The Use of Social Values: Decisions, Application, and Persuasion

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Thesis submitted to the
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for the degree of
Doctor of Philosophy
June 2006

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Acknowledgements

I would like to thank my supervisors, Prof. Greg Maio and Dr. Ulrike Hahn, for their time, patience, and excellent advice.

I would also like to thank Debbie, Jess, Katherine, Kerry, Michal, and Tony, for their support and friendship, and for keeping me sane. And to everyone else who has played a part in helping me throughout this process with quick minds, encouraging words, and red pens.

My thanks also to my parents for their love and care, for never doubting that I could do whatever I set my mind to, and for teaching me that my best is good enough.

And thank you to Ruth – without whom I couldn't have done it!

Finally, I would like to acknowledge God's grace and support. Throughout, He has been my strength.

Thesis Summary

This Thesis examines the use of social values in human behaviour and social judgment and investigates the processes that underlie how values are used. Across 10 experiments, I examine aspects of social values that have been largely unaddressed by prior research. Chapter 1 highlights the importance of social values, reviews the previous research on the topic, and outlines three main issues that are the focus of the subsequent experimental chapters. Chapter 2 investigates whether people base their decisions on values or on value-irrelevant consequences; the results reveal that situational factors influence whether or not social values are used to guide decision-making (Experiments 1 - 3). Chapter 3 focuses on this use of values as guiding principles and specifically on *how* abstract trans-situational values bridge the gap to impact behaviour in specific contexts. The results show that this occurs through the instantiation of the value in the specific situation and not via the abstract value itself (Experiments 4 - 7). Chapter 4 examines the use of values in persuasion and specifically the impact of the relatedness of the values paired in co-value arguments; the findings show that the motivational structure of values places plausibility constraints on which values can be paired in this way (Experiments 8 - 10). Finally, Chapter 5 reviews the contribution of the research presented in the Thesis to the field of human behaviour and decision-making and outlines potential directions for future research. Overall, the research emphasises the importance of social values and presents a new conceptualization of how values are used and applied in everyday life.

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Chapter 1
Introduction

1.1 Chapter Overview

The primary purpose of this Thesis is to provide a deeper insight into when social values are used to guide judgment and behaviour and the processes that underlie their use. Before addressing this issue in later chapters, this Chapter introduces the concept of social values and briefly reviews relevant research. I aim to show that values are important constructs and to illustrate how a better understanding of social values would usefully contribute to the study of human behaviour and decision-making. To achieve my aims, I will discuss the interdisciplinary interest in social values and explain their nature. I will then review the evidence that emphasises the importance of social values in everyday life and across diverse situations, and subsequently highlight some critical elements that are not addressed in the extant literature. Finally, I will outline how these elements will be addressed by the research presented in the subsequent chapters.

This Thesis incorporates three streams of research, which I will outline below. Each stream provides further knowledge regarding how social values are used and the processes that underlie their use. The research streams are not sequential progressions from one to another; instead, they deal with separate, but interrelated, aspects of the use of social values. As a result, much of the detailed review, discussion, and reasoning about the background literature and experimental methodologies will be broached in the relevant chapter introductions, rather than in this Chapter. Consequently, the current review is more general in nature and my aim is to provide

adequate background information before turning to the specific questions addressed in each of the three subsequent chapters.

1.2 Social Values and their Importance

> "Values are not just words, values are what we live by. They're about the causes that we champion and the people we fight for."
>
> (Senator John Kerry, b. 1943)

Interest in social values is prevalent in a hugely diverse range of disciplines from anthropology to medicine and from law to sociology. Each of these disciplines differs in its definition of social values and, over the years, there has been extensive variability in the use of the term 'values' (see Ahmed & Yannou, 2003). Nevertheless, most social values, including freedom, equality, success, national security, and helpfulness, are well known and have been widely used for centuries. Mirroring the breadth of interest in these constructs, discussion of social values has become more prevalent in everyday life as is evident from the quotation above. Values figure in debates on diverse topics, including abortion, the death penalty, education, energy consumption, euthanasia, food production, immigration, health care, social welfare, transport, and war. Values are so central to these issues that many commentators have claimed that it was the influence of moral social values that won the 2004 Presidential Election in the United States (see Ashbee, 2005; Lovett & Jordan, 2005). Similarly, in the 2005 UK General Election, Tony Blair regularly appealed to the electorate about values. For example, in his acceptance speech following the return of the Labour Government to Office for its third term, Prime

Minister Blair (2005) claimed that "... values of fairness and decency and opportunity for all ... those values are the values I believe in, the values our Government will believe in." Consistent with this, Gordon and Miller (2004) emphasised the important role that values have come to play in political dialogue and propaganda. Moreover, people tend to communicate about their values and their use of values on a regular basis; they are often referred to in everyday discussions and in the media. For example, Ball-Rokeach, Power, Guthrie, and Waring (1990) documented the media's attempts to align certain values with different attitudes for or against abortion.

Within the domain of sociology, Aberle (1950) suggested that social theory strongly emphasized the "crucial importance of a shared system of ultimate values as an element in any society" (p. 495). Consistent with later psychological thinking on values (e.g., Rokeach, 1973; Schwartz, 1992), Aberle claimed that a large part of the population shared similar values and that these mutual value priorities promote social interaction at an individual and even governmental level, as well as enabling commercial and other business dealings. Aberle concluded that a core of common values is essential for any viable social system.

At an individual level, Glazer and Beehr (2002) found that values impacted on career choices over and above the individual's country of residence. There is also evidence that social values play an important role within the group context; Roccas (2003) found that values moderated people's identification within groups, a crucial element in group functioning. Research within business and corporate management suggests that the values of individuals *and* groups can significantly impact strategy choices and implementation (Beck, 1981; Tichy & Charan, 1995) as well as the general decision-making and future direction of an organisation (Antal, Dierkes, &

Hahner, 1994; Beach & Mitchell, 1990). Within the legal domain, Basser and Jones (2002) addressed the extent to which it is the duty of the legislature to foster and encourage social values through progressive legislation (see also Feather, 1994, for discussion of the role of values in justice).

In moral philosophy, the importance of such principles and moral duties has been recognised for centuries. For example, Kant (1785/1948) proposed that principles (e.g., social values) play a central role in people's moral decision-making. More recently, theorists such as Kohlberg and Hersh (1977) have emphasised the importance of principles and their influence in moral judgments. In fact, decision-making with principles (post-conventional reasoning) is seen as the highest level of moral reasoning (Kohlberg, 1976).

With respect to the philosophy of science, many theorists have examined the non-scientific influences of values on science and empirical research. For example, in his review of the current state of scientific research, Lacey (2005) concluded that social values do impact the research agenda of science. Although Lacey viewed this as an undesirable state of affairs, Caton (2004) took the opposite perspective in his discussion of the influence of social values within the field of medicine. In fact, Caton argued that social values should play a stronger role in medical science in the future, as they have in times past.

Within psychology, Allport's (1955) 50 year old criticism that psychologists did not considering these central elements of the human psyche is equally relevant today since far less attention is paid to this important topic than should be. For example, a large number of articles are published each year on the topic of stereotypes and prejudice, whereas a mere handful of articles directly examine the social values that are presumed to support or oppose prejudice.

Moreover, there has been considerable debate in social psychology over the term used to label this construct (see Rohan, 2000, for a discussion of this debate), although recent consensus seems to have converged on 'social values' (Maio, Olson, Bernard, & Luke, 2003). In his seminal work on social values, Rokeach (1973) proposed that values are prescriptive or proscriptive beliefs wherein some means or end is evaluated as desirable or undesirable. He suggested that values are made up of cognitive, affective, and behavioural components. As such, individuals *know* the end state or means that is desirable, they feel *emotion* about it, and it leads to *action* when activated. Consistent with this view, Feather (1990) proposed that values are relatively stable criteria or frameworks against which current experience can be tested. These views are well summarised by Schwartz and Bilsky (1987; Schwartz, 1996). In their work on the structure of the value system, they suggest that "values are (a) concepts or beliefs, (b) about desirable end states or behaviour, (c) that transcend specific situations, (d) guide selection or evaluation of behaviour and events, and (e) are ordered by relative importance" (Schwartz & Bilsky, 1987, p. 551). They see values as "cognitive representations of three types of universal human requirements: biologically based needs of the organism, social interactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival" (p. 551).

Most value theorists agree that people possess similar values, although the importance that people allot to their values differs because of a person's experiences, biological endowments, and the impact of culture (Rokeach, 1973; Schwartz, 1992, 1996; Schwartz & Bilsky, 1987). These differences in importance are presumed to predict the role of values in human behaviour and decision-making. Highly important values influence the behaviour of individuals and groups because they provide criteria

with which people choose their goal and their means of achieving that goal (Pant & Lachman, 1998). They are considered to envelop standards that both guide and justify behaviour as well as incorporate the hopes and future goals of individuals and society (Braithwaite & Scott, 1991; Kluckhohn, 1951). Therefore, social values guide conduct in a variety of ways: they guide an individual's behaviour in a manner congruent to the value, but also provide the individual with a standard against which to compare their own and others' behaviour.

However, values also allow an individual to justify or rationalize their behaviour to others, ensuring their actions are perceived as socially acceptable. Thus, in contrast to their role as principles that guide behaviour, social values can also serve as justifications for actions that enable individuals to appear in a positive light and allow them to account for their actions (Eiser, 1987; Kristiansen & Zanna, 1988; see also Rokeach, 1973).

Values' potential for use as guides or as post-hoc justifications comes from their abstract nature. This property allows people to use social values in a wide variety of contexts and in relation to diverse topics. It is this level of abstraction and breadth that has resulted in social values being described as "desirable transsituational goals, varying in importance, that serve as guiding principles in people's lives" (Schwartz, 1992, p. 2). As such, values are able to fulfil their role as important, prescriptive principles that guide decision-making and are not limited to a certain context or specific situation. At the same time, this breadth enables values to be reconstrued to justify decisions that are motivated by other factors (e.g., the consequences of alternative A and the advantages of alternative B).

Furthermore, whether values act as justifications or as guides to behaviour (an important distinction examined in Chapter 2), values fulfil an important role in

maintaining and enhancing "the master-sentiment of self-regard" (Rokeach, 1973, p. 15). Steele (1988; Steele & Liu, 1983) proposed that this occurs, at least in part, through a process of self-affirmation. Affirming a value (using it as a guiding principle or as a justification) increases an individual's feelings of self-integrity and this enables the individual to preserve a positive self-concept even when he or she engages in a behaviour that might threaten that self-concept. Consistent with this, Kristiansen (1990) proposed that individuals may use values to justify their prejudicial attitudes towards an outgroup, whilst maintaining a positive self-regard by exaggerating perceptions of intergroup value differences.

Despite these important roles, values have not received as much empirical attention as they deserve. Nevertheless, over the past half century there has been some interest in social values, with a number of influential social psychologists recognising the crucial role they play. For example, Allport (1961, p.543) described values as "the dominating force in life" and Rokeach (1973) suggested that values should be given a central role across all the social sciences because they could unify the diverse interests of all the sciences concerned with human behaviour. In the conclusion to his book, Rokeach (1973) stated that social values seem "relevant to all of the behavioural sciences and to philosophy and religion as well" (p. 326). He proposed that all science of human behaviour was relevant to values because the use of values in decision-making was one of the distinguishing marks between humans and other species.

Since the work of Allport and Rokeach, other psychologists have also argued for the importance of social values. In particular, Schwartz and colleagues conducted extensive cross-cultural research on social value structure. Although people differ in the importance they place on values, this research has found consistent results when

comparing the structure of values in over 60 nations around the world (Schwartz, 1996; Schwartz & Sagiv, 1995; Schwartz, Melech, Lehmann, Burgess, Harris, & Owens, 2001). In this research, respondents rated the importance of 56 abstract ideals (e.g., honesty, success, national security, daring) as guiding principles in their lives. In most of the nations examined, there was a consistent pattern of correlations between value ratings. This consistency of interrelationships suggests that values are universally understood in similar terms, at least to some extent.

It is therefore unsurprising that there is evidence for a central role of values in people's cognitive networks (Gold & Robbins, 1979; Gold & Russ, 1977; Thomsen, Lavine & Kounios, 1996). Some of this evidence exists in research that has examined interconnections between values and attitudes in memory. For example, Thomsen et al. (1996) found that participants were faster at responding to pairs of attitudes and values that were high or low in relatedness. This result suggests that value and attitude concepts are associated within people's semantic networks. Moreover, these researchers found that participants were faster at making decisions on relatedness for more important values, suggesting a more central role for the important values. This finding is consistent with Thomsen et al.'s other observation that values had more cognitive associates (or links) than attitudes and are thus more central within cognitive networks.

Some researchers have argued that the central role of values is also revealed by the relations between values and diverse behaviours (e.g., Feather, 1995; Homer & Kahle, 1988; Maio, Roese, Seligman, & Katz, 1996; Rokeach, 1973; Schwartz, 1992; Schwartz & Bardi, 2000, 2001), ranging from automobile purchase (Henry, 1976) to Church attendance (Rokeach, 1960), and from political choices (Baum, 1968) to cigarette smoking (Grube, Weir, Getzlaf, & Rokeach, 1984). Social values, and

specifically value-congruence, also impact well-being, including greater job satisfaction, greater family satisfaction, and greater emotional well-being (Burke, 2001; Joiner, 2001; Megliano, Ravlin, & Adkins, 1989; Sagiv & Schwartz, 2000). In fact, Compton (2001) claimed that any definition of personal well-being is intricately tied to values. Furthermore, social values have even been found to influence choice of alcoholic beverage; Hawkins, Best, and Coney (1995) found that consumers preferred the taste of one beer (in all ways identical to the other alternative) because of the values with which it had been associated in a marketing campaign. Such evidence suggests values serve as criteria or reference points for the selection or evaluation of diverse behaviours. The ability to predict diverse behaviours makes it likely that values are in fact stored in central positions that enable people to easily link them to the behaviours. This may be the case even if values are mere post-hoc justifications, rather than anchors for determining behaviour.

In summary, evidence from diverse sources and disciplines indicates that social values are unique and important constructs that need to be further examined in order to better understand human behaviour and social judgment. Rokeach (1973) argued that "values are determinants of virtually all kinds of behaviour that could be called social behaviour" (p. 24) and proposed that values underlie many, if not all, social attitudes. Consequently, a better understanding of social values could provide an important insight into, seemingly, all social behaviour. Nevertheless, this crucial importance of social values seems to have been missed by much of social psychology, and thus many relevant questions remain unanswered. In particular, we know little about the psychological processes underlying the *use* of social values on an everyday basis. As will become evident, the role of values as *abstract* guiding principles leaves open several substantive issues to explore.

1.3 The Structure of Social Values

There are two broad perspectives that have been used to examine social values. First, there is a long history of research that has measured value orientation using hypothetical games or vignette-like measures (see McClintock, 1972; Messick & McClintock, 1968). In this approach, an individual's social value orientation is assumed to be a stable dispositional variable: a preference for certain outcome allocations to oneself and another individual that has even been described as a personality trait (Van Lange, De Bruin, Otten, & Joireman, 1997). There are three kinds of orientations; pro-social, individualistic, and competitive orientations. These dispositional variables are often studied within research into co-operative behaviour using interdependence dilemmas such as the prisoner's dilemma game (e.g., Smeesters, Warlop, Van Avermaet, Corneille, & Yzerbyt, 2003). A pro-social orientation involves maximising joint outcomes and maximizing equality in outcomes. In contrast, the other two orientations have been labelled pro-self orientations (e.g., Van Lange & Liebrand, 1991): the individualistic orientation involves maximizing own outcomes irrespective of the opponent's outcomes, and the competitive orientation involves maximizing own outcomes relative to the opponent's outcomes. Overall, individuals with a pro-social orientation tend to be more co-operative than individuals with a pro-self orientation (e.g., Van Vugt, Meertens, & Van Lange, 1995).

These orientations do not solely impact behaviour however; they also influence how individuals perceive the behaviour of other people. An individual with a pro-social orientation tends to make moral judgments, whereas an individual with a pro-self orientation tends to make judgments in terms of strength and competence

(Van Lange & Kuhlman, 1994). However, both of these uses of social value orientations are based on the stability of this dispositional variable. The emphasis is on general behavioural tendencies and not on subjective evaluations of importance of various ideals or on the explicit contemplation of these ideals (or values) in everyday decisions.

The other broad perspective focuses on explicit, subjective evaluations of value importance. Most research using this emphasis has stemmed, at least in part, from Rokeach's (1973) seminal work. Rokeach proposed a distinction between values that encompass modes of conduct (instrumental values) and values that are end-states of existence (terminal values). Rokeach suggested that instrumental values related to morality and competence, whilst terminal values related to personal or social goals. Although these two systems were proposed to be separate, they were also thought to be functionally interconnected, with instrumental values being used to attain terminal values. Rokeach's (1973) construal of an interconnected belief system involved countless beliefs that were organized into thousands of attitudes, 70 - 80 instrumental values, and around 18 terminal values, with the terminal values being more central than the instrumental values, which are more central than the attitudes.

However, Rokeach did not propose a theory about the underlying structure of the value system itself. Moreover, in extensive research on the structure of social values, Schwartz (1992) found no evidence for the distinction between terminal and instrumental values. Instead, using the structure initially proposed by Schwartz and Bilsky (1987), Schwartz (1992) further elaborated on a circumplex pattern of relations between self-ratings of the importance of values. These ratings incorporated 10 distinct motivational value types: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism.

Values organized into these value types represent, in the form of conscious goals, the three universal requirements of human existence: biological needs, needs for social interaction, and survival and welfare goals (Schwartz & Bilsky, 1987).

The relationships between the values and the motivational types can be summarized in terms of a two-dimensional structure composed of two orthogonal, bipolar, dimensions. One dimension, self-transcendence versus self-enhancement, contrasts values that transcend self-interest (e.g., forgiving, helpfulness) with values that involve social superiority and esteem (e.g., social power, influence). The second dimension, openness to change versus conservation, contrasts values that follow intellectual and emotional interests in uncertain directions (e.g., daring, a varied life) with values that emphasize conservation of order and harmony (e.g., respect for tradition, obedience). These value types can be arranged in a circumplex design (see Figure 1.1) with similar value types adjacent in the circular structure and less compatible value types further apart. Given the a priori theory about the motivational underpinning of the value types, Schwartz (1992) proposed that specific values that are further apart around the circle have lower compatibility and greater conflict. Values in opposing positions (e.g., a varied life and respect for tradition) are postulated to be in the greatest conflict because fulfilment of both values at the same time would give rise to conflicting psychological, practical, or social consequences. In contrast, adjacent values in the circumplex structure (e.g., helpfulness and forgiveness) are postulated to be compatible.

