do not confirm the predictions of the personality-based theories, as these correlations were not stable and generalisable. Furthermore, despite some contradictions, results from the university study provided convincing support for Durrheim's findings that ideological belief was mainly related to ambivalent evaluation in the political domain.

Consequently the personality based-theories were refuted by the variability in both the form and the direction of the relationship between ideological belief, ideological commitment and cognitive style. These findings are in line with those of Durrheim (1995, 1998) and suggest that a different theoretical framework, which would be able to accommodate the multidimensionality of constructs and multiply patterned associations, needs to be introduced.

It seems as though the relationship between the style and content of cognition is manifest only when a meaningful connection exists between a particular set of beliefs and a specific content domain with its specific domain of authority. Furthermore, the level of contextual value conflict that was to an extent linked to the meanings attached to these variables seemed to have influenced the tolerance of ambiguity evidenced in the findings. The presence or absence of normative support for individual beliefs of subjects in a given context, influenced the level of contextual value conflict for subjects and this in turn resulted in the various levels of tolerance of ambiguity that subjects expressed. Context therefore did play a mediating role in attitudinal ambiguity tolerance of subjects.

Contextual value conflict has managed better to account for the vast variability in patterns of associations more extensively than any of the four major theories discussed in chapter 2. Nevertheless it also cannot provide a satisfactory explanation for all the relationships. This suggests that contextual value conflict is difficult to pre-define and that future studies need to address this shortfall by finding ways of determining more efficiently the nature of contextual value conflict inherent in different situations. Overall, therefore, even though the contextual value conflict theory was not confirmed without contradiction, some evidence in its favour was found

Despite the fact that underlying dynamics and processes informing the multiple patterns of association were not always clear, results do seem to confirm that a fluid understanding of tolerance of ambiguity as *performance in context* needs to be adopted.

APPENDIX A

First Questionnaire: University (English)

The following is a study of what university students think and feel about a number of important social and personal questions. We have tried to cover many different and opposing points of view; no matter what your answer to the various questions, you can be sure that many people will feel the same as you

As this questionnaire is the first component of a two-part study, you are requested to provide your name. You are assured of the STRICTEST CONFIDENTIALITY. The questionnaire will be read by THE RESEARCHER ONLY. This is a scientific investigation independent of all political, religious and other ideological persuasions. You are encouraged to answer all questions openly. Thank you for your co-operation. Please answer all questions.

Section 1

Please give the following details.

1) Surname _____

2) First names _____

3) Sex

Male	
Female	

4) Age (in years) _____

5) Year of study (e.g. 1,2,
Hons, etc.) _____

6) Field of study (e.g. BSc,
Hons in Maths, etc.) _____

7) Do you participate in any religious activities (e.g. Bible Study, Transcendental Meditation, etc.) on campus or elsewhere?

State Yes or No: _____

8) Do you participate in any political activities on campus, or are you a member of any political movement (e.g. Cosas, NP Youth Branch, etc.) on campus or elsewhere?

State Yes or No: _____

Section 2

Please answer the following by placing a cross [X] in the appropriate boxes.

1) Which Political Party would you most likely and least likely support? (select only one party in the "most likely" column and one party in the "least likely" column).

	Most Likely	Least Likely
National Party (NP)		
African National Congress (ANC)		
Afrikaner Weerstandsbeweging (AWB)		
Inkatha Freedom Party (IFP)		
South African Communist Party (SACP)		
Democratic Party (DP)		
Azanian Peoples Organisation (AZAPO)		
Conservative Party (CP)		
Pan African Congress (PAC)		
Freedom Front (FF)		
United Democratic Movement (UDM)		
Other (specify):		

2) To which so-called "Population Group" do you belong?

Black	
White	
Coloured	
Indian	
Asian	
Other (specify):	

3) What is your Home Language?

Afrikaans	
English	
Other (specify):	

4) How would you evaluate your political opinions? (choose one of the following categories).

Very Liberal	
Liberal	
Slightly Liberal	
Moderate	
Slightly Conservative	
Conservative	
Very Conservative	

5) How strongly do you hold your political views?

Not at all										Very strongly
1	2	3	4	5	6	7	8	9	10	

6) How much interest do you take in politics (e.g. reading political news, discussing political issues)?

Very little										Very much
1	2	3	4	5	6	7	8	9	10	

7) How much interest did you take in the negotiation process which took place just before the 1994 elections (e.g., following news reports, discussions with friends, etc.)?

Very little										Very much
1	2	3	4	5	6	7	8	9	10	

8) Would you have taken part in demonstrations and strikes if you felt the negotiation process was biased or unfair?

Most certainly										Certainly not
1	2	3	4	5	6	7	8	9	10	

Section 3

1) How often have you attended religious services in the last year?

Never	
Once or twice	
Three to six times a year	
Once or twice a month	
Once a week	
Two or three times a week	

2) Which of the following best describes your practice of prayer or religious mediation?

Prayer is a regular part of my daily life.	
I usually pray during times of stress or need, but rarely at any other time.	
I pray only during formal ceremonies.	
Prayer has little importance in my life.	
I never pray.	

3) When you have a serious problem, how often do you take religious advice or teaching into consideration?

Almost always	
Usually	
Sometimes	
Rarely	
Never	

4) How much influence would you say that religion has on the way that you choose to act and the way that you choose to spend your time each day?

No influence	
A small influence	
A fair amount of influence	
A large influence	

5) During the past year, how often have you experienced a feeling of religious reverence or devotion?

Almost daily	
Frequently	
Sometimes	
Rarely	
Never	

6) Do you agree with the following statement? Religion gives me a great amount of comfort and security in life.

Strongly disagree	
Disagree	
Uncertain	
Agree	
Strongly agree	

7) Which one of the following statements comes closest to your belief about God?

I am sure that God really exists and is active in my life.	
Although I sometimes question God's existence, I do believe in God's existence and that God knows me as a person.	
I don't know if there is a personal God, but I do believe in a higher power of some kind.	
I don't know if there is a personal God or a higher power of some kind, and I'm not sure that I will ever know.	
I don't believe in a personal God or a higher power.	