Research in over 60 countries has found support for this value structure when assessing the patterns of correlations between ratings of the importance of specific values as guiding principles (Schwartz, 1996; Schwartz et al., 2001). As a result, this value structure has been used in much of the subsequent research on values conducted

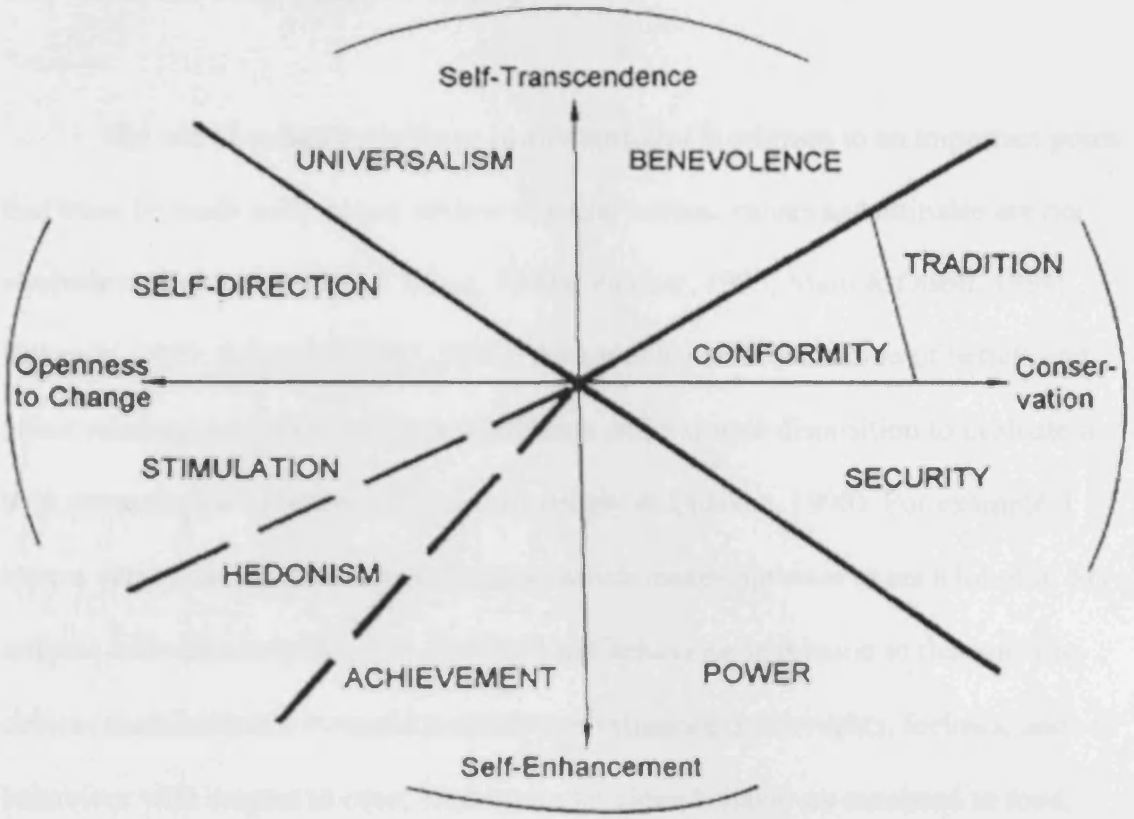

Figure 1.1. The Schwartz (1992) circumplex value structure.

over the last 25 years (see Maio et al., 2003; Rohan, 2000, for reviews). Recently, there has been particular interest in examining the motivational underpinnings of the value system structure. For example, Pakizeh, Gebauer, and Maio (in press) investigated the latent structure of social values in memory and found that, consistent with Schwartz's (1992) model, the speed of value ratings and value preference judgments in pairs of values could be predicted from the motivational compatibilities and conflicts in the circumplex structure. Moreover, these compatibilities and conflicts predicted speed of value-importance judgments over and above the effect of the perceived semantic relations between the values. This result is consistent with Schwartz and Bilsky's (1987) theorising that the circumplex structure is not an artefact of the semantic similarity among the words.

1.4 Values are Unique and Yet Truistic

The use of values to guide or justify attitudes is relevant to an important point that must be made early in any review of social values; values and attitudes are *not* equivalent (Bernard, Maio, & Olson, 2003a; Feather, 1995; Maio & Olson, 1994; Rokeach, 1973; Schwartz, 1992, 1996). Attitudes are an organisation of beliefs and affect relating to a specific object or situation and a simple disposition to evaluate it with some degree of favour or disfavour (Eagly & Chaiken, 1998). For example, I have a very positive attitude to chocolate, which makes me want to eat a lot of it. My attitude influences my thoughts, feelings, and behaviour in relation to that specific object (chocolate), but it would probably not influence my thoughts, feelings, and behaviour with respect to other food types, let alone behaviours unrelated to food, such as revision for examinations. In contrast, values are far broader and wider reaching (Rokeach, 1973; Schwartz, 1996). For example, I may consider the value of self-discipline to be important. This value would influence my thoughts, feelings, and behaviour, not only in relation to chocolate and how I should not eat too much of it, but also in relation to a whole host of other food and non-food objects and situations *including* how much time I spend revising for examinations. Therefore, values should play an important practical role in decision-making and behaviour across diverse objects and situations (Feather, 1995; Mumford, Connelly, Helton, Van Doorn, & Osbourn, 2002; Rokeach, 1973; Verplanken & Holland, 2002).

For similar reasons, it is clear that social values are distinct from social norms, needs, traits, and interests (see Rokeach, 1973, for further discussion of these distinctions). Values differ from specific goals (Roberts & Robins, 2000) because values are trans-situational and thus are able to guide behaviour across contexts.

Values also differ from needs and motives. In his model of needs, Murray (1938) proposed 20 needs (e.g., need for affiliation, need for power, need for achievement) that he suggested were based in human physiology. Murray proposed that needs form the core of an individual's personality and are formed in the process of adapting to environmental forces. Values, on the other hand, are cognitive representations of three universal requirements of human existence, including biological, social, and group survival goals (Schwartz, 1992; Schwartz & Bilsky, 1987), and are inherently desirable.

Furthermore, values have been described as an important part of an individual's self-concept and, thus, they play a role in contributing to an individual's self-identity. For example, one may consider oneself a defender of social justice, and may even campaign against legislation that one perceives as threatening this value. Consistent with this, many theories of racism emphasize the role that values, and more specifically value violation, plays in determining levels of racism and racial attitudes. For instance, the theory of symbolic racism (Kinder & Sears, 1981; Sears, 1988) suggests that racism is at least partly based on perceptions by the ingroup (e.g., Whites) that the outgroup (e.g., Blacks) violate their cherished values. Similarly, Schwartz, Struch, and Bilsky (1990) suggest that outgroup antagonism is caused by perceived discrepancies in value hierarchies between the ingroup and the outgroup.

Despite this evidence for the importance and uniqueness of social values, it does not necessarily follow that people have strong, easy-to-articulate reasons or argumentative support for their values. In fact, the values-as-truisms hypothesis (Maio & Olson, 1998, see Bernard, Maio, & Olson, 2003b, for evidence of values-as-truisms for both personal and societal values) suggests exactly the opposite. In their investigation of values, Maio and Olson (1998) found that social values meet the two

empirical criteria for truisms: people highly agree with values and yet lack cognitive support for them. For example, in one experiment, Maio and Olson found that considering reasons for values caused participants' ratings of value importance to change, unless participants were provided with cognitive support for their values prior to considering their reasons.

This evidence does not suggest that values are somehow unimportant, but rather that their importance does not come from their cognitive support or the reasons that participants give for their values. Instead, Maio and Olson suggest that the importance of values comes from the strong feelings that individuals have about them (affective information) and individuals' memories of value-affirming actions that they performed in the past (behavioural information). They propose that, because there is little debate over the importance, centrality or general desirability of values, they are widely shared and rarely questioned. Consequently, people do not bother to build cognitive support for their values at least partly because they are fundamental principles. This general consensus on the importance of social values is something that Rokeach (1973) alluded to when he discussed the ways in which individuals learn about values; children are not told to be a little bit honest, or to strive for a little bit of freedom, rather values are taught in an all or none fashion.

1.5 Values as Principles or Not?

If values are important trans-situational guiding principles (Schwartz, 1996), then they should be consistent with decision-making and behaviour. However, people do not always act in accordance with their values. For example, in a now famous experiment (Darley & Batson, 1973), theological seminary students who had been

asked to give a short talk in a nearby building were far more likely to stop and help an ill individual on their way to the talk if they were on time (63%) than if they were already late (10%). This situational effect occurred irrespective of whether the talk they were asked to give was on the parable of the Good Samaritan (helpfulness salient) or on a subject unrelated to helpfulness.

Furthermore, other evidence suggests that values can function as post-hoc justifications for decisions made on the basis of other factors, rather than as guides to behaviour. For example, Kristiansen and Zanna (1988) found that people with different attitudes on the same topic considered different values as relevant to the topic, over and above any difference in the importance that participants attributed to the values themselves. For instance, opponents of abortion listed true friendship as more relevant to the issue, whereas proponents regarded the values of freedom, a comfortable life, and happiness to be more relevant. These researchers interpreted this evidence as support for the value justification hypothesis (see Kristiansen & Zanna, 1994, for a review), which states that social values play a stronger role in justifications of established attitudes and behaviours than they do as guides to behaviour.

Similarly, Seligman and Katz (1996) proposed that individuals construct their value systems within specific contexts, rather than possessing a general system of values. This view emphasises the dynamism, rather than the stability, of value systems and values themselves. Values are not seen as general principles applied to situations or issues as they arise; instead, people are thought to modify or create their value systems within the situations. As such, people consider other factors when they decide how to behave in a situation, such as evaluations of imagined outcomes of their actions and perceived norms. These factors bias subsequent judgments and

behaviours, and people then use values to provide a post-hoc justification. As a result, people's ratings of the importance of different values (e.g., sanctity of life) vary in the context of different issues (e.g., abortion, capital punishment), rather than remaining consistent with their endorsements of the values as general guiding principles (Seligman & Katz, 1996).

Despite these arguments and the evidence that people do not always act in accordance with their values, no empirical research has directly examined when or how social values are used as the basis for decision-making, whilst simultaneously examining the impact of value-irrelevant consequences. Only if these influences are jointly examined can a reliable picture be achieved of when social values are used as guiding principles and when they are not. Moreover, if they are used as guiding principles, the extant literature says nothing about *how* these abstract values bridge the gap to guide behaviour in specific contexts. The values-as-principles research conceptualizes values as abstract and trans-situational. In contrast, the values-as-justifications research conceptualizes values as transient and context specific. An integration of these two conceptualizations is necessary to enable better understanding of *how* values are used.

1.6 The Current Research

Given this review of social values, it is not difficult to understand why some researchers (e.g., Feather, 1990; Rohan, 2000; Rokeach, 1973; Schwartz, 1992, 1996) consider values to be among the most fundamental social psychological constructs and why values are considered important in such a wide variety of disciplines. The use of social values in reasoning, moral philosophy, politics, and law (e.g., the

Universal Declaration of Human Rights), has been recorded for centuries (see the works of Aristotle and Plato). However, the empirical study of these constructs has been neglected until relatively recently and, despite some interest, the study of social values is still on the fringe of social psychological research (see Rohan, 2000). What research there is within psychology has tended to focus around a few key issues such as the structure of the value system (e.g., Schwartz, 1992, 1996), the truistic nature of values (e.g., Maio & Olson, 1998), and value orientations (e.g., McClintock, 1972). As a result, there still remain crucial elements within the study of social values that are unaddressed. Moreover, empirical evidence of when and how social values are used is equivocal. In my view, there are two basic issues that need to be addressed. First, *when* are decisions based on values as guiding principles in decision-making rather than based on value-irrelevant consequences with values used as post-hoc justifications? Second, if values are used as guiding principles, *how* are these principles applied within specific contexts?

The first issue to be addressed is when values are used as guiding principles or as post-hoc justifications. Given the general desirability of values, it seems logical that normative pressure on individuals to appear in a positive light and portray a positive image to others would cause people to justify their behaviour or decisions by appealing to these desirable, widely shared constructs. Such appeals *could* give the impression that values are used in decision-making when decisions are actually based on other factors, including the consequences of the available alternatives (entirely unrelated to the salient values). Nonetheless, there is also reason to expect that values *should* impact and guide behaviour. All decisions require some criteria as benchmarks, and consistency in decision-making requires abstract criteria as benchmarks that cover various instances. Thus, the issue is when do people base their

decisions *more* on values than on value-irrelevant consequences? To my knowledge, no experimental research has directly examined this issue. This gap in the literature is addressed in Chapter 2, "Decisions: Values or Consequences?"

The second issue is also raised by the debate between the values as principles and the values as justifications (within specific contexts) perspectives. In their review chapter, Seligman and Katz (1996) conclude that there is a need to find the middle ground between seeing the value system as stable and applicable to all contexts and seeing it as ever-changing in the face of transient forces. I propose that this middle ground can be achieved by examining the processes that underlie the application of values as abstract guiding principles within specific contexts and situations. In everyday life, people must bridge the gap between social values in their abstract form and specific contexts or issues. In fact, even Schwartz (1996), who proposed the 'rigid guiding principle' view of values, emphasises the necessity of studying values within specific contexts to "increase our understanding of how values enter into concrete decision-making" (p. 47). Similarly, Rokeach (1973), in his discussion of the influence of values on politics, highlighted the importance of the instantiations of the value:

> "Obviously, then *freedom* cannot mean the same thing to socialists and to capitalists even though both may insist that they value it very highly. It is one thing to value *freedom* highly and ignore or be silent about *equality*, and it is quite another thing to insist that *freedom* is not truly possible unless it goes hand in hand with *equality*. To American Conservatives, *freedom* probably means lack of restraint on individual initiative and the *freedom* to achieve superior status, wealth, and power; to Socialists, *freedom* probably means

sufficient restraint on individual initiative to ensure greater *equality* for all."

(Rokeach, 1973, pp. 183-184)

However, the potential of value instantiation to bridge the gap between abstract values and specific contexts has not been empirically examined in past research; this will be the focus of Chapter 3, "Application: Abstract to Specific."

The above quotation also illustrates the final issue to be considered in this Thesis. Rokeach notes how freedom and equality could each be used in argumentation for the other value. Indeed, as will be shown in Chapter 4, "Persuasion: Similar is Best", values are often paired in co-value arguments in a variety of disciplines, but there is little understanding of this use of values despite its prevalence. Schwartz's (1992) circumplex model makes salient the possibility that some values can be combined in arguments because they are motivationally compatible, whereas others cannot be combined because they give rise to conflict. I aim to investigate whether this pattern acts as an implicit, hereto undocumented, constraint on co-value argumentation in order to shed further light on this common use of values.

1.7 Chapter Summary

The current Thesis aims to provide some of the first empirical examinations of aspects of social values that are largely unaddressed in the extant literature: specifically, the use of social values and the processes that underlie that use. As such, the three streams of research undertaken shed light on the impact of these important psychological constructs on human behaviour and decision-making. The three streams consider the use of values in different contexts, including hypothetical

scenarios (Chapter 2: "Decisions: Values or Consequences?"), specific contexts of value-relevant reasoning and behaviour (Chapter 3: "Application: Abstract to Specific"), and instances of co-value argumentation (Chapter 4: "Persuasion: Similar is Best"). Given the diverse cross-disciplinary interest in social values and the general scarcity of empirical research addressing crucial questions about how social values are used, this research will illuminate these important issues.

Chapter 2
Decisions: Values or Consequences?

2.1 Chapter Overview

The aim of this Chapter is to shed light on when social values are used as guiding principles in decision-making. In order to address this issue, I sought evidence that individuals make decisions on the basis of social values and on the basis of value-irrelevant consequences (e.g., costs to self vs. others). This aim was achieved through three experiments: Experiment 1 found that a manipulation of value promotion (vs. threat) in decision-making scenarios predicted participants' decisions and justifications of their decisions. Using a task that placed less stress on participants' reasoning about the scenario, Experiment 2 found evidence for an effect of manipulated consequences. Using a similar scenario, Experiment 3 found that reasoning by principles attenuated this effect when participants were asked to explain their decisions. These experiments provide the first examination of the simultaneous impact of values and consequences on human decision-making and reveals important information about when values are used.

2.2 Principles or Consequences?

> "Choices are justified both by consequentialist arguments showing the acceptability of a ruling one way or the other having regard to their consequences and by arguments of coherence and consistency showing how a

ruling acceptable on other grounds can fit with the existing relevant body of law."

(MacCormick, 1979, p. 113)

The above extract from MacCormick's (1979) well known analysis of legal decisions suggests that the principles laid down by law and the anticipated consequences of decisions *both* influence judicial findings. In contrast, Hart's (1961) well known account of legal theory suggests that laws simply become post-hoc explanations for a decision made to minimize aversive consequences. Such assertions have led to controversy over the relative use of the principles and predicted consequences in legal decision-making (e.g., Dworkin, 1977, 1986; Hart, 1961; MacCormick, 1979) – a debate that echoes a centuries-old controversy in moral philosophy. On the one hand, "consequentialists" like Bentham (1789/1982, see also Ross, 1930) have suggested that decisions are taken to maximize the utility of imagined consequences. On the other hand, "principlists" like Kant (1785/1948) have proposed an emphasis on moral duties and principles in decision-making. This issue has been debated at length in diverse areas of social science, including legal theory, ethics, political science, and moral philosophy.

This philosophical debate mirrors the first issue highlighted in Chapter 1; when are decisions made on the basis of values or on the basis of value-irrelevant consequences? Given the extensive evidence (reviewed in Chapter 1) indicating that values predict judgments and behaviour, it is important to empirically examine the extent to which this prediction occurs because values are actively used in decision-making or because people make their decisions on other bases and appeal to values as justifications. Investigating this issue will also shed light on which factors influence the way in which values are used.

Initially, however, clarification of some nomenclature is necessary. As outlined in Chapter 1, by 'values', I imply *trans-situational goals* that serve as fundamental guiding principles in people's lives and represent universal requirements of human existence, including biological, social, and group survival goals (Schwartz, 1992; Schwartz & Bilsky, 1987). Examples include equality, success, helpfulness, and security. Values are not simply all things that have a positive utility, however minor or transient that utility might be, but are fundamental and general prescriptive ideals. Naturally, all decisions and choices must have some 'value' or utility (e.g., varied aspects of hedonic experience). However, this is not to be confused with fundamental 'values' that are prescriptive ideals that are salient as explicit considerations prior to decisions. These ideals are what people claim *should* be used in the decision, over and above any other reinforcement or value in the situation.

By 'consequences', I imply states that result from making one choice or the other; these encompass a wide range of factors, large or small, which may be liked or disliked, and which may themselves be compatible or incompatible with value-based decisions. One such consequences dimension is whether one is making a decision for oneself or for another. For example, people might believe that the decision to donate to a charity should depend on whether it will actually help people who need it (i.e., the value of helpfulness) and on how much money can be afforded (i.e., the value of wealth), and that these considerations should be used by *all* donors and applied to every charity equally. In deciding whether or not to donate, it would be hypocritical if these principles were applied more to some people than to others; the same principles would apply to a decision about whether to donate money to a charity oneself or to advise another to donate the money. However, the imagined consequences for the self may be more negative than the imagined consequences for the other. Philosophers

have asserted that this personal dimension "makes a vast difference" to the utilitarian calculus (Ross, 1930, p. 22; but see also Sidgwick, 1907). More importantly for my purposes is the distinction between consequences for the self versus another; this offers a straightforward empirical basis for beginning to address the role of imagined consequences and disentangling the impact of values. Thus, the present studies examine when people are influenced by values, consequences, or both.

2.2.1 Effects of Values and Consequences

My proposal is that *both* processes occur, such that values *and* consequences influence decisions. This perspective has been advanced in legal theory and the study of ethics (Ross, 1930; Wolf, 1982; see also MacCormick, 1979), but has not been subjected to empirical test. Prior research has not examined (a) the *causal* effects of value-laden principles and of consequences, (b) their *simultaneous* impact, and (c) the effects in contexts where the principles themselves *conflict*. Nevertheless, there is evidence that both values and consequences do impact decision-making.

Past research on social judgment has found considerable evidence that moral judgments may be predicted by basic values and moral principles (e.g., Kohlberg & Hersh, 1977; Maio, Olson, Allen & Bernard, 2001; Maio & Olson, 1998; Rokeach, 1973; Schwartz, 1996). However, the specific role of social values is, as discussed in Chapter 1, somewhat equivocal. Most of the research reviewed in the previous chapter supports the notion that values guide the fulfilment of important motives; there is evidence that values structure and guide attitudes (Homer & Kahle, 1988; Maio & Olson, 1994; see also Olson & Zanna, 1993), while serving as standards by which people can judge their own actions and the actions of others (see Rohan, 2000). Consequently, individuals attempt to behave consistently with their values (Rokeach,

1973; Schwartz, 1996) and values are important predictors of choices in situations of decision conflict (Feather, 1995; Mumford et al., 2002; Verplanken & Holland, 2002). This evidence fits Kant's (1785/1948) view that duties and principles play an important role in decision-making.

Resembling the debate in legal theory, other research suggests that people modify their value systems within situations, rather than using fixed values as guiding principles (Kristiansen & Zanna, 1988; Seligman & Katz, 1996). That is, people consider other factors when they decide how to behave in a situation, such as evaluations of imagined outcomes or consequences of the alternatives and perceived norms governing behaviour. These factors bias subsequent judgments and behaviours, and people then use different values to provide a post-hoc justification of their judgments and behaviours. This results in differences in endorsements of values in different contexts (Kristiansen & Zanna, 1988; Seligman & Katz, 1996) because values are used to justify decisions made on the basis of value-irrelevant consequences.

The role of anticipated consequences in decision-making generally has been established by a century of psychological research, beginning with the demonstration of operant conditioning (e.g., Skinner, 1938; Thorndike, 1898), and remains one of psychology's most basic theoretical constructs. This echoes the long-standing philosophical assertions that consequences are important (Bentham, 1789/1982), although the conceptualization of consequences is still under debate. For example, though some have deemed the self-other distinction as relevant to the utilitarian calculus (e.g., Ross, 1930), this is arguably not the dominant philosophical view. According to main-stream utilitarianism, people's aim should be to maximise the utility of imagined consequences for the individual and people as a whole. In other

words, everybody's well-being matters. This means that conflicting interests somehow need to be aligned. There are numerous suggestions as to how this might be achieved, such as imagining that all decisions were made by a single person (Hare, 1981), or assessing overall comparative losses and gains. These proposals, though different in technical detail, will typically not licence the influences of self-other discrepancy examined as consequences in this research.

My conception of consequences as factors that are irrelevant to principled, universal standards (values), is consistent with the majority of the psychological literature on consequentialism (e.g., Baron, 1992; Beisswanger, Stone, Hupp, & Allgaier, 2003; Kray & Gonzalez, 1999; Kray, 2000). More specifically, for the purposes of the current research, the consequences must be irrelevant to the values in conflict and have no immediate links to other values in order to determine whether decisions are made on the basis of values or values are simply applied in a post-hoc fashion to justify the decisions based on consequences whilst maintaining a positive self-concept (see discussion in Chapter 1). It is especially important to address this issue because there is evidence that these value-irrelevant consequences, such as self versus other consequences, do impact decision-making even though participants do not think they should. For example, Kray and colleagues (Kray & Gonzalez, 1999; Kray, 2000) found that participants would tend to make different decisions regarding job choices dependent on whether deciding for themselves or advising a friend. Similarly, Beisswanger et al. (2003) studied a variety of decision topics and found that participants were more risk averse when making decisions for themselves than when advising a friend. Beisswanger and colleagues suggested that this was partly because, when making personal choice decisions, participants focused more on the negative (rather than the positive) consequences of the potential outcomes. Finally,

Greene, Sommerville, Nystrom, Darley, and Cohen (2001) have provided evidence to suggest that moral decisions that are 'up close and personal' involve different brain regions than decisions that are not. Thus, there is substantial evidence that the self-other distinction is an important place to begin looking for effects of value-irrelevant consequences that may override effects of values on decisions.

The abstract nature of values is a major reason for the emergence of the reasoning by principles and reasoning by consequences debate in psychology and other social sciences. On the one hand, values are abstract principles or rules that develop with experience (Rokeach, 1973). To enable their use in varying situations, any rule must be represented more abstractly than the instances to which it applies. Values as abstract guiding principles fulfil this criterion. On the other hand, the abstractness of values enables them to be used as tools to rationalize decisions that are governed primarily by evaluations of the consequences of the decisions. Thus, the abstractness of values enables them to be used both as guiding principles and as post-hoc justifications.

This dual process should be particularly evident in situations that contain conflict between values. People are continually faced with a multitude of unavoidable trade-off decisions between values. For example, people often decide between using their resources now and saving them for a rainy day, and between work, family and leisure time (Tetlock, Peterson, & Lerner, 1996). In these situations, pursuing one particular value (e.g., achievement) may conflict with the pursuit of another value (e.g., enjoying life). According to Schwartz (1996), such conflicts cause values to enter into conscious awareness and to be used as guiding principles. In such conflicts, the role of personal consequences might be attenuated because, as many value

theorists predict (e.g., Feather, 1990; Rokeach, 1973; Schwartz, 1996), attention is drawn to the conflicting values.

The current research seeks to shed light on when decisions are made on the basis of values and when they are made on the basis of consequences. As a result, it will reveal more about the use of social values in human behaviour and decision-making.

2.2.2 The Importance of Social Context

A weakness of the prior research on values and on consequences is that it has been highly *asocial* in conceptualization. This is particularly true of some of the values research that has looked at the importance ratings of abstract general principles and their correlations with behaviour (Rokeach, 1973; Schwartz, 1996; cf. Kristiansen & Zanna, 1994). Most real decisions have a social context, wherein people have to explain their choices. I expect that such a pressure to explain their decision should augment the normative pressure to appear principled and rational, forcing people to engage in reasoning by principles. This pattern would provide an illustration of the 'aboutness' principle proposed by Higgins (1998a), which is people's tendency to infer that their own and other people's actions and decisions are 'about something'. People assign meanings to the decisions made and often identify a single source that they view as responsible for that decision or action. In the absence of normative pressure, people may perceive a decision as being 'about' the consequences that would result from their choice. However, the addition of normative pressure to justify their choice may lead people to perceive the decision as being 'about' the values involved in the situation. This pattern would be consistent with Maslow's (1970) hierarchy of needs, which suggests that immediate utilitarian consequences would be

the more obvious focus of people's decisions because they are lower in the needs hierarchy. In this way, participants would naturally make the decision that would achieve the most positive self-consequences or at least avoid negative self-consequences. The introduction of justification would prime people's higher order social and self needs, which would necessitate an explicable decision based on the values involved. Consistent with this view, values are stronger predictors of behaviours when they are salient (Karremans & Van Lange, 2004; Maio et al., 2001; Verplanken & Holland, 2000). This is at least partly because their salience enables them to be used as priors in a decision and guide the decision-making process (Oaksford & Hahn, 2004).

To illustrate, consider a situation wherein the values of wealth and helpfulness are in conflict. These are two fundamental values (Schwartz, 1992) and are not decisions that simply involve some degree of positive value (see Rohan, 2000). Helpfulness may be promoted by a charity that works to save the lives of starving children, but promoted to a lesser extent by a charity that works to save historical artefacts. The value of wealth is threatened by the charity requesting a donation of £50, but threatened to a lesser extent by requesting £10. Both of these principles are involved at higher and lower levels of value promotion or threat. For example, helpfulness is threatened by not donating, but wealth is promoted. In contrast, helpfulness is promoted by donating, but wealth is threatened. Importantly, the same fundamental, universal, principles should be used to decide for oneself or for another person. For both the self and another, donating £50 is a greater threat to the value of wealth than donating £10, and saving starving children is more beneficial to the principle of helpfulness than saving artefacts. Nevertheless, the affective consequences of this deliberation should appear more vivid and impactful for the self

than for another. For a decision about the self, it is easy to imagine loss of funds for a personal goal (e.g., attending the ballet). Yet, such consequences are less vivid as imagined endpoints for others. Thus, the self-other dimension affects the salience of diverse, specific consequences of the decision, consequences that people would often not codify as general principles across situations.

2.2.3 Overview of Experiments

In the following three experiments, I search for evidence of reasoning by principles and reasoning by consequences using manipulations of values and consequences within value conflicts. Experiment 1 examined the effects of values and consequences in value conflict dilemmas that focused on participants' decisions and required explanation of participants' choices. Experiment 2 made the decision secondary to participants' main task and required no decision justification. Finally, Experiment 3 again made the decision secondary, but included a request for decision justification. These designs thus enabled me to examine the effects of values and consequences at varying levels of focus on the decision, and to test the hypothesis that the expectation to justify a decision decreases the impact of consequences whilst increasing the impact of values.

2.3 Experiment 1

Participants in the first experiment were given hypothetical choices between performing a behaviour that affirmed one value and performing a behaviour that affirmed another value. The choices threatened or promoted each value to a high or low degree. For example, in one scenario, the value of honesty was promoted to a

high degree by suing a legal firm that had been dishonest (a senior partner stole money), but promoted to a lower degree by suing a legal firm that had lost the money because it had been a victim of fraud. The value of social justice was threatened to a high degree by choosing to sue when the jobs and livelihoods of 30 members of staff were at risk, but to a lesser degree when no jobs were at risk. The consequences factor in all of the scenarios was whether participants were making decisions for themselves or advising a friend on what they should do. In other words, participants either decided whether to sue the firm or decided whether to advise a friend to sue the firm. Participants were asked to make a binary choice decision, to rate the likelihood of making this decision, and to list their reasons for making the choice they did. Participants could support the value of honesty by choosing to sue the company or support the value of social justice by choosing not to sue the company.

If people were guided solely by their values, the manipulations of value threat should affect participants' choices, while the manipulation of self versus other should have no effect. If people were guided solely by consequences (see, e.g., Batson, Thompson, & Chen, 2002, for discussion on moral hypocrisy), then the manipulations of value threat should have no effect, while the manipulation of self versus other should affect participants' choices. If people are guided by values and consequences, both manipulations should affect their decisions. Finally, threats to values and consequences may interact. For example, threats to values may have significant effects when personal consequences are high, but not when personal consequences are low. Alternatively, when there is high value conflict, participants may rely on the consequences as an additional motive to choose one side of the conflict or the other. The present design enabled me to examine all four possibilities.

2.3.1 Method

Participants

Participants were 80 students (56 women, 24 men) at Cardiff University who participated for course credit or £3. Three additional participants were eliminated from analyses because they failed to follow instructions.

Procedure

Participants were asked to read and make decisions about four hypothetical value dilemmas (see Table 2.1 for details). All of the scenarios presented a choice that pitted one value against another value, while having consequences for the self (high personal consequences) or for another person (low personal consequences). All scenarios were used in a between-subjects 2 (value A: High vs. Low promotion) x 2 (value B: High vs. Low promotion) x 2 (consequences: self/High vs. other/Low) design. Participants were randomly assigned to receive all four scenarios in one of the eight manipulation combinations (e.g., HHH or LHL). The scenarios were presented twice (for different dependent measures; see below). The order of presentation of the scenarios was randomised across participants, but this order was maintained for both presentations of the scenarios to each participant. This was to ensure that there would be no order or presentation effects.

In the first presentation of the scenarios, participants made a binary choice decision relating to each scenario. Because the scenarios each involved two conflicting values, participants' choices promoted one value or the other. Extensive pilot testing ensured that the scenarios were easy to follow and were perceived as being relevant to the values that were identified. The value choices also varied across scenarios (see Table 2.1), meaning that the design was not intended to assess trends in

Table 2.1

Conflict Scenarios in Experiment 1

Scenario	Value Conflict
1	*Helpfulness vs. Wealth*
Helpfulness:	High promotion = donate money to orphanages in a third world country to ensure they are supplied with sufficient food and water
	Low promotion = donate money to a charity that saves cultural and historic pieces of art in a third world country
Wealth:	High threat = donate £50
	Low threat = donate £10
Consequences:	High threat = donate money yourself
	Low threat = advise a friend whether she should donate the money
2	*Exciting life vs. True Friendship*
Exciting Life:	High threat = cancel your month-long expedition to the Himalayas the day before you leave
	Low threat = cancel your tour of local tourist attractions the day before you leave
True Friendship:	High promotion = cancel your trip because your best friend, who has no surviving close family, has asked you to check on her while she is in hospital having an operation
	Low promotion = cancel your trip because someone you know from your course has asked you to check on her while she is in hospital having an operation
Consequences:	High threat: make the decision yourself
	Low threat: advise your flatmate on this decision
3	*Honesty vs. Social Justice*
Honesty:	High promotion = sue a dishonest legal firm who stole your money
	Low promotion = sue a legal firm who were not dishonest, but had been a victim of fraud
Social Justice:	High threat = the law suit would threaten the jobs and livelihoods of 30 staff
	Low threat = the law suit would not result in any loss of jobs
Consequences:	High threat: make the decision yourself
	Low threat: advise your friend on this decision

Table 2.1 continued:

Scenario	Value Conflict
4	*Helpfulness vs. Self-discipline*
Helpfulness:	High promotion = spend most of the day helping a friend with her dissertation the day before your exam Low promotion = spend half an hour helping a friend with her dissertation the day before your exam
Self-discipline:	High threat = the friend needs help because she went out and got drunk the night before Low threat = the friend needs help because she has been unwell
Consequences:	High threat: make the decision yourself Low threat: advise your flatmate on this decision

Note. For all scenarios, participants were presented with the choice between following one course of action or not, e.g., for Scenario 1, "Donate" or "Not Donate."

the *type* of value choices (e.g., helpfulness vs. wealth). Instead, I coded participants' decisions based on the arbitrary presentation of the options. Below the scenario, the choice of options was presented to participants on either side of the page: choice of the left option was coded as 0 and choice of the right option was coded as 1. Participants were also asked to rate the likelihood of making this decision on a six-point scale anchored from 1 (definitely) to 6 (definitely not). Participants were then asked: "Why did you make this choice? Please give your reasons for this decision below."

Finally, the dilemmas were re-presented to participants, each followed by three further questions. These items asked participants to rate the extent to which they considered each of the two manipulated values to be important in their decision and to rate the extent to which they considered whether they or someone else would receive the consequences of the decision. Participants responded to each item using a six-point scale anchored by 1 (totally irrelevant) to 6 (extremely important). These

more specific questions were placed after the initial presentation of all of the scenarios to avoid drawing attention to the specific values and consequences before participants made their decisions. In this way, it is unlikely that participants were aware of what was expected; individual participants received a short story and were not explicitly made aware that two values were being put in conflict. In addition, participants were not asked to choose between the values, only to choose whether or not to take a particular course of action.

2.3.2 Results

Binary Choices

As shown in Table 2.1, different social values were used in the four scenarios and, consequently, the analyses were conducted on each scenario separately. To analyse the binary choices, I examined each scenario using hierarchical logistic regressions. The first step in each analysis included the value promotion manipulations and the consequences factor as predictors (coded 0 or 1). The interaction terms were added in the second step.

Analyses of the main effects revealed a significant impact of at least one of the value manipulations in each scenario. As shown in Table 2.2, the odds ratios revealed that participants were more likely to choose in favour of a value in the conditions where the value was maximally promoted (or threatened) than in the condition where the value was less promoted (or threatened). For example, the odds in favour of donating the money were 5 times higher when the value of helpfulness was highly promoted (helping save starving children) than when the value was promoted to a lesser degree (helping save historical artefacts). There were no significant effects of the consequences manipulation. However, in response to

Table 2.2

Effects of the Values and Consequences Manipulations on Participants' Binary Decisions in Experiment 1

Scenario	Manipulation	Odds	*t*-statistic	*p*-value
Value manipulation				
1	helpfulness	5.03	3.01	< .01
1	wealth	4.04	2.62	< .01
2	exciting life	5.83	3.36	< .01
3	honesty	3.27	2.47	< .05
4	helpfulness	5.29	3.04	< .05
4	self-discipline	5.29	3.04	< .05
Consequences manipulation				
1	self vs. other	2.49	1.74	.08

Notes. $df = 76$, $N = 80$

For ease of understanding, all odds ratios are coded positively. For all manipulations, the higher the threat or promotion, the higher the odds of participants making a choice in line with that value.

Scenario 1, there was a marginal effect of the consequences manipulation, such that the odds in favour of participants not donating the money were 2.5 times higher for participants in the condition involving the self (high consequences) than for participants making decisions for others (low consequences). All of the interaction terms were non-significant.

Decision Probability Ratings

Hierarchical multiple regression analyses were used to analyse participants' ratings of the likelihood of making their decision. The first step included the value promotion manipulations and the consequences factor as predictors. The interaction terms were added in the second step.

Table 2.3

Effects of the Values and Consequences Manipulations on Participants' Decision Probability Ratings in Experiment 1

Scenario	Manipulation	*b*	*t*-statistic	*p*-value
Value manipulation				
1	helpfulness	- 1.15	- 4.11	< .001
1	wealth	0.65	2.32	< .05
2	exciting life	1.18	4.07	< .001
2	true friendship	- 0.58	- 1.99	.05
3	honesty	- 0.80	- 2.65	< .05
4	helpfulness	1.33	4.14	< .001
4	self-discipline	1.03	3.20	< .01

Note. $df = 76$, $N = 80$

Table 2.3 shows the *b* coefficients, *t* statistics, and *p* values for the effects of the value and consequences manipulations on participants' decisions. Similar to the results of the binary choice analyses, participants were significantly more certain that they would choose in favour of the maximally promoted values than the less strongly promoted values. There were no significant effects of the consequences manipulation. All of the interaction terms were non-significant.

Value Influence Ratings

I repeated the analyses of the binary choices with participants' ratings of the influence of each value and consequences factor as continuous (centred) predictors. As shown in Table 2.4, virtually all of participants' ratings of the influence of the values in their decisions significantly predicted their actual choices. This result supports my choice of value concept terms as labels for the manipulation variables (e.g., "honesty" for the act of suing when a solicitor stole money) and more importantly, indicates that participants were aware of the extent to which they

Table 2.4

Effects of Participants' Ratings of the Influence of the Value and Consequences Manipulations on their Binary Decisions in Experiment 1

Scenario	Influence of	Odds	*t*-statistic	*p*-value
Value manipulation				
1	helpfulness	3.24	3.46	< .01
1	wealth	1.70	2.52	< .05
2	exciting life	2.26	3.70	< .001
2	true friendship	3.68	3.21	< .01
3	social justice	1.48	1.94	.05
4	helpfulness	3.53	3.15	< .01
4	self-discipline	2.90	3.14	< .01
Consequences manipulation				
1	self vs. other	1.67	2.62	.01

Note. $df = 76$, $N = 80$

considered the values when making their decisions. There was also a significant effect of participants' ratings of the influence of the self-other consequences manipulation for their decision in Scenario 1 (see Table 2.4). Thus, participants were aware of the role of the consequences in their decision for the sole scenario that elicited some (weak) evidence for an effect of consequences. As shown in Table 2.5, a virtually identical pattern was obtained when I used the value influence ratings as continuous predictors of the decision probability ratings.