8) Which one of the following statements comes closest to your belief about life after death?

I believe in a personal life after death, a soul existing as a specific individual.	
I believe in a soul existing after death as part of a universal spirit.	
I believe in life after death of some kind, but I really don't know what it would be like.	
I don't know whether there is any kind of life after death, and I don't know if I will ever know.	
I don't believe in any kind of life after death.	

Section 4

It is assumed here that your attitude toward any given authority is a mixture of both likes (respect) and dislikes (disrespect), given different situations. Give two scores for each of the following authorities or authority figures, one indicating the level that you sometimes like (respect) the authority, the other the level of your possible dislike (disrespect).
Please circle the appropriate figures. Give your immediate reaction. The best answer is your personal opinion.

Example 1: If on occasions you truly respect the American government and support their decisions, but on other occasions you hold them in contempt. Then you could answer:

The American Government

Like/respect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Dislike/disrespect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Example 2: If you respect Prime Minister John Major completely and support him at all times, then you may answer:

Prime Minister John Major

Like/respect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Dislike/disrespect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

1) The South African Government

Like/respect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Dislike/disrespect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

2) Buddha

Like/respect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Dislike/disrespect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

3) The Courts

Like/respect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Dislike/disrespect
Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

4) Inkatha Freedom Party (IFP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
5) The family			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
6) God			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
7) Chris Hani			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
8) The Conservative Party (CP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
9) Your Church			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
10) Bishop Desmond Tutu			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
11) President Nelson Mandela			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
12) The Pope			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
13) Doctors			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

14) Jesus Christ			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
15) Parents			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
16) The Afrikaner Weerstandsbeweging (AWB)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
17) Friends			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
18) Personal Conscience			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
19) The Army			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
20) Your Church Leader			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
21) Science			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
22) The Democratic Party (DP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
23) The University			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

24) Your School			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
25) The South African Communist Party (SACP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
26) Mohammed			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
27) Lawyers			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
28) The African National Congress (ANC)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
29) The Bible			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
30) F. W. de Klerk			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
31) The Law			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
32) The Police			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
33) Umkhonto weSizwe			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

34) The Organization of African Unity (OAU)			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
35) The United Nations (UN)			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
36) The Koran			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
37) Your School Principal			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
38) Eugene Terreblanche			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
39) Your Teacher			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
40) Your Professors			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
41) Your Partner/Spouse			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
42) Your Own Values			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
43) Mangosuthu Buthelezi			
Like/respect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much
Dislike/disrespect			
Not at all	0	1 2 3 4 5 6 7 8 9 10	Very much

44) The Talmud

Like/respect												
Not at all	0	1	2	3	4	5	6	7	8	9	10	Very much
Dislike/disrespect												
Not at all	0	1	2	3	4	5	6	7	8	9	10	Very much

45) Your Cultural tradition

Like/respect												
Not at all	0	1	2	3	4	5	6	7	8	9	10	Very much
Dislike/disrespect												
Not at all	0	1	2	3	4	5	6	7	8	9	10	Very much

SECTION 5

Please answer the following questions by indicating your reactions to each statement by placing a cross [X] in the appropriate cell according to the following scale:

VSD if you *very strongly disagree* with the statement.

SD if you *strongly disagree* with the statement.

MD if you *moderately disagree* with the statement.

sD if you *slightly disagree* with the statement.

sA if you *slightly agree* with the statement.

MA if you *moderately agree* with the statement.

SA if you *strongly agree* with the statement.

VSA if you *very strongly agree* with the statement.

If you feel precisely neutral about the statement, place a cross in the cell marked with a "N".

- 1) It is always better to trust the judgement of the proper authorities in government and religion, than to listen to the noisy rabble rousers in our society who are trying to create doubt in people's minds.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 2) There is nothing immoral or sick in somebody being a homosexual.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 3) The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers if we are going to save our moral standards and preserve law and order.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 4) "Free speech" means that people should even be allowed to make speeches and write books urging the overthrow of the government.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 5) In these troubled times laws have to be enforced without mercy, especially when dealing with agitators and revolutionaries who are stirring things up.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 6) Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 7) It is best to treat dissenters with leniency and an open mind, since new ideas are the lifeblood of progressive change.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 8) The biggest threat to our freedom comes from the communists and their kind, who are out to destroy religion, ridicule patriotism, corrupt the youth, and in general undermine our whole way of life.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 9) The way things are going in this country, it is going to take a lot of "strong medicine" to straiten out the troublemakers, criminals and perverts.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 10) It is important to protect fully the rights of radicals and deviants.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 11) Rules about being "well-mannered" and respectable are chains from the past which we should question very thoroughly before accepting.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 12) Once the government leaders and the authorities condemn the dangerous elements in our society, it will be the duty of every patriotic citizen to help stamp out the rot that is poisoning our country from within.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 13) The self-righteous "forces of law and order" threaten freedom in our country a lot more than most of the groups they claim are "radical" and "godless".

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

- 14) Students in high school and at university must be encouraged to challenge their parents' ways, confront established authorities, and in general criticize the customs and traditions of our society.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

THANKS ONCE AGAIN!!

APPENDIX B

First Questionnaire: University Study (Afrikaans)

Hierdie is 'n navorsingsprojek wat universiteitstude­nte se menings en gevoelens omtrent 'n aantal belangrike sosiale en persoonlike vrae ondersoek. Ons het probeer om soveel moontlik verskillende en teenstrydige standpunte in te sluit. Wees verseker: dit maak nie saak wat jou antwoorde op die verskillende vrae is nie, daar sal definitief baie mense wees wat net soos jy voel!

Aangesien hierdie vraelys die eerste deel van 'n tweeledige projek is, vra ons jou om asseblief jou naam te verskaf. Ons wil dit beklemtoon dat die inligting ABSOLUUT KONFIDENSIEEL IS! NIEMAND BEHALWE DIE NAVORSER sal toegang hê tot die inligting wat jy hierin verskaf nie.

Die projek is 'n wetenskaplike ondersoek wat onafhanklik is van alle politieke, religieuse en ander ideologiese oortuigings. Jy word aangemoedig om alle vrae so openhartig moontlik te beantwoord. Voltooi asseblief AL die vrae op die vraelys. Baie dankie vir jou deelname en samewerking. Ons waardeer dit baie!!

Afdeling 1

Verskaf asseblief die volgende besonderhede.

1) Van _____

2) Voornaam _____

3) Geslag

Manlik	
Vroulik	

4) Ouderdom (in jare) _____

5) Universiteitsjaar
(bv. 1, 2, honneurs) _____

6) Studierigting (bv.
BA Tale, BSc, ens.) _____

7) Neem jy deel aan enige religieuse bedrywighede (bv. Bybelstudie, Transendentele Meditasie, ens.) op kampus of êrens anders?

Sê Ja of Nee: _____

8) Neem jy deel aan enige politieke bedrywighede op kampus, of is jy lid van enige politieke beweging (soos bv. Cosas, NP-Jeugtak, ens.) op kampus of êrens anders?

Sê Ja of Nee: _____

Afdeling 2

Beantwoord asseblief die volgende deur 'n kruisie [X] in die toepaslike blokkie te trek.

- 1) Watter politieke party sal jy mees waarskynlik en mins waarskynlik ondersteun? Kies slegs een party in die kolom vir "mees waarskynlik" en een party in die kolom vir "mins waarskynlik".

	Mees Waar- skynlik	Mins Waar- skynlik
Nasionale Party (NP)		
African National Congress (ANC)		
Afrikaner Weerstandsbeweging (AWB)		
Inkatha Vryheidsparty (IVP)		
Suid-Afrikaanse Kommunistiese Party (SAKP)		
Azanian People's Organization (AZAPO)		
Demokratiese Party (DP)		
Konserwatiewe Party (KP)		
Vryheidsfront (VF)		
United Democratic Movement (UDM)		
Pan African Congress (PAC)		
Ander (spesifiseer):		

- 2) Aan watter sogenaamde "Bevolkingsgroep" behoort jy?

Swart	
Wit	
Kleurling	
Indiër	
Asiër	
Ander (spesifiseer):	

- 3) Wat is jou huistaal?

Afrikaans	
Engels	
Ander (spesifiseer):	

- 4) Hoe sou jy jou politieke oortuigings beskryf? (kies een van die volgende kategorieë).

Baie Liberaal	
Liberaal	
Effens Liberaal	
Gematig	
Effens Konserwatief	
Konserwatief	
Baie Konserwatief	

5) Hoe sterk staan jy by jou politieke sieninge?

Gladnie

Baie sterk

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

6) Hoe geïnteresseerd is jy in die politiek (bv. lees jy politieke nuus, bespreek jy politieke sake)?

Baie min

Baie intens

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

7) Hoe geïnteresseerd was jy in die onderhandelingsproses (bv. nuusberigte gevolg, besprekings met vriende, ens.) net voor die 1994 verkiesings?

Baie min

Baie intens

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

8) Sou jy deelgeneem het aan demonstrasies en stakings indien jy gevoel het dat die onderhandelingsproses onregverdig of partydig was?

Baie beslis

Baie beslis nie

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Afdeling 3

1) Hoe gereeld gedurende die afgelope jaar het jy religieuse bedrywighede/byeenkomste (bv. kerkdienste) bygewoon?

Nooit	
Een of twee keer	
Drie tot ses keer per jaar	
Een of twee keer per maand	
Een keer per week	
Twee or drie keer per week	

- 2) Watter een van die volgende stellings beskryf jou deelname aan gebed of religieuse meditasie die beste?

Gebed is 'n gereelde deel van my daaglikse lewe.	
Ek bid gewoonlik tydens tye van spanning of nood, maar selde andersins.	
Ek bid slegs gedurende formele byeenkomste.	
Gebed is van min belang in my lewe.	
Ek bid nooit nie.	

- 3) Hoe gereeld raadpleeg jy religieuse raad en leiding as jy 'n ernstige probleem ondervind?

Amper altyd	
Gewoonlik	
Soms	
Selde	
Nooit	

- 4) Hoe sterk beïnvloed religie jou daaglikse optrede en lewenswyse?

Geen invloed	
'n Klein invloed	
'n Taamlike invloed	
'n Groot invloed	

- 5) Hoe gereeld het jy die afgelope jaar 'n gevoel van religieuse ontsag of toewyding ervaar?

Amper elke dag	
Gereeld	
Soms	
Selde	
Nooit	

- 6) Stem jy saam met die volgende stelling? Religie bied groot troos en sekuriteit in my lewe.

Verskil sterk	
Verskil	
Onseker	
Stem saam	
Stem sterk saam	

- 7) Watter een van die volgende stellings beskryf jou geloof ten opsigte van God die beste?

Ek is seker dat God werklik bestaan en aktief betrokke is in my lewe.	
Alhoewel ek God se bestaan soms bevraagteken, glo ek in God se bestaan en dat God my persoonlik ken.	
Ek weet nie of daar 'n persoonlike God is nie, maar ek glo in een of ander tipe Hoër Mag.	
Ek weet nie of daar 'n persoonlike God of een of ander Hoër Mag is nie, en ek is nie seker of ek ooit sal weet nie.	
Ek glo nie aan 'n persoonlike God of in een of ander Hoër Mag nie.	

8) Watter een van die volgende stellings beskryf jou geloof ten opsigte van die lewe na die dood die beste?

Ek glo aan 'n persoonlike lewe na die dood, aan 'n wese wat as spesifieke individu bestaan.	
Ek glo aan 'n wese wat na die dood as universele gees bestaan.	
Ek glo aan een of ander tipe lewe na die dood maar ek weet werklik nie watter vorm dit sal aanneem nie.	
Ek weet nie of daar enige soort lewe na die dood is nie, en ek weet nie of ek ooit sal weet nie.	
Ek glo nie aan enige tipe lewe na die dood nie.	