Decision Reasons

Participants were asked to list their reasons for their choices. On average, participants gave 1.7 reasons for each decision. Blind to the condition of the participants, I coded each reason as directly pertaining to the manipulation of the values (e.g., the importance of friendship, the dishonesty of the company) or to

Table 2.5

Effects of Participants' Ratings of the Influence of the Value and Consequences Manipulations on their Decision Probability Ratings in Experiment 1

Scenario	Influence of	*b*	*t*-statistic	*p*-value
Value manipulation				
1	helpfulness	- 0.44	- 4.36	< .001
1	wealth	0.23	2.68	< .01
2	exciting life	0.41	5.19	< .001
2	friendship	- 0.40	- 3.47	< .01
4	helpfulness	- 0.50	- 4.27	< .001
4	self-discipline	0.44	3.14	< .01
Consequences manipulation				
1	self vs. other	- 0.20	- 2.47	< .05
2	self vs. other	- 0.27	- 3.49	< .01

Note. $df = 76$, $N = 80$

specific consequences of the decision for the self or other (e.g., failing the exam). Participants were significantly more likely to mention values in the scenario than consequences, $t\ (79) = 14.68$, $p < .001$. This result is consistent with the view that values are important and salient in situations of value conflict (Schwartz, 1996). In fact, all but three participants explicitly used the manipulated values to justify at least one of their decisions.

2.3.3 Discussion

Experiment 1 showed that values are important guides to decision-making in a situation that requires careful consideration of decisions. Although this is consistent with the predictions of previous research, this is the first time that the causal effects of value threat and consequences have been investigated simultaneously in the

context of value conflict. Furthermore, although there was less evidence for reasoning-by-consequences, there was some indication of it in one of the four scenarios. It is likely that the scenarios showed no significant evidence of an impact of consequences because of the normative pressure to make the 'acceptable' choice (and hence consider the values) in an experiment that obviously focused on decision-making. However, this pressure is not sufficient to explain the impact of the value manipulations in the different conditions. This research provides the first empirical evidence that participants are aware of the influence that value threat and promotion have on their decision-making. Participants were not explicitly told about the two values involved in the scenarios and they were not asked to choose between the values, but rather were asked to choose whether or not to follow a particular course of action. Nonetheless, participants identified the values as being the bases for their decisions. Finally, values were used in justifications for their decisions by almost all participants.

2.4 Experiment 2

Experiment 2 examined reasoning by principles and reasoning by consequences in a context that did not include pressure to form decisions carefully. In this experiment, a value conflict dilemma was presented within an impression formation task, wherein participants' role was simply to form an impression of a fellow student (Beisswanger et al., 2003). This impression formation task served to direct participants' focus away from the normative pressure of making the right or acceptable choice. In addition, participants in Experiment 2 were not asked to justify their choices, further reducing any normative pressure to consider values. Given my

examination of the factors influencing the use of values versus the use of consequences, I focused on the scenario (Scenario 1) that had previously provided the only (weak) evidence for a role of consequences in Experiment 1, in addition to finding strong evidence for the use of values. Given the reduction in normative pressure, I predicted that participants would exhibit reasoning by consequences and less reasoning by principles.

2.4.1 Method

Participants

Participants were 60 psychology undergraduates (51 women, 9 men) who participated for course credit.

Procedure

Participants were told that the study was examining how people formed impressions of others. They were presented with a brief description of an individual, Rob, including personal details (e.g., age, interests) and information about one of a number of charities for which he volunteered.[1] The description of the charity was essentially a modified version of Scenario 1 in Experiment 1. Participants were told that the charity was in need of extra donations to continue its work and Rob asked participants to either donate £50 of their own money (self: high personal

[1] The information about Rob's work for other charities was added in order to make participants unlikely to view Rob as being somehow obliged to contribute. This safeguard proved effective in that a number of participants, in their justifications in Experiment 3, noted that Rob had done sufficient work for the charity already. In addition, ratings for advising Rob to donate to the charity himself were far from ceiling. Also, a pilot test revealed that participants did not think that Rob should feel obliged to donate to the charity irrespective of whether Rob was a volunteer ($M = 4.45$) or was totally uninvolved in the charity ($M = 3.70$), $F(1, 38) = .64$, *ns* (scale neutral point = 5.5).

consequences) or to advise him whether he should donate £50 of his money (other: low personal consequences). In this version, the threat to the value of wealth was held constant, such that a fixed sum of £50 was requested by the charity, as in the prior high value threat condition. This change increased the proportion of high value conflict cells (which were my focal interest) and reduced the experiment to a 2 (helpfulness manipulation: High vs. Low promotion) x 2 (consequences manipulation: self/ High vs. other/ Low) between-subjects design. The promotion of helpfulness was manipulated in an identical fashion to Experiment 1 (i.e., the charity saved children or historical artefacts).

After reading the description, participants were asked to complete four filler questions asking them to rate their impression of Rob, such as "How do you feel towards Rob?" and "Would you like to be friends with Rob?" These items were included solely to aid my cover story and focus attention away from the decision and are not discussed further.

After completing the impression formation questions, participants were informed that "In order for us to make an accurate assessment of your attitude to Rob, we have to control for the extent to which you agree with the cause he supports." They then completed binary choice and decision probability ratings identical to those in Experiment 1. Participants were *not* asked to list reasons for their decision (unlike in Experiment 1).

2.4.2 Results

Scenario Manipulation

Binary Choice. A hierarchical logistic regression analysis was conducted on participants' binary choice for the scenario. The predictors in the first step were the

manipulations of helpfulness and self-other consequences. The interaction between these variables was added in the second step, but was non-significant ($p > .70$). The first step model was significant, χ^2 (2, $N = 60$) = 9.45, $p < .01$, however. This model revealed a significant effect of the consequences manipulation, t (57) = 2.78, $p < .01$, such that the odds in favour of donating money were 6 times higher for participants advising Rob to donate than for participants donating the money themselves. There was no significant effect of the helpfulness manipulation that had been much stronger in the same scenario in Experiment 1, t (57) = 1.01, *ns*. That is, there was no effect of values in Experiment 2.

Decision probability ratings. A hierarchical multiple regression analysis was conducted on participants' ratings of decision probability. The same steps were used as for the logistic regression analyses and, again, the interaction in the second step was non-significant ($p > .45$). In the first step, there was a significant effect of the consequences manipulation, $b = 1.02$, t (57) = 3.17, $p < .01$. Consistent with the results of the logistic regression analysis, participants believed that they would be more likely to advise Rob to donate £50 to the charity than donate the money themselves. The effect of the helpfulness manipulation was again non-significant ($p > .26$).

2.4.3 Discussion

Experiment 2 found reasoning by consequences using a dilemma that had previously revealed strong evidence for reasoning by principles. The key differences between Experiment 2 and the previous experiment using this dilemma are that the dilemma was embedded within an impression formation task and participants were not asked to explain their decision. These changes placed less stress on participants'

reasoning about the dilemma, enabling them to escape any normative pressure to use reasoning by principles. The result was more reliance on consequences in decision-making. Therefore, it seems parsimonious to assume that the 'aboutness principle' plays an important role in participants' perception of the decisions they face, and people make decisions on the basis of both values and consequences.

2.5 Experiment 3

Experiment 3 tested whether the addition of the expectation to justify decisions in the context of the distracting goal would be sufficient to re-elicit use of reasoning by principles. In this context, reasoning by principles may add to or qualify (i.e., moderate) the use of reasoning by consequences.

2.5.1 Method

Participants

Participants were 72 psychology undergraduates (70 women, 2 men) who participated for course credit. Two additional participants were eliminated from analyses because they failed to complete all sections of the study.

Procedure

Participants were randomly assigned to either a replication of Experiment 2 or a slight modification of it. In this modification, participants were told that their primary task was to form an impression of an individual, Rob. The researcher told half of the participants that, after reading the description of the individual, they would be asked to make a decision and that they would have to justify that decision. Participants then read one of the manipulated versions of Scenario 1 from Experiment

2. Next, participants completed the impression formation questions, the charity donation decision, and the decision probability rating. Participants who had previously been told that they would have to justify their decisions then completed the open-ended question about their reasons for choosing whether or not to donate the money, using the same format and order as in the prior experiments. These procedures constituted a between-subjects 2 (helpfulness manipulation: High vs. Low promotion) x 2 (consequences manipulation: self vs. other) x 2 (with vs. without justification) design.

2.5.2 *Results*

Scenario Manipulations

The analyses were similar to those used in Experiment 2, except that the additional variable of justification was included in the first step of the regressions, and the additional interactions with justification were added in the second step.

Binary choice. The logistic regression analyses of participants' binary choice indicated that the model in step one was significant, $\chi^2 = (3, N = 72) = 26.40, p < .001$, and that the model including step two was also significant, $\chi^2 = (7, N = 72) = 31.58, p < .001$. Although there were no significant main effects of the helpfulness, t (64) = 0.52, *ns*, or the justification manipulations, t (64) = 0.62, *ns*, there was a significant main effect of the consequences manipulation, t (64) = 2.34, $p < .05$, such that the odds in favour of donating money were 14 times higher for participants advising Rob than for participants donating the money themselves. This main effect was moderated by a marginal three-way value x consequences x justification interaction, t (64) = 1.78, $p = .07$, in step two. I interpreted this interaction because the same interaction pattern was significant in my analysis of the decision probability

ratings (below). To interpret the interaction, simple effects were compared within each level of justification. When participants were not required to justify their decision, the two-way value x consequences interaction was not significant, t (32) = .74, *ns*. However, there was an effect of the consequences manipulation t (33) = 3.59, $p < .05$, such that the odds in favour of donating the money were 25 times higher for participants advising Rob than for participants donating the money themselves. This replicates the results of Experiment 2.

When participants were required to justify their decision however, there was a marginal two-way value x consequences interaction, t (32) = 1.81, $p < .07$, such that there was an effect of the consequences manipulation only at low levels of helpfulness promotion, t (16) = 2.77, $p < .05$, such that the odds in favour of donating the money were 64 times higher for participants advising Rob than for participants donating the money themselves. When participants were required to justify their decision at high levels of helpfulness promotion, there was no significant effect of the consequences manipulation, t (17) = 0.73, $p > .45$. Thus, the value of helpfulness attenuated the effects of consequences on participants' decisions *only* when participants were asked to justify their decision.

Decision probability ratings. Consistent with the binary choice findings and the results of Experiment 2, the multiple regression analyses on the decision probability ratings revealed a main effect of the self-other manipulation, b = 1.54, t (64) = 2.85, $p < .01$, such that participants were more likely to advise Rob to donate the money ('Low' consequences condition) than they were to donate the money themselves ('High' consequences condition). There were no effects of the helpfulness, b = -.09, t (64) = -.30, *ns*, or the justification manipulations, b 0.10, t (64) = 0.35, *ns*. Also consistent with the binary choice findings, the self-other main effect

was qualified by a significant three-way interaction, $b = -2.78$, $t(64) = -2.52$, $p < .05$ (see Figure 2.1). When the justification and no-justification conditions were analysed separately, there was a significant main effect of the self-other manipulation in the no justification condition, $b = 1.90$, $t(33) = 5.28$, $p < .001$, such that participants were more likely to advise Rob to donate the money than to donate the money themselves (see lower section of Figure 2.1). The two-way interaction for these participants was non-significant ($p > .30$). The same main effect of the self-other manipulation was present in the justification condition, $b = 2.11$, $t(32) = 3.54$, $p < .005$, but this main effect was moderated by a significant two-way helpfulness x self-other interaction, $b = -1.89$, $t(32) = -2.24$, $p < .05$. This interaction was such that this tendency to choose more charity from others was moderated by the principle of helpfulness: when there was low promotion of helpfulness, participants were less likely to favour self-donation than donations from Rob, but when there was high promotion of helpfulness, participants were equally likely to advise Rob to donate as to donate themselves (see upper section of Figure 2.1).

Decision Reasoning

Participants in the justification condition were asked to list their reasons for their decision. Participants listed an average of 2.5 reasons. As a manipulation check, the number of 'self' references (e.g., I, me, my) and the number of 'Rob' references (e.g., Rob, he, his) in participants' reasons were counted. A one-way Analysis of Variance (ANOVA) revealed that participants made significantly more self-references in the self condition ($M = 2.3$) than in the other condition ($M = 0.44$), $F(1, 34) = 15.50$, $p < .001$. Similarly, a second one-way ANOVA showed that participants made significantly more references to Rob in the other condition ($M = 2.9$) than in the self condition ($M = 1.2$), $F(1, 34) = 6.30$, $p < .05$. An independent rater and I coded

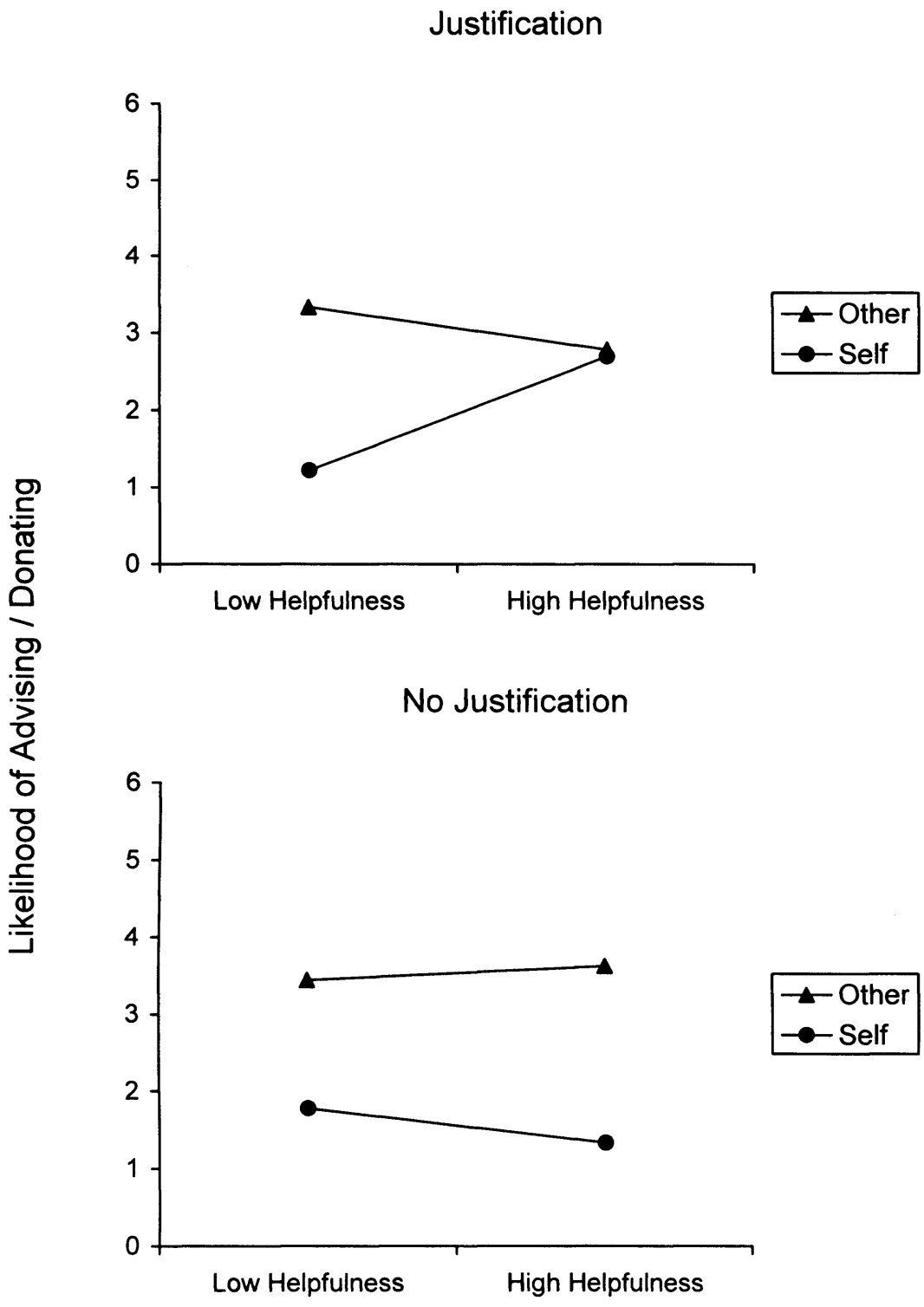

Figure 2.1. Likelihood of donating to the charity as a function of level of helpfulness promotion and the self-other manipulation for the two justification conditions in Experiment 3.

participants' reasons as relevant to the values manipulation (e.g., the cause (artefacts) is not a very needy one) or consequences (e.g., he might feel guilty if he did not donate) while blind to their condition. The overall inter-rater reliability was good (Cronbach's $\alpha = .81$). Consistent with Experiment 2, participants were significantly more likely to use values in justifications than to cite something that could be construed as consequences, $t\ (34) = 7.39, p < .001$.[2] In fact, only six participants did not mention at least one of the values in their justifications.

2.5.3 Discussion

Experiment 3 replicated the results of Experiment 2 by again finding reasoning by consequences in a context that made participants' decisions a secondary task. However, the added expectation to justify the decision attenuated the impact of the consequences; participants used values in their decision-making when they expected to explain their decision. This effect should not be confused with findings that people behave differently when observed by or in the presence of others as opposed to when they are not (see Kent, 1994, for discussion); a simple self-presentation effect whereby participants are trying to 'look good' cannot explain the results. Such a pressure was present in both conditions, with justification and without. It is important to note that values are viewed positively and people attempt to act in accordance with their values (Rokeach, 1973). Therefore a simple self-presentation

[2] Both raters were quite liberal in the coding of consequences in order to give them the best chance to appear. For example, feeling guilt as a result of non-donation was seen as an aversive consequence, even though guilt could be viewed as a reaction to value-incongruence (Higgins, 2004). Thus, this evidence suggests that values are used to a greater extent than consequences in people's justifications of their decisions despite allowing some potential value indicators to 'count' as consequences.

influence would facilitate a use of principles in all conditions and not solely in the justification condition, which included the high helpfulness manipulation. Moreover, if self-presentation was a factor in participants' decisions, one would not expect people to anticipate *less* prosocial behaviour for the self than for another; people normally attempt to enhance perceptions of their warmth and competence relative to others (Leary & Kowalski, 1990). Thus, both values and consequences play a role in decision-making.

2.6 Discussion

My investigation of the use of social values progressed across three experiments. Using several choice dilemmas, I examined whether people base their decisions on the principles (values) involved in the situation or on value-irrelevant consequences. Experiment 1 revealed evidence that strongly supported the importance of values in decision-making and also found evidence of their explicit use in participants' justifications for their decisions. Experiment 2 placed participants' decisions about a value dilemma in a context that made their choice secondary to the experimental task, while not requesting explanations for decisions. In this context, the results indicated strong use of consequential reasoning, even though the same choice dilemma had revealed use of values in Experiment 1. Experiment 3 again examined responses to this dilemma in a context that made the choice preference less central to the experimental task, while including a condition in which participants were told to expect to justify their decisions. In this condition, values attenuated the use of reasoning by consequences. These results indicate that reasoning by principles and

reasoning by consequences can both occur; their use depends vitally on the presence of distracting goals and the expectation of the need to justify the decision.[3]

These results have important implications for the issues discussed in Chapter 1. Most importantly, this is the first empirical examination of the use of social values using dilemmas that have manipulated both the values involved and the value-irrelevant consequences of the decisions. This examination of the causal effects and simultaneous impact of these variables is the first to investigate directly the issue of how values are used in more complex terms. The evidence suggests that values do impact behaviour and decision-making in an *a priori* fashion and has highlighted at least one important factor that influences when values are used in this way; the social pressure of having to explain the decision. Moreover, the current research has provided evidence that values are also used as justifications. For example, in Experiment 1, all but three participants used values to justify their behaviour. Therefore, this is evidence that values are used *both* as principles *and* as justifications.