Afdeling 4

Ons veronderstel hier dat jou houding teenoor enige gegewe gesag/owerheid 'n mengsel van voorkeure (respek) en afkere (minagting) is, afhangende van verskillende situasies. Verskaf twee tellings vir elk van die volgende owerhede of gesagsfigure. Die een moet aandui tot watter mate jy die gesag soms respekteer, en die ander tot watter mate jy dit moontlik kan minag.

Omkring asseblief die toepaslike syfers. Gee asseblief jou onmiddellike reaksie. Daar is geen regte of verkeerde antwoorde nie. Die beste antwoord is jou persoonlike mening!

Voorbeeld 1: As jy die Amerikaanse regering onder sekere omstandighede respekteer en hulle besluite ondersteun, maar hulle op ander geleenthede minag, sou jy soos volg antwoord:

Die Amerikaanse Regering

Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie

Voorbeeld 2: As jy Eerste Minister John Major ten volle respekteer en hom te alle tye ondersteun, sou jy soos volg antwoord:

Eerste Minister John Major

Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie

1) Die Suid-Afrikaanse Regering

Goedkeur/Respekteer

 Gladnie 0 1 2 3 4 5 6 7 8 9 10

Baie

Afkeur/Minag

 Gladnie 0 1 2 3 4 5 6 7 8 9 10

Baie

2) Boeddha			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
3) Die Howe			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
4) Inkatha Vryheidsparty (IVP)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
5) Die gesin			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
6) God			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
7) Chris Hani			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
8) Die Koserwatiewe Party (KP)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
9) Jou Kerk			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
10) Biskop Desmond Tutu			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
11) President Nelson Mandela			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie

12) Die Pous			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
13) Dokters			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
14) Jesus Christus			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
15) Ouers			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
16) Die Afrikaner Weerstandsbeweging (AWB)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
17) Vriende			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
18) Persoonlike Gewete			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
19) Die Weermag			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
20) Jou Kerkleier			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
21) Wetenskap			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie

22) Die Demokratiese Party (DP)		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
23) Die Universiteit		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
24) Jou Skool		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
25) Die Suid-Afrikaanse Kommunistiese Party (SAKP)		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
26) Mohammed		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
27) Regsgeleerdes		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
28) Die African National Congress (ANC)		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
29) Die Bybel		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
30) F. W. de Klerk		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie
31) Die Wet		
Goedkeur/Respekteer		
Gladnie	0 1 2 3 4 5 6 7 8 9 10	Baie
Afkeur/Minag		
Glad nie	0 1 2 3 4 5 6 7 8 9 10	Baie

32) Die Polisiemag			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
33) Umkhonto weSizwe (MK)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
34) Die Organisasie van Afrika Eenheid (OAE)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
35) Die Verenigde Volke (VV)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
36) Die Koran			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
37) Jou Skoolhoof			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
38) Eugene Terreblanche			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
39) Jou Onderwysers			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
40) Jou Professore/Dosente			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
41) Jou Eggenoot (Vaste vriend/vriendin)			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie

42) Jou Eie Waardes			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
43) Mangosuthu Buthelezi			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
44) Die Talmoed			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie
45) Jou Kulturele Tradisies			
Goedkeur/Respekteer			
Gladnie	0 1 2 3 4 5 6 7 8 9 10		Baie
Afkeur/Minag			
Glad nie	0 1 2 3 4 5 6 7 8 9 10		Baie

Afdeling 5

Beantwoord asseblief die volgende vrae deur jou reaksie tot elk van die stellings aan te dui deur 'n kruisie [X] in die toepaslike blokkie te trek. Gebruik asseblief die volgende skaal:

- BSV as jy *baie sterk verskil* van die stelling.
- SV as jy *sterk verskil* van die stelling.
- RV as jy *redelik verskil* van die stelling.
- EV as jy *effens verskil* van die stelling.
- ES as jy *effens saamstem* met die stelling.
- RS as jy *redelik saamstem* met die stelling.
- SS as jy *sterk saamstem* met die stelling.
- BSS as jy *baie sterk saamstem* met die stelling.

As jy heeltemal neutraal voel oor die stelling, trek 'n kruisie in die blokkie waarin daar 'n "N" is.

1) Dit is altyd beter om die oordeel van die aangewese gesagsfigure in religie en die regering te vertrou, as om te luister na die raserige opstokers in ons samelewing wat net twyfel in mense se gemoedere wil saai.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

2) Daar is niks immoreels of "sieks" aan iemand wat homoseksueel is nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

3) Die feite oor misdad, seksuele onsedelikheid en die onlangse openbare wanorde, dui alles daarop dat ons baie strenger moet optree teen afwykende groepe en rusverstoorders indien ons ons morele standaarde wil red, en wet en orde wil handhaaf.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

4) "Vryheid van spraak" beteken dat mense selfs toegelaat moet word om toesprake te hou en boeke te skryf wat die

omverwerping van die regering aanpor.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 5) In hierdie moeilike tye moet wette genadeloos afgedwing word, veral op revolusionêres en oproeriges.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 6) Jongmense kry soms rebelse idees, maar namate hulle ouer word, behoort hulle dit te oorkom en tot bedaring te kom.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 7) Dit is beter om afgewekenes (mense wat nie met die meerderheid saamstem nie) sagkens en met 'n oop gemoed te hanteer, aangesien nuwe idees die lewensaar van progressiewe verandering is.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 8) Die grootste bedreiging vir ons vryheid kom van die kommuniste en soortgelyke tipes, want hulle is slegs daarop uit om religie te vernietig, patriotisme belaglik te maak, die jeug te verlei en ons hele lewenswyse te ondermyn.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 9) Met die huidige stand van sake gaan hierdie land 'n groot dosis "sterk medisyne" benodig om die rusverstoorders, kriminele en perverte te orden en te beheer.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 10) Dit is belangrik om die regte van radikales en afgewekenes ("deviants") ten volle te beskerm.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 11) Reëls rondom "goeie maniere" en fatsoenlikheid is kettings van die verlede wat ons baie deeglik behoort te bevraagteken alvorens ons dit aanvaar.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 12) Sodra die staatsleiers en die owerhede die gevaarlike elemente in ons samelewing verdoem, sal dit die plig van elke patriotiese burger wees om die verrotting wat ons land van binne af vergiftig, uit te roei.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 13) Die eieregtige "magte van wet en orde" bedreig die vryheid in ons land baie meer as die meeste groepe wat volgens hulle "radikaal" en "goddeloos" is.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 14) Studente op hoërskool en aan die universiteit moet aangemoedig word om hulle ouers se oortuiginge te betwis, gevestigde outoriteite te konfronteer en oor die algemeen die gebruike en tradisies van ons samelewing te kritiseer.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

NOGMAALS BAIE DANKIE!

APPENDIX C

Second Questionnaire: University (English)

The following is a study of what university students think and feel about a number of important social and personal questions. We have tried to cover many different and opposing points of view; no matter what your answer to the various questions, you can be sure that many people will feel the same as you.

As this questionnaire is the second component of a two-part study, you are requested to provide your name. You are assured of the STRICTEST CONFIDENTIALITY. The questionnaire will be read by the researcher ONLY. The information obtained here will be used for research purposes ONLY.

This is a scientific investigation independent of all political, religious and other ideological persuasions. You are encouraged to answer all questions openly. Thank you for your participation. Please answer ALL questions. Your cooperation is highly appreciated.

Section 1

Please give the following details.

1) Surname _____

2) First name _____

Section 2

It is assumed here that your attitude toward any given authority is a mixture of both likes (respect) and dislikes (disrespect), given different situations. Give two scores for each of the following authorities or authority figures, one indicating the level that you sometimes like (respect) the authority, the other the level of your possible dislike (disrespect).

Please circle the appropriate figures. Give your immediate reaction. The best answer is your personal opinion.

Example 1: If on occasions you truly respect the American government and support their decisions, but on other occasions you hold them in contempt. Then you could answer:

The American Government

Like/respect

Not at all 0 1 2 3 4 5 6 7 8 9 10

Very much

Dislike/disrespect

Not at all 0 1 2 3 4 5 6 7 8 9 10

Very much

Example 2: If you respect Prime Minister John Major completely and support him at all times, then you may answer:

Prime Minister John Major

Like/respect

Not at all 0 1 2 3 4 5 6 7 8 9 10

Very much

Dislike/disrespect

Not at all 0 1 2 3 4 5 6 7 8 9 10

Very much

1) The South African Government			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
2) Buddha			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
3) The Courts			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
4) Inkatha Freedom Party (IFP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
5) The family			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
6) God			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
7) The Conservative Party (CP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
8) Your Church			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
9) Bishop Desmond Tutu			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
10) President Nelson Mandela			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

11) The Pope			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
12) Jesus Christ			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
13) Parents			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
14) The Afrikaner Weerstandsbeweging (AWB)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
15) Friends			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
16) The Army			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
17) Your Church Leader			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
18) The Democratic Party (DP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
19) The University			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
20) The South African Communist Party (SACP)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

21) Mohammed			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
22) The African National Congress (ANC)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
23) The Bible			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
24) F. W. de Klerk			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
25) The Law			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
26) The Police			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
27) Umkhonto weSizwe			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
28) The Organization of African Unity (OAU)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
29) The United Nations (UN)			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
30) The Koran			
Like/respect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much
Dislike/disrespect			
Not at all	0 1 2 3 4 5 6 7 8 9 10		Very much

- 31) Your School Principal
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
- 32) Eugene Terreblanche
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
- 33) Mangosuthu Buthelezi
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
- 34) The Talmud
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
- 35) Chris Hani
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
- 36) Doctors
 Like/respect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much
 Dislike/disrespect
 Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much

Section 3

Please answer the following questions by indicating your reactions to each statement by placing a cross [X] in the appropriate cell according to the following scale:

VSD if you *very strongly disagree* with the statement.

SD if you *strongly disagree* with the statement.

MD if you *moderately disagree* with the statement.

sD if you *slightly disagree* with the statement.

sA if you *slightly agree* with the statement.

MA if you *moderately agree* with the statement.

SA if you *strongly agree* with the statement.

VSA if you *very strongly agree* with the statement.

If you feel precisely neutral about the statement, place a cross in the cell marked with a "N".

- 1) Given the same education and opportunities, blacks should be able to perform as well as whites in any field.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

2) It would be unfair if greater expenditure on black education were to be funded by the white taxpayer.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

3) Given favourable conditions it is quite possible that black majority rule will result in a stable, prosperous and democratic South Africa.

VSD	SD	MD	SD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

4) Only equality between black and white can in the long run guarantee social peace in this country.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

5) The large-scale extension of political rights to blacks will inevitably lead to chaos.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

6) The wealth of this country is almost entirely due to the hard work and leadership of the whites.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

7) Although black living conditions should be improved, it is crucial for the stable development of the country that whites regain political control.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

8) It is important that drastic steps be taken to ensure a far more equitable division of wealth in this country.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

9) If all races mixed freely they would probably live in peace.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

10) It is almost certainly best for all concerned that interracial marriages should not be allowed.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

11) An expert who does not come up with a definite answer probably does not know too much.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

12) I would like to live in a foreign country for a while.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

13) There is really no such thing as a problem that cannot be solved.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

14) People who fit their lives into a schedule probably miss most of the joy of living.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

15) A good job is one where what is to be done and how it is to be done are always clear.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

16) Often the most interesting people are those who do not mind being different and original.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

17) People who insist on a yes or a no answer just do not know how complicated things are.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

18) In the long run it is possible to get more done by tackling small, simple problems rather than large, complicated ones.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

19) What we are used to is always preferable to what is unfamiliar.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

20) Many of our most important decisions are based upon insufficient information.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

21) A person who leads an even, regular life in which few surprises or unexpected happenings arise, really has a lot to be grateful for.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

22) I like parties where I know most of the people more than ones where all or most of the people are complete strangers.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

23) Teachers or supervisors who hand out vague assignments give a chance for one to show initiative and originality.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

24) The sooner we all acquire similar values and ideals the better.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

25) A good teacher is one who makes you wonder about your way of looking at things.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

26) It is more fun to tackle a complicated problem than to solve a simple one.