These findings suggest that pressure to explain a decision plays an important role in use of the 'aboutness' principle (Higgins, 1998a) to engage in reasoning by principles or reasoning by consequences. When people are asked to justify their decision, they view the decision situation as being 'about' the values involved. They may perceive the values as being the focus of any decision to be made and, therefore, base their decision on the values. This is consistent with other findings in decision-making research (e.g., Huber & Seiser, 2001), which suggest that individuals who

[3] As in much psychological research, my sample included predominantly female undergraduates. Nonetheless, there were enough male participants to examine potential effects of sex of participants across experiments. No effects relating to sex of participant were noted, suggesting that a predominantly male sample would have yielded similar results.

anticipate justifying their decision increase their use of utilized information; engaging in a more elaborate choice process. In contrast, when people's attention is focused on another task and they do not have to explain their decision, people perceive the situation as being 'about' the personal consequences of the decision (Experiment 2). This is consistent with Maslow's (1970) hierarchy of needs, which would suggest that consequences are more basic than the use of principles. As such, consequences would be more automatically used in decision-making than higher-order principles that require thought and conscious consideration. This automatic operation is also consistent with the fact that the effects of consequences are replete in psychology (e.g., Boatsman, Moeckel, & Pei, 1997; O'Neill, Glasgow & McCaul, 1983; Snyder & Patterson, 1986).

Nevertheless, it is important to consider potential criticisms of these conclusions. One potential alternative explanation of the results is that participants may perceive the involvement of additional values in the different conditions as *dependent* on the involvement of the self. However, this explanation is not consistent with the results of Experiment 1, which showed a strong effect of the value manipulations *irrespective* of the consequences manipulation. Furthermore, it is important to note that this possibility was eliminated by pilot work. One of the pilot studies presented a subsection of the scenarios used in Experiment 1 to 20 participants and asked them to rate the extent to which the value manipulation would influence their decision in each scenario. Results indicated that the manipulated values were salient and important in each of the scenarios. In addition, participants did not list additional values in either of the experiments that requested justification for decisions (Experiment 1 and Experiment 3). These findings indicate that the

impact of the consequences manipulation cannot be explained by the additional involvement of values that were not manipulated.

A further issue is whether similar effects of personal consequences and justification would be found in real, rather than hypothetical, decisions. Imagined scenarios cannot be as powerfully relevant to the self as actual situations, because individuals are not as involved in imagined situations as they are in real life. However, the use of imagined scenarios enables the elimination of excessive situational variance (see Schwartz, 1996) and, in fact, imagined procedures have been found to yield very similar results to those obtained using online situations (Robinson & Clore, 2001; see also Laner, Benin, & Ventrone, 2001; Davis, Mitchell, Hall, Lothert, Snapp, & Meyer, 1999). In addition, the results suggest that the scenarios elicited a sufficient level of personal relevance to discover reasoning by consequences and reasoning by principles. Moreover, the effects of personal consequences were entirely consistent with past research that has looked at self-other differences in relationship decisions (Beisswanger et al., 2003), monetary decisions (Stone, Yates, & Caruthers, 2002), and career choices in naturalistic settings (Kray & Gonzalez, 1999). Thus, the imagined scenarios in this research were sufficient to evoke a role of consequences, despite the weaker power of consequences in imagined contexts.

I expect that these results have implications for several other strands of research. Moral judgments are different from value judgments, because moral judgments are prescriptive beliefs about what *everyone* should or should not do. For example, people believe that everyone should support their children and that everyone should not kill out of greed or envy. In contrast, although we *like* others to follow our values, we do not generally regard it as unacceptable when they do not. For example, in my scenarios, participants wanted Rob to donate, but also showed

tolerance and understanding of not donating, especially as the alternative option supported an alternative value. Despite this vital difference, there may be an important parallel in *how* moral and value judgments are formed. In particular, the results can be linked to Haidt's (2001) notion of two separate systems involved in moral judgment. In his social intuitionist model, moral judgment is generally the result of a fast, holistic, and affective evaluation. A separate, deliberate and conscious reasoning system is typically restricted to providing post hoc justification for the conclusion already reached by the intuitive system.

Consistent with these ideas, there should be greater effects of consequences on value judgments in an 'impression formation' task, which, by nature, would seem to encourage holistic, impressionistic and intuitive processing. It is also in keeping with these ideas that the influence of consequences should be affected by the expectation of having to provide a justification, in that justification necessarily involves the reasoning system. Haidt's model similarly allows for a contribution of the reasoning system to the actual outcome of a moral judgment in situations, such as a formal moral interview (Haidt, 2001, p. 819). However, the results indicate that, in the context of value judgments, it is not even necessary for the cognitive guides (i.e., values) to be explicitly salient before guiding a judgment.

A second relevant strand of research has directly investigated peoples' sensitivity to consequences. The present finding of an influence of consequences stands in contrast to several studies that have failed to find such effects for broadly moral judgments. For example, Sunstein, Schkade and Kahneman (2000) found that participants' assignment of punitive damages in personal injury cases was not influenced by considerations of deterrence. This finding is in line with several other studies on punishment by Baron and colleagues (Baron & Ritov, 1993; Baron, Gowda

& Kunreuther, 1993). In addition, Baron (1994) cites evidence from a wide variety of other contexts in which consequentialist considerations fail to influence judgments (cf. Nord, 1992). For example, Ritov and Baron (1990) found that participants are unwilling to propose the use of a vaccine with potentially lethal side-effects, despite the fact that it would save more lives than would be impacted by the side-effects. In this paradigm, the net consequences of the vaccine are undeniably positive, but people do not decide consistently with them. Hence, the studies that have failed to find sensitivity to consequences have typically emphasised the 'irrationality' of participants. With regards to this issue, it is worth noting that the self-other distinction that people are sensitive to in this research is not one that utilitarian philosophers typically think they *ought* to use. Yet, the self-other distinction, with the distinct consequences it captures, is used nonetheless.

Moving further afield, one particularly interesting application of the present research lies within the field of political science. For example, in political elections, leaders unable to refer to concrete gains or losses for the population often turn their rhetoric to focus on values (see e.g., Gordon & Miller, 2004; this use of values in rhetoric and particularly in political propaganda is addressed in Chapter 4). This seems to be particularly true at times of war and increased political pressure. For example, in the US and Britain's entry into the war on Iraq, speeches emphasised the negative consequences of ignoring the "imminent threat" and the potentially catastrophic outcome of not taking action against the Iraqi leadership. However, leaders' use of consequences in the rhetoric has been attenuated by an emphasis on principles (social values) as increasing pressure is applied to justify the decision to go to war. This rhetoric has included phrases related to attacks on freedom and independence, whilst appealing to social values such as honesty, truth, and justice to

justify military action. These real world incidents anecdotally corroborate the findings of the present research, where values were explicitly cited in participants' justifications for their decisions to a greater extent than consequences.[4]

2.7 Chapter Summary

The present research provides the first direct empirical examination of the extent to which people use values and consequences in their reasoning about value dilemmas. The results support the hypothesis that, consistent with the quotation presented at the outset, people base decisions on the principles involved *and* on the consequences of the decision. In discussion about the role of principles in legal theory, there has been a sharp distinction between a decision-making phase and subsequent justification of the decision reached (see Hart, 1961). This is mirrored within social psychology by the debate between the use of social values as principles or justifications. The results show how closely these two components interact, in that the mere expectation of having to explain the decision subsequently altered, in subtle ways, the decision itself. In these contexts, values have a real effect on decisions that goes beyond their use as something merely to justify a decision that has pleasing outcomes for the self. Thus, values are more than mere justifications for a decision made on the basis of value-irrelevant consequences. However, the use of values does importantly depend on whether people are focussed on the decision and whether they expect to explain their decision.

[4] Even if we were to assume that the references to "imminent threat" are actually thinly veiled appeals to the value of 'National Security,' the fact remains that leaders' use of this argument has decreased, and their focus on other values has increased in breadth (i.e., more values) and intensity.

The research presented in this Chapter has made an important step to furthering knowledge about the ways in which values are used. However, there still remains the second issue raised in Chapter 1; *how* do people bridge the gap between abstract values and specific contexts. This issue will be addressed in the next chapter.

Chapter 3
Application: Abstract to Specific

3.1 Chapter Overview

The aim of this Chapter is to address how abstract social values are projected on to specific situations in order to influence behaviour. I propose that abstract values must be instantiated within the situation in order for them to be used to guide behaviour and decision-making. Consequently, the manipulation of value instantiation might influence subsequent behaviour. Therefore, across four experiments, I investigated the hypothesis that reflecting upon a typical, rather than an atypical, instantiation of a value within the same situational context has differential impacts on subsequent behaviour. The results showed that typicality has two effects. Typicality influences the types of reasons that participants list for a value and the perceived strength of the reasons (Experiments 4 and 5). Even more importantly, participants engaged in more egalitarian behaviour following a typical instantiation of the value of equality compared to an atypical instantiation or a control condition that simply made the value salient (Experiments 4 - 7). Together, these experiments provide the first direct evidence of value instantiation processes in decision-making and thus provide crucial evidence about *how* values are used in decision-making and behaviour.

3.2 From Abstract to Specific

"When your values are clear to you, making decisions becomes easier."

(Roy Disney, b. 1930)

This quotation suggests that values are an important guide in life: When people are clear about their values, they are able to make decisions with a degree of ease because of the guidance that their values provide. As reviewed in Chapter 1, this idea is consistent with the bulk of empirical research investigating values (e.g., Schwartz, 1992, 1996), which suggests that values are abstract *trans-situational goals* that serve as guiding principles in people's lives and represent universal requirements of human existence, including biological, social, and group survival goals (Schwartz, 1992; Schwartz & Bilsky, 1987). Indeed, values are held to be prescriptive principles that guide decision-making and there is evidence that values guide attitudes and behaviour across diverse contexts (Homer & Kahle, 1988; Maio & Olson, 1994; Rokeach, 1973; Schwartz, 1996; see also Olson & Zanna, 1993), while serving as standards by which people can judge their own actions and the actions of others (see Rohan, 2000). In Chapter 2, I provided evidence that values are indeed used as guides for behaviour across diverse dilemmas when people focus on the decision at hand. Values can provide this broad guidance across a wealth of widely differing situations because they are *abstract* principles or rules that develop with experience (Rokeach, 1973).

Given these correlations between values and behaviour, the effect of priming values on subsequent behaviour (Verplanken & Holland, 2002), and the evidence of the use of values over and above considerations of personal consequences (see Chapter 2), the next step is to explain *how* values have this effect. This step raises the

important question of the processes through which values are actually applied to a situation. Some research indicates that values function by altering the perceived valence (i.e., negativity versus positivity) of objects (Feather, 1995; Verplanken & Holland, 2002), but no research has yet revealed *how* abstract values have this effect. Bringing a value to bear in a specific situation means that the gap from the abstract representation of the value to the specific representation of the situation must be bridged. This task is far from trivial and the processes that underlie this bridging have not been addressed.

Applying the value of equality to a concrete situation, for example, requires first of all that some quantity is recognized as unequal. Yet, not all inequalities are value-relevant and most probably are not. Observing two speakers, we may notice that one is taller than the other, one's hair is longer than the other's, one's shirt is a darker colour, and so on. However, these differences are likely to be relevant to the importance of equality only when there are inequalities of *outcome*. For example, if one of the two speakers is awarded significantly more applause than the other, this may trigger the value of equality. At this point, however, the task of bringing the value to bear has only begun. The crucial question for evaluation is whether the applause *should* have actually been equal. There could be numerous reasons why the differential treatment is not a violation of equality (e.g., different audiences were present). Furthermore, other values, such as the need to support the weak or disenfranchised, could also be relevant and oppose a decision based on equality in the given context. Indeed, explicit examples of these difficulties can be found in the complex judicial explanations of legal decisions involving fundamental values and rights, whether these be 'equality', 'freedom', or the 'sanctity of life' (e.g., Conte, Davidson, & Burchill, 2004). By contrast, much value-guided behaviour in day-to-

day life involves entirely tacit mental processes. Nevertheless, the same bridging task has to be achieved in both cases, and there is no prior evidence about the nature of these mental processes.

Elucidating these processes is necessary for an understanding of when values are applied and when they are avoided. I propose that individuals must *instantiate* a value in order to be able to relate it to the context in which it appears and that the specific instantiation within that context will influence the subsequent application of that value. Without instantiation, an abstract value cannot make sense within a situation. For example, without imagining the limitations that anti-terrorism measures would impose on people's freedom, it is difficult to incorporate the value of freedom into one's evaluation of such policies. Consistent with this proposal, studies of cognitive reasoning have revealed that people avoid reasoning about abstractions (e.g., Griggs & Cox, 1982) and prefer to use specific examples or instances when making judgments (e.g., Johnson-Laird, Legrenzi, & Sonino-Legrenzi, 1972).

Crucially, the abstract nature of values allows them to be instantiated in diverse ways and enables people to use or by-pass their values if they are seen to have an ill fit to the situation. For example, some people instantiate the value 'sanctity of life' in discussions of abortion, but these same people may not instantiate this value in the issue of capital punishment (and vice-versa). Similarly, an individual may perceive 'equality' as a requirement to treat diverse ethnic groups and men and women in the same manner, but fail to perceive 'equality' in the issue of discrimination against people who differ in other characteristics (e.g., height, weight, or handedness). The present research examines the impact of different types of value instantiation on participants' *subsequent* behaviour, thereby providing a vital glimpse

of how values as abstract representations come to influence behaviour in specific situations.

3.2.1 The Importance of Value Instantiation

Although past evidence has revealed that contemplation of conflicting values increases the complexity of reasoning about an issue (Tetlock, 1986), no past research has directly examined effects of value instantiation *per se* on reasoning and behaviour. The most pertinent evidence has examined the effects of elaborate versus non-elaborate value representations on behaviour. Specifically, Maio et al. (2001) found that elaborating the argumentative reasons for a value increased participants' subsequent pro-value behaviour. In one of their experiments, participants were asked to list reasons for the value of equality. Next, in an ostensibly distinct study, participants were asked to allocate points to two teams: their own team and another team. Despite having received substantial incentives to act in a discriminatory manner, participants who had considered reasons for the value of equality subsequently behaved in a significantly more egalitarian fashion than participants who had just been given a prior opportunity to restate the importance of equality to them. Moreover, Maio et al. (2001) predicted and found that the elaboration of cognitive support did not affect behaviour by increasing the personal importance of the value or by increasing the accessibility of the value from memory. Instead, they proposed that the elaboration of reasons for a value helps it to become more *concretely* instantiated. Consistent with this hypothesis, participants who listed more concrete instantiations of a value (e.g., describing affirmative action in the workplace) among their reasons exhibited more pro-value behaviour than participants who did

not list such instantiations. This finding provided initial evidence that the instantiation of values may play some role in how people use values.

However, the research did not directly manipulate the occurrence of concrete value instantiation, nor did it examine effects of the specific *content* of the instantiations. I expect that two equally concrete instantiations within a context might nevertheless have substantially different effects. One content factor that might moderate the effect of instantiations is whether these instantiations are typical or atypical for that value.

In the general literature on conceptual structure, typicality has been found to be an important variable (Rosch, 1973). Typical instantiations (e.g., robin) of a concept (e.g., bird) are categorised faster (e.g., Heinze, Muente, & Kutas, 1998; for a review, see Smith & Medin, 1981) and are more likely to be mentioned first when participants are asked to list all members of a category (Battig & Montague, 1969). Similarly, typical instantiations are verified more quickly and elicit lower brain activity than atypical instances and non-members of a category (Stuss, Sarazin, Leech, & Picton, 1983). Furthermore, Rosch (1973) found that typical instances of a category were more likely to serve as cognitive reference points than atypical instantiations. That is, people are more likely to refer to a typical instance of a category (e.g., a blackbird) when describing an atypical instance (e.g., a raven) than vice versa. Hence, there are reasons to expect that values might serve as stronger anchors of judgment and behaviour after people have considered a typical instantiation of the value (e.g., equality for women in the workplace) than after considering an atypical instantiation (e.g., equality for left handed people in the workplace).

Evidence for such a role of typicality would be important because, until now, the dominant view has been that values are trans-situational guiding principles that influence subsequent behaviour on a higher level than the individual situation (Bardi & Schwartz, 2003; Schwartz, 1992). If this is the case, the typicality of prior instantiations should not matter, or, with a more liberal interpretation of this view, different instantiations would operate through their impact on the emergent properties of the abstract value, such as its importance and centrality. However, if the typicality of a value instantiation *does* affect subsequent behaviour *and* operates through the instantiations themselves (not via properties of the abstract principle), it would be clear that the instantiations *per se* are of particular importance to theorising about values and their effects. This result would be of theoretical importance because it makes clear that the whole process of *how* values are brought to bear requires detailed attention in a way that has not previously been scrutinized.

The hypothesis that abstract values must be instantiated in order for them to be applied to a particular situation echoes some prior suggestions that values exist primarily as concrete instantiations for the purpose of justifying decisions made on the basis of other factors (Kristiansen & Zanna, 1988; Seligman & Katz, 1996; see discussion in Chapter 1). Unlike the prior suggestions, however, I propose that people *also* possess an abstract representation of the value, possibly formed from their total sets of instantiations, just as occurs in other types of concept learning. If indeed both levels of representation are important, this has implications for the rationality of people's value-based behaviour and consequences for numerous applied contexts. These implications will be elaborated after the description of the evidence testing this hypothesis.

3.2.2 Overview of Experiments

In the following four experiments, I investigated whether the typicality of a value instantiation influences behaviour promoting the value. In these experiments, participants considered a value instantiation and the effect of the instantiation on their behaviour was measured in an ostensibly separate, entirely unrelated, behavioural decision-making task. Experiment 4 tested whether the typicality of value instantiations affects qualitative aspects of participants' reasons for a value and their pro-value behaviour. Building on the results of Experiment 4, Experiment 5 tested whether the typicality of the value instantiation or qualitative aspects of the reasons that the instantiations produce affect behaviour. Experiment 6 did not involve reasons for values, but simply examined the effects of elaborated typical and atypical instantiations on behaviour. Finally, Experiment 7 used different typical and atypical instantiations to test the generalisability of the effect and examined potential influences of associated affective support and normative pressures on subsequent behaviour.

To establish comparable experimental control, all of the studies focused on instantiations supporting the value of equality within the same context. This value was selected because of its importance to many social psychological theories (e.g., Katz & Hass, 1988; Tyler, 2000) on a variety of topics (e.g., justice, prejudice, relative deprivation), its importance to the most influential models of values (Rokeach, 1973; Schwartz, 1992), and its fundamental importance to the global discourse about universal human rights (Conte et al., 2004). Because I wanted to make the instantiations highly relevant, I used pilot testing to select a single situation that was highly relevant to the value of equality and then manipulated typicality within that situation. In the pilot study, 12 participants were asked to list situations in

which they considered equality to be important. The most frequently mentioned situation (10 of 12 participants) involved the work place and hiring decisions. Therefore, discrimination in the workplace was used as the focus for both the typical and atypical instantiations.