VSD	SD	MD	sD	N	sA	MA	SA	VSA
-----	----	----	----	---	----	----	----	-----

Section 4

Which of the following do you favour or believe in? Circle "Yes" or "No". If you are absolutely uncertain, circle "?". There are no right or wrong answers. Just give your FIRST REACTION. Please answer ALL questions.

- | | | | |
|---------------------------|-----|---|----|
| 1) Evolution theory | Yes | ? | No |
| 2) School uniforms | Yes | ? | No |
| 3) Striptease shows | Yes | ? | No |
| 4) Modern art | Yes | ? | No |
| 5) Military service | Yes | ? | No |
| 6) Socialism | Yes | ? | No |
| 7) Divine Law | Yes | ? | No |
| 8) Moral training | Yes | ? | No |
| 9) Suicide | Yes | ? | No |
| 10) Chaperons | Yes | ? | No |
| 11) Social welfare | Yes | ? | No |
| 12) Legalized abortion | Yes | ? | No |
| 13) Chastity | Yes | ? | No |
| 14) Female judges | Yes | ? | No |
| 15) Big Business | Yes | ? | No |
| 16) Conventional clothing | Yes | ? | No |
| 17) Nudist camps | Yes | ? | No |
| 18) Mass Action | Yes | ? | No |
| 19) Church authority | Yes | ? | No |
| 20) Disarmament | Yes | ? | No |
| 21) Censorship | Yes | ? | No |
| 22) Strict rules | Yes | ? | No |
| 23) Social Equality | Yes | ? | No |

24) Casual Living	Yes	?	No
25) Divorce	Yes	?	No
26) Religious truth	Yes	?	No
27) Legalizing dagga	Yes	?	No
28) Privatized health care	Yes	?	No
29) One person, one vote	Yes	?	No
30) Homosexuality	Yes	?	No
31) Political radicalism	Yes	?	No
32) Strikes	Yes	?	No

THANKS ONCE AGAIN!!

APPENDIX D

Second Questionnaire: University (Afrikaans)

Hierdie is 'n navorsingsprojek wat universiteitstudente se menings en gevoelens omtrent 'n aantal belangrike sosiale en persoonlike vrae ondersoek. Ons het probeer om soveel moontlik verskillende en teenstrydige standpunte in te sluit. Wees verseker: dit maak nie saak wat jou antwoorde op die verskillende vrae is nie, daar sal definitief baie mense wees wat net soos jy voel!

Aangesien hierdie vraelys die tweede deel van 'n tweekledige projek is, vra ons jou om asseblief jou naam te verskaf. Ons wil dit beklemtoon dat die inligting **ABSOLUUT KONFIDENSIEEL IS! NIEMAND BEHALWE DIE NAVORSER** sal toegang hê tot die inligting wat jy hierin verskaf nie.

Die projek is 'n wetenskaplike ondersoek wat onafhanklik is van alle politieke, religieuse en ander ideologiese oortuigings. Jy word aangemoedig om alle vrae so openhartig moontlik te beantwoord. Voltooi asseblief AL die vrae op die vraelys. Baie dankie vir jou deelname en samewerking. Ons waardeer dit baie!!

Afdeling 1

Verskaf asseblief die volgende besonderhede.

1) Van _____

2) Voornaam _____

Afdeling 2 (AAT SCALE)

PLEASE SEE APPENDIX C, SECTION 4 FOR THE ENGLISH VERSION OF THE SHORTENED FORM OF THE ATTITUDINAL AMBIGUITY TOLERANCE SCALE USED HERE. FOR A TRANSLATION OF THE ITEMS, PLEASE SEE APPENDIX B, SECTION 4.

Afdeling 3

Beantwoord asseblief die volgende vrae deur jou reaksie tot elk van die stellings aan te dui deur 'n kruisie [X] in die toepaslike blokkie te trek. Gebruik asseblief die volgende skaal:

BSV as jy *baie sterk verskil* van die stelling.

SV as jy *sterk verskil* van die stelling.

RV as jy *redelik verskil* van die stelling.

EV as jy *effens verskil* van die stelling.

ES as jy *effens saamstem* met die stelling.

RS as jy *redelik saamstem* met die stelling.

SS as jy *sterk saamstem* met die stelling.

BSS as jy *baie sterk saamstem* met die stelling.

As jy heeltemal neutraal voel oor die stelling, trek 'n kruisie in die blokkie waarin daar 'n "N" is.

- 1) Indien swartmense dieselfde opvoeding en geleenthede gebied word, behoort hulle op enige gebied net so goed soos witmense te presteer.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 2) Dit sal onregverdig wees indien groter uitgawes vir swart onderwys deur blanke belastingbetalers bemiddel moet word.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 3) Onder gunstige omstandighede is dit heel moontlik dat 'n swart meerderheidsregering Suid-Afrika tot 'n stabiele, voorspoedige en demokratiese staat kan lei.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 4) Die enigste langtermyn waarborg vir sosiale vrede in hierdie land is totale gelykheid tussen wit en swart.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 5) Die grootskaalse uitbreiding van politieke regte vir swartmense is besig om op onafwendbare chaos af te stuur.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 6) Die rykdom van hierdie land is feitlik totaal te danke aan die harde werk en leierskap van die blankes.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 7) Alhoewel swartmense se lewensomstandighede verbeter behoort te word, is dit essensieel vir die stabiele ontwikkeling van die land dat blankes politieke beheer moet herwin.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 8) Dit is belangrik dat drastiese stappe geneem moet word om die rykdom in die land meer regverdig tussen almal te verdeel.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 9) As alle rasse vrylik sou meng, sal hulle waarskynlik in vrede leef.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 10) Dit sal feitlik ongetwyfeld beter vir almal wees as gemengde huwelike nie toegelaat word nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