In the first three experiments, the typical instantiation for this situation was discrimination between men and women, whereas the atypical instantiation focused on discrimination between right-handed and left-handed people. The ideal of equality as a principle applied clearly to *both* instances because both sex and handedness are arbitrary distinctions that should have no effect in the workplace situation identified. If the value of equality is considered as a rigid guiding principle (Schwartz, 1992), then the male candidate should be evaluated using the same criteria as the female candidate, similarly the left-handed candidate should be evaluated using the same criteria as the right-handed candidate. Although the left-handed/right-handed distinction is less familiar in this context, and in this sense atypical, handedness is at least as arbitrary a criterion for job selection as gender. Because the abstract value of equality is highly important to the participants and they see it as highly relevant to the situation, it is inconceivable that it would be unacceptable to discriminate between candidates on the basis of gender, but acceptable on the basis of handedness – the abstract value of equality does not distinguish between these cases.[5]

Despite this, I expected participants' behaviour to differ following a typical instantiation as opposed to an atypical instantiation or a control task in which the

[5] It is important to note a parallel between the concept learning research and the current experiments: all of the instances of the categories in the cognitive research fall within the broader concepts. For example, although robin is a typical instance of a bird and penguin is not, there is no doubt that they are both birds. Similarly, in the current research, the instantiations are instances of the value under examination and are therefore equally relevant. It is simply the typicality of the instances that varies.

value is just made salient. Specifically, because typical instantiations in general form stronger cognitive reference points, I expected participants to engage in more egalitarian (pro-value) behaviour following the typical instantiation than following an atypical instantiation or mere reminder of the importance of the abstract value. It was also conceivable that the distinctiveness of the atypical instantiation could lead to more subsequent pro-value behaviour by causing participants to engage in more extensive cognitive elaboration (i.e., justification and explanation) relevant to the instantiation. Either way, such typicality effects could occur directly at the level of the specific instantiation. If this is the case, then the typicality effect should not be mediated by any effect on numerous strength-related value properties that were included in the experiments, including ratings of value strength, value centrality, value certainty, and value relevance; that is, the effect of the typicality of the instantiation should not impact participants' behaviour by increasing or decreasing these properties. Alternatively, if the process underlying the use of values operates at the level of the superordinate, abstract value, then the typicality effect should be mediated by the strength-related properties of the abstract value representation (e.g., value importance, value centrality).

3.3 Experiment 4

Participants in this Experiment were asked to consider reasons for the value of equality in situations that used a typical or atypical instantiation of the value within the same context prior to measuring egalitarian behaviour. Between the manipulation and the behavioural measure, I assessed value importance, value strength, and participants' confidence in the reasons that they listed. I expected that participants

who considered reasons for the value with a typical instantiation would act in a manner more consistent with the value than if they had considered the value with an atypical instantiation or had considered no instantiation prior to completing the ratings that made the value salient (control).

3.3.1 Method

Participants

Participants were 90 undergraduate psychology students (76 women and 14 men) who participated for course credit or £4. Seven additional participants were eliminated from analyses because of failure to follow instructions.

Procedure

Participants took part in groups of between five and nine people, seated approximately five feet apart. All participants were informed that they would be taking part in a number of different studies that had been combined because the studies were short. The "first study" contained the manipulation; the "second study" contained seven questions assessing the importance and strength of the value of equality; and the "third study" contained a measure of intergroup discrimination. After completing the measures, funnel debriefing was implemented: participants were first asked generally about their impressions of the studies and then progressively more specific questions about the procedures. None of the participants indicated any suspicion of a connection between the studies.

Experimental Manipulation

Typical condition. Participants were informed that the "first study" looked at why social values are considered important in different situations. Participants were told that they would be presented with a randomly selected social value and

then asked to list reasons why it was important to consider that value in a specified situation. Participants were then presented with the situation "You must choose between a male and a female candidate for the position of Executive Vice President of a company" and were asked to give as many reasons as possible why the value of equality was important in *this* situation. Participants were given seven minutes to list their reasons on a page of lined paper and were asked to use the entire time.

Atypical condition. Participants in this condition followed a similar procedure to the typical condition, except that they were asked to list reasons for equality with an atypical instantiation of the value, rather than a typical instantiation. Specifically, the context involved choosing between a person who is right-handed and a person who is left-handed for the position of Executive Vice President of a company.

Control condition. Participants were informed that the "first study" was looking at reasoning about everyday choices. Participants were asked to imagine walking into their local coffee shop and ordering their favourite drink. They were then asked to give as many reasons as possible as to why they liked that particular beverage, using a page of lined paper. Participants were given seven minutes to list their reasons and were asked to use the entire time. (The value of equality was then made salient using the value measures described below.)

Confidence in Reasons

After listing their reasons (but still as part of the first study), participants in all conditions were asked to re-read the reasons that they had listed and to place markings (e.g., "/") to denote where each reason began and ended. Participants then rated how confident they felt about each reason by placing a number from 1 (not at all

confident) to 6 (extremely confident) beside it. Each participant's ratings were then averaged across their reasons.

Value Measures

Participants were informed that the purpose of the "second study" was to assess the importance and strength of various social values to students. Participants in the typical and atypical conditions were informed that they would be presented with the same randomly selected social value for which they had previously listed reasons. Participants in the control condition were told that the social value was randomly selected. In reality, all participants were presented with questions about the value of equality. The first item was taken from the Schwartz (1992) Value Survey: "How important is equality as a guiding principle in your life?" and was answered using a nine-point scale from -1 (opposed to my values) to 7 (extremely important). The other items were "To what extent does the concept of equality describe you and your concerns?", "How certain do you feel about the importance of equality?", "How strong are your feelings about equality?", "How relevant is equality to how you see yourself?", "How confident are you about the importance that you attach to equality?", "How intensely do you feel about equality?". Participants responded to the first item using an 11-point scale from 0 (not at all) to 10 (very well) and to the latter five items using a scale from 0 (not at all) to 8 (extremely). These latter six items were highly intercorrelated ($\alpha = .88$) and, therefore, were combined into a single measure of value strength. These questions served the dual function of (a) assessing whether instantiation typicality affects properties of the values at a more abstract level and (b) priming the value of equality in *all* conditions prior to the measure of intergroup discrimination (see below; Maio et al., 2001).

Measure of Intergroup Discrimination

The measure of intergroup discrimination I used was an adaptation of Tajfel's (1970) minimal group paradigm. Participants were told that the purpose of the "third study" was to examine decision-making in multiple choice situations and that they would be playing a quiz game similar to "Who Wants to be a Millionaire?" The experimenter told participants that they would be randomly assigned to either a "red group" or a "blue group" and that they would be asked to allocate points to other members of both groups before starting the game. To randomly assign group membership, each participant was asked to draw a slip of paper from a cup. Half of the slips in the cup had "red" printed on them, and the other half had "blue" printed on them. Additionally, a number between 30 and 100 was printed on each slip. Participants were told that the number was a code for them to write in their decision booklets, which the experimenter subsequently distributed.

Next, the experimenter informed participants that their decisions would affect future participants who, in the following week, would be randomly assigned a group colour and code number. He explained that the future participants would also play the quiz and would start with a number of points decided by the current participants' responses in their decision booklets. The experimenter then gave participants general instructions on how to make point allocations using the matrices in their booklets (see Bourhis, Sachdev, & Gagnon, 1994, for a description of these instructions).

After explaining how to allocate the points, the experimenter mentioned a "caveat" to their task. Specifically, participants were told that they would start their own game with the average number of points that members of their group assigned to future members of their group. Thus, the more points that participants allocated to their own group, the more points they themselves received. This "caveat" is a

Matrix 1:

Please place a checkmark in the box that contains the points that you give to subject 115 in the RED group and subject 128 in the BLUE group:

115	RED	16	17	18	19	20	21	22	23	24	25	26	27	28
128	BLUE	16	15	14	13	12	11	10	9	8	7	6	5	4

Please write the points that each person receives according to the box that you have chosen:
Points for 115 of RED: _____
Points for 128 of BLUE:

Matrix 2:

Please place a checkmark in the box that contains the points that you give to subject 116 in the RED group and subject 113 in the BLUE group:

116	RED	4	5	6	7	8	9	10	11	12	13	14	15	16
113	BLUE	28	27	26	25	24	23	22	21	20	19	18	17	16

Please write the points that each person receives according to the box that you have chosen:
Points for 116 of RED: _____
Points for 113 of BLUE:_____

Figure 3.1. Point allocation matrices used to measure pro-value behaviour

modification of the Tajfel (1970) paradigm that Maio et al. (2001) used to give participants added incentive to favour their own group (see Turner, 1978) and to increase the conflict with participants' value of equality. Participants then indicated their group colour and code number on the front of their booklets. The next six pages each contained one Tajfel matrix (see Figure 3.1 for two examples), all of which were adapted from Bourhis et al. (1994). Each matrix contained two rows and 13 columns. At the beginning of each row, there was a code number designating a future participant and a colour identifying the group to which the future participants belonged. The top row always identified a member of the red group and the bottom row always identified a member of the blue group (see Maio et al., 2001). For each matrix, participants were asked to put a cross in the column that corresponded with the number of points they wished to allocate to the two future participants. Participants were also asked to write their choice below the matrix. As the simplest way of determining participants' engagement in pro-value behaviour, the number of points allocated to the outgroup was subtracted from the number of points allocated to the ingroup across the six matrices (see Bernard et al. 2003b, for further explanation of this procedure). Higher scores on this index indicate more ingroup favouritism and lower egalitarianism.

3.3.2 Results

There were no significant effects of sex of participant on the dependent variables, so all subsequent analyses were collapsed across this variable.

Number of Reasons

I counted the number of reasons listed by each participant and a one-way (typical vs. atypical vs. control) ANOVA revealed a significant difference between

the number of reasons listed in the different conditions, F (2, 87) = 26.03, $p < .001$. Using the Tukey HSD post-hoc test, there were no significant differences between the typical (M = 4.63) and atypical (M = 4.10) reasons conditions, t (87) = 0.87, *ns*, but participants in the control condition (M = 8.17) listed significantly more reasons than participants in the typical, t (87) = 5.76, $p < .001$, and atypical, t (87) = 6.64, $p < .001$, conditions. This result is consistent with Maio and Olson's (1998) observation that participants have more difficulty listing reasons for values than reasons regarding attitudes toward mundane objects.

Confidence in Reasons

A one-way (typical vs. atypical vs. control) ANOVA revealed that participants' confidence in their reasons did not differ across conditions, F (2, 87) = 0.81, *ns*.

Value Measures

One-way (typical vs. atypical vs. control) ANOVAs revealed no significant effects of the manipulation on participants' post-manipulation ratings of the importance of equality, F (2, 87) = 0.79, *ns*, or on the measure of value strength, F (2, 87) = 0.40, *ns*. Similar results were found with separate analyses of the six items that constituted the measure of value strength (all $ps > .11$). These six items included measures of value centrality, value certainty, and value relevance, none of which were affected by the typicality manipulation.

Intergroup Discrimination

A one-way (typical vs. atypical vs. control) ANOVA found significant effects on the intergroup discrimination index, F (2, 87) = 6.30, $p < .01$. A planned comparison revealed that participants in the typical condition exhibited less ingroup favouritism (M = 34.27) than participants in both the control condition (M = 54.87)

and the atypical condition ($M = 53.57$), t (87) = - 3.54, $p < .01$ (see Figure 3.2). Tendencies to favour the ingroup did not differ between the atypical and control conditions, t (87) = - 0.20, *ns*.

Reason Types

In a qualitative analysis of the reasons, I noted that there was a trend for the reasons listed in the atypical (left vs. right-hander) condition to be consequentialist in nature, in that they draw attention to the consequences of violating the value. For example, the reasons included "There are laws against discrimination – being unfair in the choice of candidate, whether right or left-handed, would *violate these laws*", "It is important to set the right example to others, treating people equally *makes them feel good*", and "Employees are *more productive* if they perceive their environment to be fair".

Conversely, there was a trend for reasons listed in the typical (male vs. female) condition to be more non-consequentialist in nature. For example, the reasons included "Being male or female should not matter when applying for a job", "Males and females are of equal intelligence", and "Equality is important when choosing between males and females because it is a fundamental right". This pattern of reason production fits with the pattern of familiarity with the instantiations. Following the typical instantiation, participants simply restate the principle of equality and blandly assert its importance because they are familiar with the instantiation and the reasons seem entirely self-evident to them. In contrast, following the atypical instantiation, with which participants are less familiar, they use consequential reasons to provide extra justification of why equality was important in this novel situation as suggested in Section 3.2.

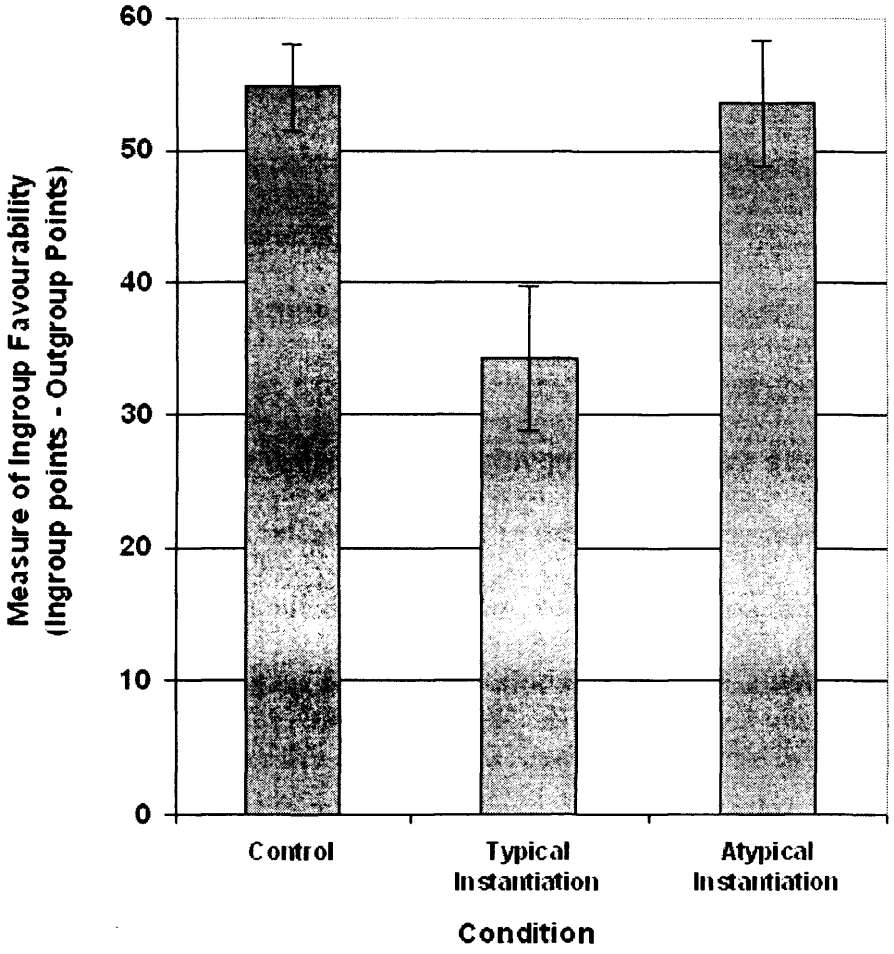

Figure 3.2. Experiment 4: Ingroup favourability (ingroup points – outgroup points). Error bars indicate standard errors of the mean.

3.3.3 Discussion

Experiment 4 revealed that typical value instantiation elicited more subsequent pro-value behaviour than the atypical value instantiation or a condition that allowed participants to restate the importance of the value to them. Specifically, this effect is driven by the typical condition (see Figure 3.2); participants in this condition were more egalitarian than participants in either the atypical or control conditions, which do not differ significantly from each other. Additional evidence indicated that this effect did *not* occur because typical instantiations increased participants' confidence about their reasons, the perceived importance of the value, or

the strength of the value. This suggests that the effect on subsequent behaviour is not brought about by changes at the abstract value level. Participants also showed no awareness of the link between the "first study" and the subsequent behavioural task, despite extensive debriefing.

Additionally, consistent with prior research addressing value elaboration (Maio et al., 2001), the extent of the elaboration *per se* (independent of content) was not the crucial factor in determining subsequent behaviour. However, the typicality of the instantiation was reflected not only in the degree of egalitarian behaviour participants subsequently display, it also seemed to be reflected in the kinds of reasons participants gave for why the value was relevant in that situation. The next study explores further this difference in reasons and its role in the typicality effect.

3.4 Experiment 5

Two types of reasons emerged in Experiment 4: non-consequential reasons, which were generated in evaluating the typical value instantiation, and consequential reasons, which were prompted by the atypical instantiation. Experiment 5 sought further evidence for this distinction and its link to typicality by directly supplying participants with either consequential or non-consequential reasons. Both kinds of instantiations were paired with both kinds of reasons in a 2 (consequential vs. non-consequential) x 2 (typical vs. atypical) design. Participants then completed the measure of egalitarian behaviour from Experiment 4, as well as measuring the perceived strength of the reasons provided. Using this design, I was thus able to detect whether or not the effect of typicality on the behaviour observed in Experiment 4 is mediated by the type of reason. That is, does the typicality effect emerge only

when the reasons given are the ones that occur naturally in the typical or atypical context? Although this does not involve the usual, statistical mediation, the design allows examination of mediation experimentally (see Spencer, Zanna, & Fong, in press).

3.4.1 Method

Participants

Participants were 90 (63 female, 21 male, and six who failed to indicate their gender) high school 'A' level students in different schools across South Wales. A further nine participants were eliminated from analyses because of their failure to complete all sections of the questionnaires or because of suspicion. All participants took part on a voluntary basis.

Procedure

Participants were seated approximately four feet apart (in groups of six to 20). They were informed that they would be taking part in two different studies. The "first study" contained the manipulation and the value measures, and the "second study" contained the measure of intergroup discrimination. After completing the measures, participants were debriefed and probed for suspicion.

Experimental Manipulations

Participants were told that the "first study" examined social values that people consider to be important and the reasons that people think are effective in expressing the importance of these values. They were told that they would be presented with a situation involving a randomly selected social value and asked to rate the extent to which each of six reasons was strong and cogent in expressing the importance of the social value in that situation. In reality, all participants received reasons and value

importance questions relating to the value of equality. Half of the participants rated reasons derived from the typical (male vs. female job decision) instantiation in Experiment 4, and the other half rated reasons derived from the atypical (left vs. right-hander job decision) instantiation in Experiment 4.

Consequential-atypical condition. The consequentialist reasons in the atypical condition were six of the reasons given by participants in the atypical condition for Experiment 1: "Ensuring there is equality in the decision would demonstrate that the company wants a sample of many different perspectives, from both right and left handers", "There are laws against discrimination – being unfair in the choice of candidate, whether right or left handed, would violate these laws", "The company may lose out by choosing on the basis of handedness as the best candidate for the job is not chosen", "It is important to set the right example to others, treating people equally makes them feel good", "Right and left-handers bring different qualities to the job. If all the employees were right-handed, this would neglect the qualities that left-handers could bring to the job", and "Employees are more productive if they perceive their environment to be fair."