- 11) 'n Deskundige wat nie 'n definitiewe antwoord kan verskaf nie, weet waarskynlik nie eintlik veel nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

12) Ek sal graag vir 'n ruk in 'n vreemde land wil bly.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

13) Daar is regtig nie so iets soos 'n probleem wat nie opgelos kan word nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

14) Mense wat volgens 'n vaste skedule lewe, mis waarskynlik die meeste vreugdes van die lewe.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

15) 'n Goeie werk is dié soort waar 'n mens altyd seker is wat gedoen moet word en hoe dit gedoen moet word.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

15) Die mees interessante en stimulerende mense is dikwels die wat nie omgee om anders en oorspronklik te wees nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

17) Mense wat op 'n "ja-" of "nee"-antwoord aandring besef net nie hoe gekompliseerd dinge regtig is nie.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

18) Op die lange duur is dit moontlik om meer gedoen te kry deur klein, eenvoudige probleme te takel as om groot, gekompliseerdes aan te durf.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

19) Die bekende is altyd verkieslik bo die onbekende.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

20) Baie van ons belangrikste besluite is gebaseer op onvoldoende inligting.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

21) 'n Persoon wat 'n reëlmatige, gewone lewe lei met min verrassings of onverwagte gebeure, het regtig baie om voor dankbaar te wees.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

22) Ek hou meer van partytjies waar ek die meeste mense ken as van partytjies waar almal of amper almal totale vreemdelinge is.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

23) Onderwysers of supervisors wat vae opdragte gee, gee 'n mens die kans om inisiatief en oorspronklikheid aan die dag te lê.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

24) Hoe gouer ons almal dieselfde waardes en ideale het, hoe beter.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

25) 'n Goeie onderwyser is iemand wat jou laat wonder oor die manier waarop jy dinge benader of bekyk.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

26) Dit is lekkerder om 'n gekompliseerde probleem aan te durf as om 'n eenvoudige een op te los.

BSV	SV	RV	EV	N	ES	RS	SS	BSS
-----	----	----	----	---	----	----	----	-----

Afdeling 4

Is jy ten gunste van die elk van die volgende of glo jy daaraan? Omkring "Ja" of "Nee".
 As jy heeltemal onseker is, omkring "?" Daar is geen regte of verkeerde antwoorde nie.
 Gee net jou EERSTE REAKSIE. Beantwoord asseblief AL die vrae.

- | | | | |
|---|----|---|-----|
| 1) Die evolusieteorie | Ja | ? | Nee |
| 2) Skooluniforms | Ja | ? | Nee |
| 3) Ontkleedanse | Ja | ? | Nee |
| 4) Moderne kuns | Ja | ? | Nee |
| 5) Militêre diensplig | Ja | ? | Nee |
| 6) Sosialisme | Ja | ? | Nee |
| 7) Goddelike Reg | Ja | ? | Nee |
| 8) Morele bewusmaking/Sedeleer | Ja | ? | Nee |
| 9) Selfmoord | Ja | ? | Nee |
| 10) Chaperons (Begeleiers vir verliefdes) | Ja | ? | Nee |
| 11) Die Welsyn | Ja | ? | Nee |
| 12) Wettige aborsie | Ja | ? | Nee |
| 13) Kuisheid | Ja | ? | Nee |
| 14) Vroulike regters | Ja | ? | Nee |
| 15) Die Wêreld van Groot Sake | Ja | ? | Nee |
| 16) Konvensionele kleredrag | Ja | ? | Nee |
| 17) Nudistekampe | Ja | ? | Nee |
| 18) Massa-aksie | Ja | ? | Nee |
| 19) Kerkgesag | Ja | ? | Nee |
| 20) Ontwapening | Ja | ? | Nee |

21) Sensuur		Ja	?	Nee
22) Streng reëls		Ja	?	Nee
23) Sosiale gelykheid		Ja	?	Nee
24) 'n Onverskillige lewenstyl	Ja	?	?	Nee
25) Egskeiding		Ja	?	Nee
26) Geloofswaarheid		Ja	?	Nee
27) Wettiging van dagga		Ja	?	Nee
28) Geprivatiseerde gesondheidsorg		Ja	?	Nee
29) Een mens, een stem		Ja	?	Nee
30) Homoseksualiteit		Ja	?	Nee
31) Politieke radikalisme		Ja	?	Nee
32) Stakings		Ja	?	Nee

NOGMAALS BAIE DANKIE!

APPENDIX E

First Questionnaire: Church (English)

Thank you very much for participating in this research project. Your cooperation is highly appreciated.

The following is a study of social attitudes and opinions in a religious context. We have tried to cover many different and opposing points of view; no matter what your answer to the various questions, you can be sure that many people will feel the same as you.

You are assured of the STRICTEST CONFIDENTIALITY. The questionnaire will be read by the RESEARCH ASSISTANT ONLY and the information obtained here will be used for research purposes ONLY. The researcher herself will have access to the information ONLY IN STATISTICAL FORM. It will therefore remain anonymous.

This is a scientific investigation independent of all political, religious and other ideological persuasions. We would like to assure you that this study is in no way whatsoever subversive to your church activities or beliefs.

You are encouraged to answer all questions openly. Please answer ALL questions.

Section 1

Please give the following details.

1) Surname _____

2) First names _____

3) Sex

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

4) Age (in years) _____

5) Occupation/Field of Study _____

6) Home Address

7) Postal Address

Section 2 (AAT SCALE)

PLEASE SEE APPENDIX A, SECTION 4 FOR THE FULL VERSION OF THE ATTITUDINAL AMBIGUITY TOLERANCE SCALE THAT WAS USED HERE.

Section 3 (RWA SCALE)

PLEASE SEE APPENDIX A, SECTION 5 FOR THE RIGHT WING AUTHORITARIANISM SCALE USED HERE.

APPENDIX G

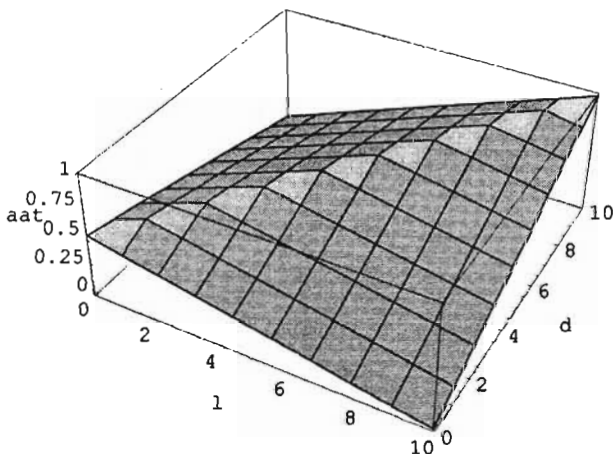
Critique and Improvement of the Formula used in the AAT Scale

Here is the table corresponding to this graph where the horizontal rows represent the values of aat as l increases from 0 to 10 and the vertical columns represent the aat values as d increases from 0 to 10.

0.5	0.33	0.25	0.2	0.17	0.14	0.13	0.11	0.1	0.091	0.083
0.33	0.75	0.6	0.5	0.43	0.37	0.33	0.3	0.27	0.25	0.23
0.25	0.6	0.83	0.71	0.62	0.56	0.5	0.45	0.42	0.38	0.36
0.2	0.5	0.71	0.88	0.78	0.7	0.64	0.58	0.54	0.5	0.47
0.17	0.43	0.62	0.78	0.9	0.82	0.75	0.69	0.64	0.6	0.56
0.14	0.37	0.56	0.7	0.82	0.92	0.85	0.79	0.73	0.69	0.65
0.13	0.33	0.5	0.64	0.75	0.85	0.93	0.87	0.81	0.76	0.72
0.11	0.3	0.45	0.58	0.69	0.79	0.87	0.94	0.88	0.83	0.79
0.1	0.27	0.42	0.54	0.64	0.73	0.81	0.88	0.94	0.89	0.85
0.091	0.25	0.38	0.5	0.6	0.69	0.76	0.83	0.89	0.95	0.9
0.083	0.23	0.36	0.47	0.56	0.65	0.72	0.79	0.85	0.9	0.95

A problem with this measure of ambiguity tolerance is that as the values of $l = d$ change from 0 to 10 the increment in aat is a huge .25 (from 0 to 1) and only .02 or less for each unit increment from 3 to 10. This is possibly an undesirable distortion of what we should expect from a measure of ambiguity tolerance. To improve the measure in a way which intuitively accords with reality the following formula for ambiguity tolerance and its associated graph is suggested.

$$aat = \frac{100 + 5(1 + d) - 15 \text{Abs}[1 - d]}{200}$$

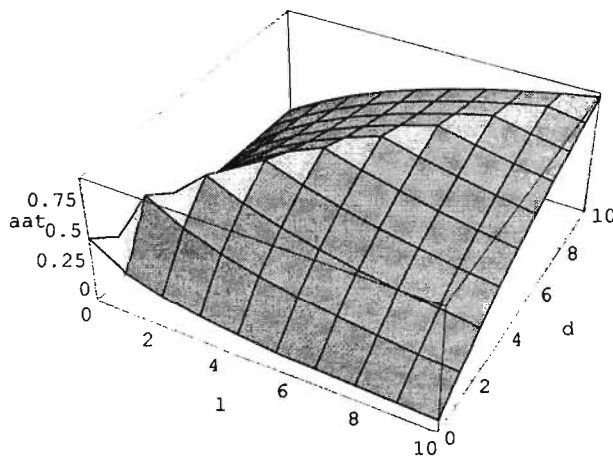


Here is the formula that has been used to measure the variable tolerance of ambiguity .

$$aat = \frac{2 \text{Min}[l, d] + 1}{1 + d + 2}$$

Unlike its original form , here its dependence on the measurements of like (l) and dislike (d) has been made explicit . This serves two purposes . It eliminates the need for a separate calculation of both the maximum and minimum values (previously called H and L) . Secondly it makes transparent how the variable ambiguity tolerance is symmetrically dependent on the variables l and d .

The three dimensional graph of this formula for tolerance of ambiguity is plotted below .



And as before we plot the table corresponding to this graph where the horizontal rows represent the values of aat as l increases from 0 to 10 and the vertical columns represent the aat values as d increases from 0 to 10.

0.5	0.45	0.4	0.35	0.3	0.25	0.2	0.15	0.1	0.05	0
0.45	0.55	0.5	0.45	0.4	0.35	0.3	0.25	0.2	0.15	0.1
0.4	0.5	0.6	0.55	0.5	0.45	0.4	0.35	0.3	0.25	0.2
0.35	0.45	0.55	0.65	0.6	0.55	0.5	0.45	0.4	0.35	0.3
0.3	0.4	0.5	0.6	0.7	0.65	0.6	0.55	0.5	0.45	0.4
0.25	0.35	0.45	0.55	0.65	0.75	0.7	0.65	0.6	0.55	0.5
0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.75	0.7	0.65	0.6
0.15	0.25	0.35	0.45	0.55	0.65	0.75	0.85	0.8	0.75	0.7
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.85	0.8
0.05	0.15	0.25	0.35	0.45	0.55	0.65	0.75	0.85	0.95	0.9
0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.

As can be seen from both the graph and the table all the desirable properties of the ambiguity tolerance measure are retained. These are namely that when $l = d = 0$, the aat value is .5. Also when l and d differ by the maximum of 10, the aat value is 0. And when $l = d = 10$, the aat value is the maximum of 1. And for any particular l value, the maximum aat value occurs where $d = l$. Furthermore several possible improvements are now apparent. These are an evenly spaced increase in the maximum values when $l = d$. The increment is now uniformly .05 and the graph is linear on either side of the maximal ridge. This means that : as the l and d values increase, so does the aat (ie aat is linearly dependent on $l + d$) ; which is as it should be since increase in affect of the responses should increase the aat; also aat is linearly dependant on the difference between l and d which is also as it should be .

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