Consequential-typical condition. The typical condition in Experiment 5 modified the six consequential reasons to reflect the typical instantiation. Two examples are "Ensuring there is equality in the decision would demonstrate that the company wants a sample of many different perspectives, from both males and females", and "There are laws against discrimination – being unfair in the choice of candidate, whether male or female, would violate these laws."

Non-consequential-typical condition. The non-consequentialist reasons were adapted from those provided by participants in the typical (male vs. female job decision) condition in Experiment 4. The typical condition in Experiment 5 used six

of these reasons without modification: "Being male or female should not matter when applying for a job", "It is unfair to select one person over another based on characteristics such as gender", "Males and females are of equal intelligence", "Personal preference or ideas about males or females should not be allowed to affect the decision", "Equality is important when choosing between males and females because it is a fundamental right", and "Being male or female does not influence skill."

Non-consequential-atypical condition. The atypical condition in Experiment 5 modified the six non-consequential reasons to reflect the atypical instantiation. Two examples are "Being left or right handed should not matter when applying for a job", and "It is unfair to select one person over another based on characteristics such as being left or right handed."

Reason Strength Ratings

For exploratory purposes, participants rated the strength and cogency of each reason using six-point scales from 1 (not at all) to 6 (extremely). These two ratings were strongly correlated, $r = .61, p < .01$, and were therefore combined into a single measure of reason strength.

Value Measures

Having rated the six reasons, participants were asked to rate the importance of equality to them as a guiding principle in their life using a nine-point scale from -1 (opposed to my values) to 7 (extremely important). Participants then rated the extent to which the concept of equality described them as a person (a one-item value centrality measure) using an 11-point scale from 0 (does not describe me at all) to 10 (describes me very well).

Measure of Intergroup Discrimination

Participants were asked to allocate points to future members of their own and another team using the same procedure and decision-making matrices as used in Experiment 4. Pro-value behaviour was then calculated in the same manner as in Experiment 4, such that higher scores on this index indicate more ingroup favouritism and lower pro-value behaviour.

3.4.2 Results

There were no significant effects of sex of participant on the dependent measures, so all analyses were conducted across this variable.

Value Measures

Consistent with Experiment 4, 2 (reason type: consequential vs. non-consequential) x 2 (typicality: typical vs. atypical) ANOVAs revealed no significant effects of the manipulation on participants' post-manipulation ratings of the importance of equality or on the measure of the value's centrality to the self.

Reason Strength

Participants' ratings of the strength of the reasons for equality were analysed using a 2 (reason type: consequential vs. non-consequential) x 2 (typicality: typical vs. atypical) ANOVA. This analysis revealed a significant main effect of the type of reasons provided, $F(1, 83) = 25.35, p < .001$, such that participants overall found the non-consequential reasons to be stronger and more cogent than the consequential reasons. This main effect however, was moderated by a significant typicality x reason type interaction, $F(1, 83) = 15.70, p < .001$ (see Figure 3.3). For the typical instantiation, there was no significant difference between participants' ratings of the strength of the non-consequential reasons ($M = 4.98$, $SD = 0.18$) and the strength of

the consequential reasons ($M = 4.78$, $SD = 0.17$), $F(1, 83) = 0.63$, *ns*. In contrast, for the atypical instantiation, participants rated the non-consequential reasons as significantly stronger ($M = 5.65$, $SD = 0.20$) than the consequential reasons ($M = 3.99$, $SD = 0.19$), $F(1, 83) = 37.49$, $p < .001$. Participants rated non-consequential reasons as weaker in the typical instantiation ($M = 4.98$, $SD = 0.18$) than in the atypical instantiation ($M = 5.65$, $SD = 0.20$), $F(1, 83) = 6.23$, $p < .05$, whereas the consequential reasons were rated as stronger in the typical instantiation ($M = 4.78$, $SD = 0.17$) than in the atypical instantiation ($M = 3.99$, $SD = 0.19$), $F(1, 83) = 9.78$, $p < .01$.

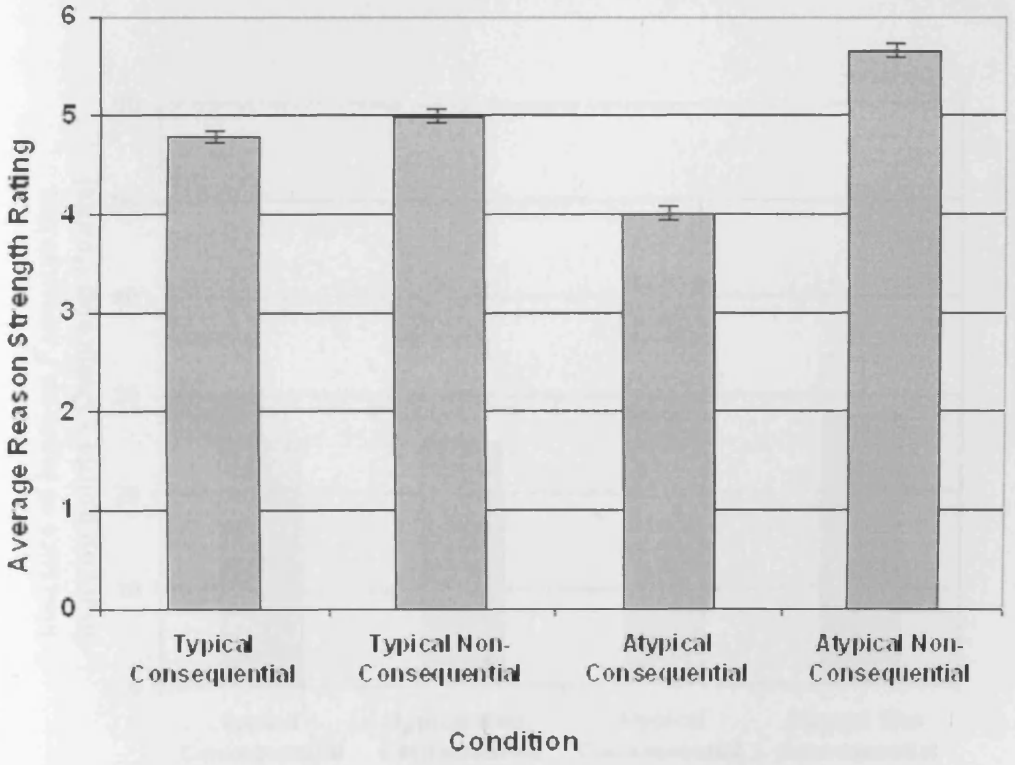

Figure 3.3. Experiment 5: Participants' ratings of strength of reasons. Error bars indicate standard errors of the mean.

Intergroup Discrimination

A 2 (reason type: consequential vs. non-consequential) x 2 (typicality: typical vs. atypical) ANOVA conducted on intergroup discrimination scores revealed no significant effects. However, when a planned t-test was used to investigate the conditions that were consistent with Experiment 4 (typical instantiation-non-consequential reasons and atypical instantiation-consequential reasons), the analysis revealed that participants were significantly more egalitarian in the typical-non-consequential condition ($M = 25.26$) than in the atypical-consequential condition ($M = 42.29$), $t\ (42) = -2.08$, $p < .05$ (see Figure 3.4). This result replicates the findings of Experiment 4 with reasons provided to participants, rather than self-generated reasons.

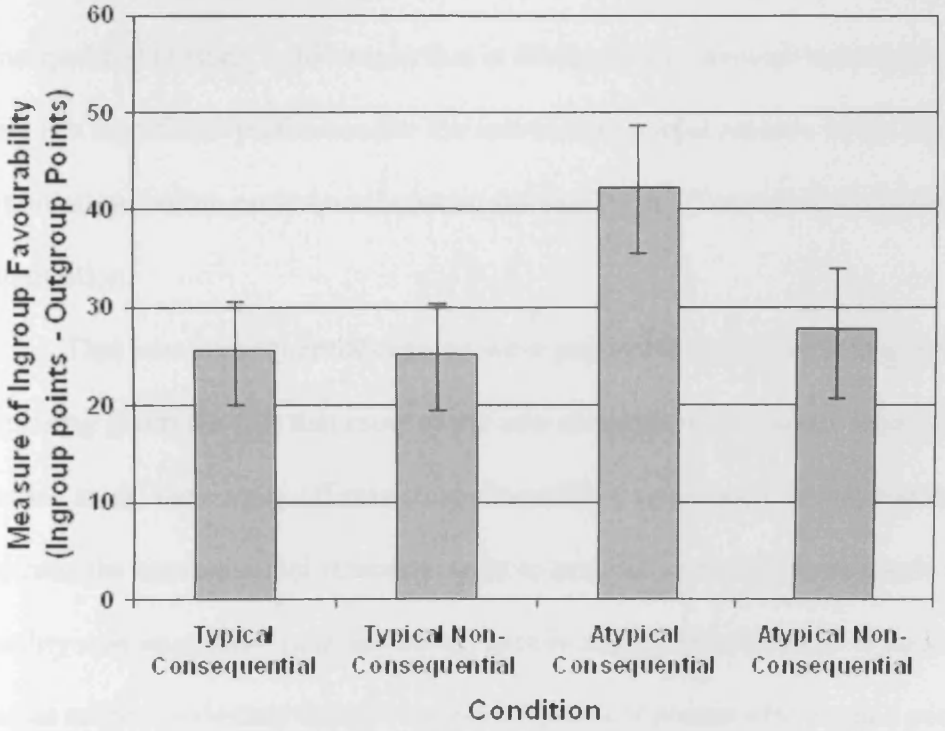

Figure 3.4. Experiment 5: Ingroup favourability (ingroup points – outgroup points). Error bars indicate standard errors of the mean.

3.4.3 Discussion

Experiment 5 sought to examine further the distinction between consequential and non-consequential reasons and their relationship to typicality of instantiation. This experiment enabled me to determine whether this distinction was valid and to better understand how typicality impacts the reasons that participants produce. Experiment 5 also sought to determine the extent to which the effects of typicality on subsequent behaviour observed in Experiment 4 were driven by the situations themselves or the reasons that they evoked.

I begin with a consideration of the argument strength results (see Figure 3.3). The ratings confirm the importance of the consequential versus non-consequential distinction and its relevance to instantiation of typicality in that there is both a main effect of reason type and an interaction between reason type and instantiation typicality. Overall, non-consequential reasons were perceived to be stronger than consequential reasons, a difference that is driven by the atypical instantiations in that there is a significant preference for the non-consequential reasons in the atypical instantiation, but no preference between the two types of reason in the typical instantiation.

That non-consequential reasons were perceived to be stronger in this way is surprising given the fact that most of the non-consequential reasons were really not reasons at all, but simply affirmations of equality's importance in that context. By contrast, the consequential reasons sought to provide some further rationale as to why equality was important. In other words, simply stating *that* the value is important is seen as more convincing than giving an independent reason *why*. From a persuasion perspective, this is an example of a context where giving more reasons gives rise to a weaker argument (see also Petty & Cacioppo, 1984), which would seem irrational in

many contexts. It resonates well, however, with the notion of values as truisms (Maio & Olson, 1998; Maio et al., 2001) whereby individuals seem not to possess much in the way of cognitive support for their values, but rather find them self-evident. Providing consequential reasons for why a value matters would detract from the "self-evidence", thus weakening the case for the value.

That non-consequential reasons were perceived to be the stronger in the atypical instantiation is interesting for a second reason. In Experiment 4, I found that participants generated non-consequential reasons only within a *typical* instantiation; for the atypical instantiation they generated consequential reasons instead. In other words, the reasons participants spontaneously generate in the atypical condition are the ones that are perceived to be *less* compelling. Participants exposed to an atypical, unfamiliar, context seem to have felt the need to elaborate why equality matters in this novel situation; drawing out consequences of affirming or rejecting the value in this particular context was part of this elaboration. This is consistent with research suggesting that individuals uncertain about the validity of an account engage in more elaboration and integration of the information than participants who are confident in the information (Schul, Burnstein, & Bardi, 1996). It seems, then, that this uncertainty, which gives rise to more elaboration, is also inferred in other people's arguments, such that more seems less.

When considering the effects of instantiation typicality on subsequent behaviour (see Figure 3.4), the results suggest an interplay between the situation itself and the type of reason. No main effects emerged here, rather the present experiment replicates the results of Experiment 4 in the conditions that were 'naturally' produced by participants in that experiment: participants were significantly more egalitarian after non-consequential reasons presented in a typical instantiation than after

consequential reasons presented in an atypical instantiation. This was the case even though participants in Experiment 5 read presented reasons rather than generated reasons themselves as in Experiment 4. As in Experiment 4, the behavioural effect was not paralleled by changes in value importance or centrality of the value to the self.

This pattern of evidence indicates that the effect of reasons generation in typical versus atypical contexts in Experiments 4 and 5 was *partly* mediated by the types of reasons generated by participants in typical versus atypical contexts, such that the atypical context caused people to generate (consequential) reasons that are perceived as less strong. However, recall that the typical condition drives the effect on behaviour (see Experiment 4); participants are more egalitarian in the typical condition than in the atypical or control conditions. Importantly, there were no effects (see Figure 3.4) of reasons in these typical conditions; processing a typical instantiation of equality, regardless of the specific reasons produced, made individuals egalitarian. In contrast, processing an atypical instantiation facilitates this egalitarian behaviour (see Figure 3.4) only with the presence of the 'strong' (see Figure 3.3) non-consequential reasons. This latter effect may operate by increasing the familiarity of the atypical instantiation through the reassertions of the principle of equality by the non-consequential reasons. In other words, the non-consequential reasons help to make the atypical instantiation seem more self-evident and familiar, enabling its use as an anchor for later behaviour. Nevertheless, in the condition that drives the focal effect, the typical condition, there is no difference in reason strength, so differences in reason type do not seem necessary for the effect. What remains unclear, however, is whether *some* kind of reason, and the deliberative context that

reasons provide, has to be present or whether the effect would occur even without any reasons at all.

3.5 Experiment 6

In order to test whether or not reasons are necessary for the typicality effect to occur and thus to provide more information about the use of social values, Experiment 6 used a design that discouraged individuals from generating reasons. It also mapped the task more closely onto real-world situations; despite the importance of reasoning and the use of reasons to elicit value-consistent behaviour in previous research (e.g., Maio et al., 2001), most real-world instantiations do not involve explication of reasons for a value (Maio & Olson, 1998). In everyday life, individuals simply experience, hear about, or read an account of an incident without necessarily considering the reasons for or against the actions involved. Therefore, if there is a real role of instantiation, it should not *require* reasons to be generated or contemplated in order to facilitate value-consistent behaviour. Consequently, it is important to investigate whether the typicality of the instantiation alone elicits this effect: is it sufficient to imagine a typical instantiation, rather than also produce or read reasons for a value? The answer to this question would shed light on the process underlying the use of values, and no previous research has addressed the possibility of encouraging pro-value behaviour via elaborated instantiations alone.

Experiment 6 examined whether the typicality of the instantiation itself influenced participants' subsequent behaviour. In order to avoid the self-generation of reasons within a brief situation, participants simply read an expanded version of the typical or atypical instantiation used in the previous experiments for a limited time

(three minutes) and no reasons were requested. Participants then completed the measure of egalitarian behaviour as in the prior experiments.

3.5.1 Method

Participants and Procedure

Participants were 60 (46 female, 11 male and three who failed to indicate their sex) high school 'A' level students in different schools across South Wales. A further seven participants were eliminated from analyses because of failure to follow instructions or because they exhibited suspicion. All participants took part on a voluntary basis and completed the same basic procedure as in Experiment 5, except for alterations to the experimental manipulation (below). This manipulation simply varied the content of a value instantiation (typical, atypical or control) that participants were asked to read. Participants then completed measures of value importance and strength from Experiment 1, which also served to make the value of equality salient before completing the measure of intergroup discrimination. All participants then completed the same intergroup discrimination task as in Experiments 4 and 5.

Experimental Manipulation

Typical instantiation. In this condition, participants were told that the "first study" was investigating people's perceptions of the involvement of social values in different situations. They read an expanded version of the typical instantiation from Experiments 4 and 5 for three minutes. Specifically, participants were presented with a short story that described interviews for the position of Executive Vice-President. The story described interviews that took place at a local café in order to accommodate the large numbers of people on the interview panel. Candidates had to make a

presentation to the panel members on their ideas for the future of the company. The description ended with two sentences suggesting that an inadvertent physical feature of the setting (a cobble stone floor) caused unintentional discrimination against the female candidates: "Unfortunately, the cobble stones meant that the female candidates had a very hard time of walking while giving their presentations, because of the heels on their shoes. The male candidates did not have this difficulty and made better impressions on the interview panel."

Atypical instantiation. Participants in this condition followed a similar procedure as above, but they were presented with an expanded version of the atypical situation from Experiments 4 and 5. The text was identical to that used in the typical instantiation, except that this version ended with two sentences suggesting that an inadvertent physical feature of the setting (placing of the lectern) caused unintentional discrimination against left-handed candidates: "Unfortunately, the set up of the equipment meant that the left-handed candidates had a very hard time making their presentation; they had to walk from the lectern to the other side of the screen to use their left hand to point out important information. Right-handers could stay at the lectern and continue to glance at their notes, and these candidates made better impressions on the interview panel."

Control condition. In this condition, participants were informed that the "first study" would present them with two questions about a randomly selected social value. All participants in this condition proceeded directly to the measures of value importance and strength.

3.5.2 Results

There were no significant effects of sex of participants on the principal

dependent variable (intergroup discrimination), so all analyses were conducted across sex.

Value Measures

Consistent with Experiments 4 and 5, one-way (typical vs. atypical vs. control) ANOVAs again revealed no significant effects of the manipulation on participants' post-manipulation ratings of the importance of equality, $F(2, 57) = 0.30$, *ns*, or on value strength, $F(2, 57) = 0.16$, *ns*.

Intergroup Discrimination

Again, consistent with Experiments 4 and 5, a one-way (typical vs. atypical vs. control) ANOVA revealed significant effects on the index of intergroup

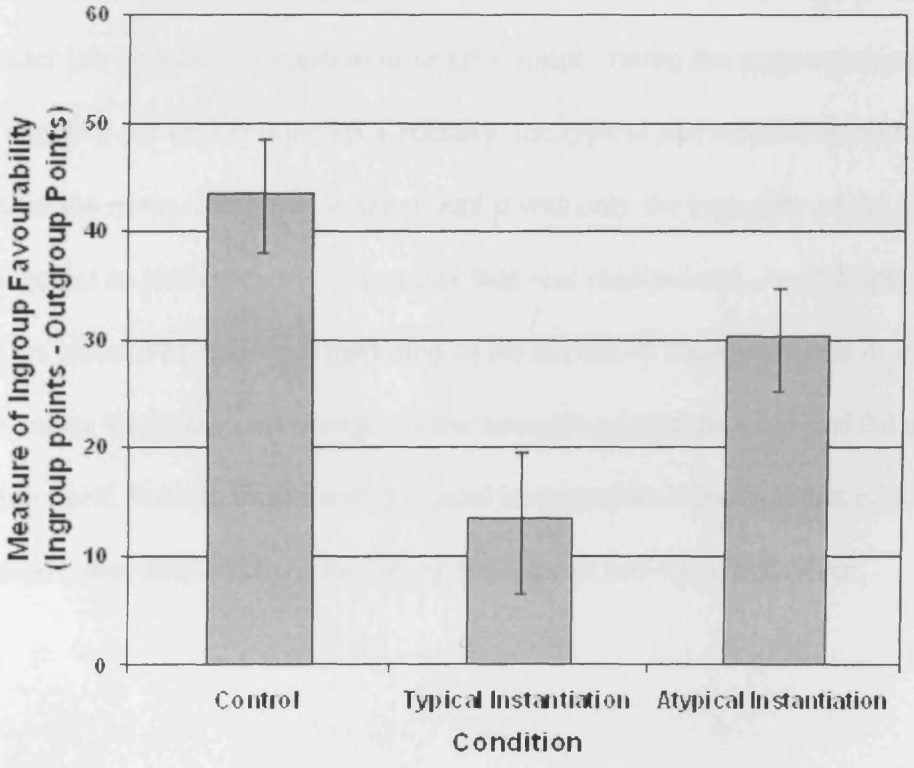

Figure 3.5. Experiment 6: Ingroup favourability (ingroup points – outgroup points). Error bars indicate standard errors of the mean.

discrimination, F (2, 57) = 6.20, $p < .01$ (see Figure 3.5). A planned comparison revealed that participants in the typical condition (M = 13.36) exhibited less ingroup favouritism than participants in both the atypical (M = 30.35) and the control conditions (M = 43.44), t (57) = - 3.24, $p < .05$. Tendencies to favour the ingroup did not differ between the atypical and control conditions, t (57) = - 1.49, *ns*.

3.5.3 Discussion

Experiment 6 supported the hypothesis that the typicality of the instantiation alone is sufficient to influence participants' subsequent behaviour even when no reasons are contemplated. This is the first evidence that an extended instantiation alone can impact subsequent, unrelated behaviour; participants were more egalitarian after reading an extended version of the typical (male vs. female job decision) instantiation than after reading an extended version of the atypical (left vs. right hander job decision) instantiation or after simply rating the importance and centrality of equality (control condition). Crucially, the typical and atypical instantiations were within the *same* situational context, and it was only the typicality of the group categories as instantiations of equality that was manipulated. As in Experiments 4 and 5, this effect was again not mediated by an impact on the importance or centrality of the value; there were no changes in the strength-related properties of the abstract value itself. Rather, the extended typical instantiation alone (without elicitation of reasons) was sufficient to elicit more subsequent pro-value behaviour.

3.6 Experiment 7

Experiment 7 tested the generalisability of the results using new typical and atypical instantiations, again within the same situational context. Both instantiations involved discrimination against groups that are important potential targets of prejudice. The typical instantiation involved discrimination against a Black applicant, and the atypical instantiation involved discrimination against an applicant with a disability. Despite the change in target groups, I expected that the typical instantiation would again evoke more subsequent egalitarian behaviour than the atypical instantiation.

In addition, the experiment tested three further explanations for the effect of the typical instantiations. First, I tested whether the typical instantiation provides sufficient support for participants to engage in pro-value behaviour by perhaps affecting the emotions felt for that specific situation. For example, people might feel more sympathy for the victim of inadvertent discrimination in the typical instantiation than in the atypical instantiation. Because empathy tends to elicit greater pro-social behaviour (e.g., Batson & Tecia, 1999), it is possible that the elicitation of greater empathy in the typical instantiation directly leads to the increase in pro-value behaviour. To explore this possibility, participants were presented with the situation and asked to rate the extent to which they felt sympathy for the individual involved.

Second, the Experiment tested whether the typical instantiation affects the manner in which people regulate their pursuit of the abstract value. Higgins (1998b) draws a distinction between people's wants and desires and the oughts and norms that they perceive from other people and society generally. It is possible that, although participants' perception of the importance or centrality of equality does not change in

the different instantiations, their perception of the extent to which they want to or feel they should use equality does change. This effect would contradict the claim that the effects operate purely at the level of the instantiation itself (i.e., without mediation through the abstract value). To examine this possibility, participants completed measures of the extent to which they 'would want to' and 'would feel they should' use equality in their general decision-making.

Third, Experiment 7 tested whether the typicality of the instantiation differentially impacts the accessibility of the concept of equality from memory. I consider this an unlikely explanation for the results given that equality was deliberately made salient (and therefore accessible) to participants in *all* conditions before they engage in the behavioural measure. Nevertheless, to rule out this alternative explanation, a separate group of participants were given the materials from either the typical or atypical condition and then completed measures of the accessibility of the concept of equality, based on two well-established reaction-time methods. These measures were given to a separate group of participants to avoid interference with the main measures, while still enabling a test of whether any differences between the typical and atypical instantiations were plausibly attributable to differences in value accessibility.

3.6.1 Method

Participants

In the main sample, participants were 60 (47 female, 11 male, and two who failed to indicate their gender) undergraduate students who participated for course credit or £3. Eight additional participants were excluded from analyses for failure to complete all sections of the study or for indicating suspicion.

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In the sample that was used to examine effects of the manipulation on value accessibility, participants were 40 (35 female and five male) undergraduate students who participated for course credit or £3. Two additional participants were excluded from analyses for failure to complete all sections of the study.

Procedure

In the main sample, participants were seated approximately five feet apart in groups of two to seven. Following a similar procedure to the previous experiments, all participants were informed that they would be taking part in two different studies: the first contained the manipulation and the value measures and the second contained the measure of intergroup discrimination used in the prior experiments.

In the additional sample, participants completed either the typical or atypical instantiation condition, but instead of the group discrimination measure (previously "Study 2"), participants then (a) completed a word categorisation task and (b) completed a timed rating of the importance of five different social values (the final value was equality; the preceding values were used as practise trials). All participants in both samples were debriefed and probed for suspicion using the funnel debriefing method.

Experimental Manipulation

Participants in the typical and atypical instantiation conditions read the story involving discrimination and proceeded directly to the general value and regulatory focus measures after they had read through the text.

Typical instantiation. Following the same procedures as in Experiment 6, participants were presented with a short story that described interviews for the position of Executive Vice-President. (This overarching story-line was maintained from the previous experiments because participants often noted the ecological

validity of the situation during debriefing in the prior experiments.) The story described interviews that included a half-hour presentation and then a formal interview by a large panel of interviewers. The description ended with three sentences suggesting that nervousness on the part of several members of the interview panel, who were keen to avoid prejudice, caused unintentional discrimination against a Black candidate: "Unfortunately, several of the members of the panel had limited experience with people from ethnic minorities and were nervous about appearing uncomfortable or biased. The Black applicant picked up on their nervousness, which affected his confidence and made him answer questions more tentatively. As a result, the White applicants made better impressions on the interview panel."

Atypical instantiation. Participants in this condition followed a similar procedure as above, but they were presented with a short story that involved atypical discrimination. The text was identical to that used in the typical instantiation condition, except that this version ended with three sentences suggesting that nervousness by several members of the interview panel, who were keen to avoid prejudice, caused unintentional discrimination against a candidate with an eye patch: "Unfortunately, several of the members of the panel had limited experience of people with disabilities and were nervous about appearing uncomfortable or biased. The applicant with an eye patch picked up on their nervousness, which affected his confidence and made him answer questions more tentatively. As a result, the other applicants made better impressions on the interview panel."

Control condition. In this condition, participants were informed that the "first study" was about social values and that they would be presented with three questions about a randomly selected social value. Participants in this condition proceeded directly to the general value and regulatory focus measures.

General Value and Regulatory Focus Measures

Participants were asked to rate the importance of equality to them as a guiding principle in their life, using a nine-point scale from -1 (opposed to my values) to 7 (extremely important). In addition, participants were asked to rate the extent to which they felt they *should* use and *would want to* use equality in their decision-making in general, using two 11-point scales from 0 (not at all) to 10 (definitely).

Associated Affect

Participants in the typical and atypical conditions were asked to rate how sorry they felt for the candidate who was discriminated against and how sympathetic they felt towards the candidate, using 11-point scales from 0 (not at all) to 10 (extremely).

Value Accessibility

Participants in the additional sample completed two reaction time measures of the accessibility of the concept of equality rather than progressing to the intergroup discrimination task. For the word categorisation task (or computer-based lexical decision task; see Aarts, Dijksterhuis, & De Vries, 2001) participants' reaction times were measured as they categorised letter strings into words and non-words. Half of the word stimuli were equality related words (e.g., equal, similarity, fairness) and the other half were neutral words (e.g., slate, painting, marketing). The mean length of the letter strings and words was controlled.

For the timed importance ratings of the values, participants were presented with five different social values and were asked to rate the importance of the values on a rating scale from 1 (not at all important) to 4 (extremely important). The first four values acted as practise trials for the final value presented: the value of equality.

Analyses were only conducted on the reaction times of the measure of the importance of equality.

3.6.2 Results

The effects of sex of participants on any of the dependent variables were not significant, so all analyses were collapsed across sex.

General Value and Regulatory Focus Measures

Consistent with Experiments 4, 5, and 6, a one-way (typical vs. atypical vs. control) ANOVA revealed no significant effects of the manipulation on participants' post-manipulation ratings of the importance of equality, $F(2, 57) = 0.20$, *ns*. In addition, one-way ANOVAs revealed no significant effects of the manipulation on the extent that participants *should* use equality in general, $F(2, 57) = 1.53$, *ns*, or on the extent that participants *would want to* use equality in general, $F(2, 57) = 1.23$, *ns*.

Associated Affect

One-way (typical vs. atypical) ANOVAs revealed no significant effects of the manipulation on participants' ratings of how sorry, $F(1, 38) = 2.83$, *ns*, or sympathetic, $F(1, 38) = 0.37$, *ns*, they felt for the individual in the story. A combined measure of sorrow and sympathy ($\alpha = .81$) revealed similar null effects ($p > .3$).

Value Accessibility

Analyses of the (logged) reaction times revealed no significant differences between the typical and atypical instantiation conditions for the neutral, $F(1, 38) = 0.26$, *ns*, or equality-related, $F(1, 38) = 1.42$, *ns*, words. In addition, analysis of the timed value importance measures revealed no significant differences between the typical and atypical instantiation conditions for the reaction times, $F(1, 38) = 0.31$, *ns*, or the importance ratings, $F(1, 38) = 1.30$, *ns*.

Intergroup Discrimination

A one-way (typical vs. atypical vs. control) ANOVA found significant effects on the index of intergroup discrimination, $F(2, 57) = 6.54, p < .01$ (see Figure 3.6). As in the prior experiments, a planned comparison revealed that participants in the typical condition exhibited less ingroup favouritism ($M = 27.0$) than participants in both the atypical ($M = 51.9$) and the control conditions ($M = 53.2$), $t(57) = -3.61, p < .01$. Again, tendencies to favour the ingroup did not differ between the atypical and control conditions, $t(57) = -0.17$, *ns*.

3.6.3 Discussion

Using new instantiations, Experiment 7 again found that the typicality of the instantiation alone has a significant influence on participants' subsequent pro-value behaviour. Participants were more egalitarian after reading the typical instantiation (Black candidate) than after reading the atypical instantiation (candidate with an eye-patch) or after simply completing the general value measures. As in the previous three experiments, this effect was not mediated by an impact on attributes of the value at an abstract level. In addition, the effect of typicality was not mediated by any impact of the manipulation on affective associations with the individual in the instantiation, regulatory focus towards the value, or differences in the accessibility of equality. This pattern again provides evidence that the effects occur through the application of the instantiations themselves, rather than via changes associated with the abstract values *per se*.

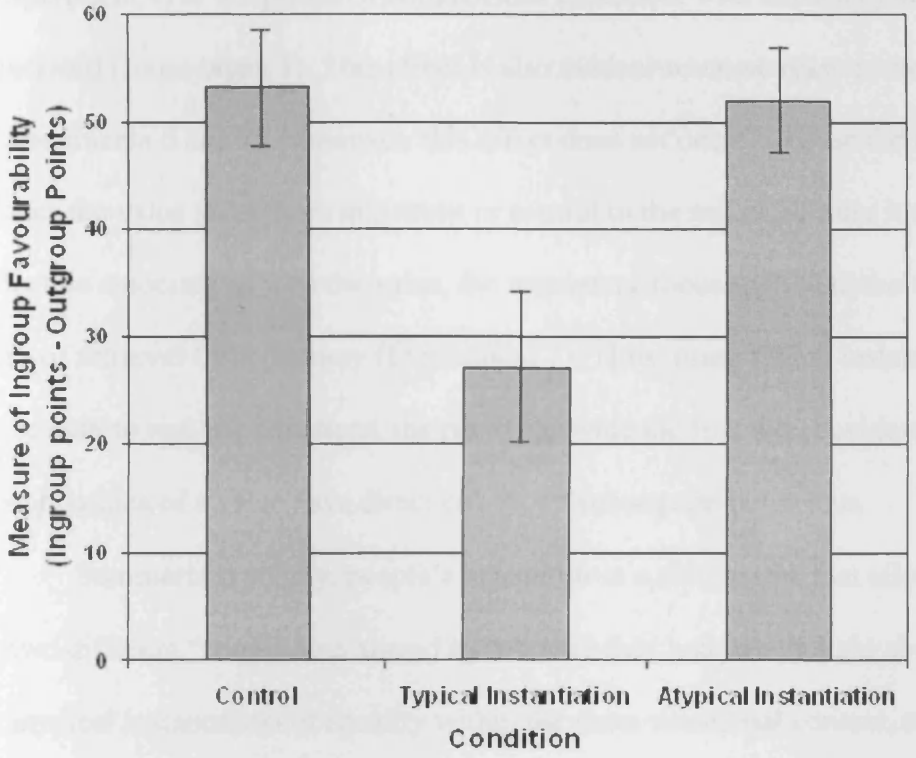

Figure 3.6. Experiment 7: Ingroup favourability (ingroup points – outgroup points). Error bars indicate standard errors of the mean.

3.7 Discussion

The current investigation provides evidence that the way a value is instantiated has two important effects: the typicality of the value instantiation affects reasons associated with the value (Experiments 4 and 5) and affects subsequent pro-value behaviour (Experiments 4 - 7). Across four experiments, results consistently indicated that exposure to a typical instantiation enhances subsequent pro-value behaviour whereas exposure to an atypical instantiation does not. This effect was evident despite considerable incentives for participants to behave in a discriminatory manner and is present when participants list their own reasons for the value

(Experiment 4) or are provided with reasons consistent with those they would have generated (Experiment 5). This effect is also evident when no reasons are present (Experiments 6 and 7). Moreover, this effect does not occur because the instantiation makes the value seem more important or central to the self or because it alters affective associations with the value, the regulatory focus applied to the value, or its ease of retrieval from memory (Experiment 7). Thus, using salient instantiations that were akin to real-life situations, the results provide the first direct evidence that instantiations of a value have direct effects on subsequent behaviour.

Summarised simply, people's behaviour in a simple task that allocates points to two different "teams" was altered by whether they had just thought about a typical or atypical instantiation of equality within the same situational context, even though the value of equality was equally relevant to *both* of these instantiations. Moreover, neither of these instantiations had any direct relation to the subsequent decision-making. When I probed participants about these effects, none thought that they *should* be or were influenced by the nature of the prior instantiation. To them, there was no overt reason why seeing discrimination against women or left handers or against Blacks or the disabled should cause different subsequent levels of discrimination. In addition, participants did not perceive a link between the explicit priming of the value instantiation in the "first study" and the behavioural measure in the subsequent study. Using funnel debriefing throughout the four experiments, participants who indicated any level of suspicion were excluded from the analyses. This is not crucial, however. If participants were aware of a link between the studies, this would still not have accounted for the typicality effect because nothing about the reported values themselves changed, despite the observed changes in behaviour. The experiments included a variety of properties of the value at an abstract level,

including measures of value importance, value strength, value centrality, value relevance, value certainty, value associated affect, means of value regulation, and value accessibility. Participants had ample opportunity to express increased commitment to the value, but there was no evidence that any of these variables mediated the robust effect of typicality. The typicality of the instantiations did not change any properties of the abstract value.

Therefore, in response to the second issue raised in Chapter 1 (the application of abstract values to specific contexts), the current research provides evidence that people bridge the gap between abstract values and behaviour within specific situations through instantiations of the value within the specific context. Moreover, Experiments 4 to 7 suggest that it is at the level of instantiations that participants' subsequent behaviour is influenced and not at the level of the abstract guiding principle as suggested by much of the extant literature. In my view, the typical instantiations are effective because they bridge the gap between the abstract principle and the specific context in a familiar way and thus enable values to guide behaviour.

This evidence of the importance of value instantiations therefore raises the issue, as proposed in the values as justifications literature (e.g., Kristiansen & Zanna, 1988; Seligman & Katz, 1996), of whether values primarily exist as concrete instantiations and not as abstract guiding principles at all. The results of these experiments do not allow such a conclusion, however. As outlined above, I propose that people possess an abstract representation of the value and that it is the instantiation of that value within the specific context that influences an individual's behaviour within the situation. This proposal is born out by the data; the current research provides evidence of the differential impact of value instantiations on subsequent behaviour as well as the consistency of strength-related properties of the

abstract value. This consistency suggests that value representations at the higher, abstract level *do* exist and that they are *unaffected* by the specific instantiations of the value. It is the instantiations themselves that serve as salient bridges between the abstract principle and later application to other contexts that contain features (e.g., potential for unequal outcomes) relevant to the value. If the instantiation is typical, its likelihood of use is much greater.

Another intriguing finding of the current research is Experiment 5's argument strength results. Interestingly, participants found the non-consequential arguments to be more convincing, overall, than the consequential arguments. This was the case despite the fact that these non-consequential reasons were simply reassertions of the basic principle of equality and, therefore, were not really arguments at all. Notwithstanding this evidence, the involvement of reasons in Experiments 4 and 5 contributed an important additional perspective about the processes underlying the use of values by focussing on the cognitive support for the value. It is particularly remarkable that the typicality effect was evident even after participants have explicitly listed or read reasons for equality and therefore reasons to avoid arbitrary discrimination. Moreover, in the atypical instantiation of reasons condition, participants also rated the importance of equality. Yet, just moments after expressing strong pro-equality reasons and ratings, these participants still exhibited significantly less egalitarian behaviour than participants who pondered reasons in the typical context. In other words, the typicality of a value instantiation exerts a powerful effect even in a highly deliberative context that should make it difficult to see an effect at all. This is yet further evidence of the importance and influence of social values on decision-making and behaviour.

The results across experiments have important implications for understanding the nature and rationality of human moral judgment and behaviour. Equality is not just any old value; it is a fundamental moral value (Schwartz, 1992) and, as such, it is enshrined politically and legally in documents across the world, from the French rallying call of "liberte, egalite, fraternite...!" through to the UN Convention of Fundamental Human Rights (Article 26: 185 signatories), the European Convention on Human Rights (Article 14: 45 signatories), and individual national constitutions (e.g., Amendments XV and XIX of the Constitution of the United States of America, Article III of Germany's Constitution). I outlined in Section 3.2 how value instantiation involves a range of complex judgments and decisions, as evidenced in the legal materials. Though complex deliberations about values are also found in daily life, the cognitive system often brings values to bear in a seemingly effortless fashion. This suggests the possible use of *heuristics* (see Newell & Simon, 1972; Tversky & Kahneman, 1974) in value-based decisions. Relevant to this hypothesis, several authors have previously sought to make a case for moral heuristics (e.g., Baron, 1993; Sunstein, 2005; see also Hahn, Frost, & Maio, 2005), such as the distinction that is made between acts of omission and acts of commission. Baron and colleagues (e.g., Haidt & Baron, 1996; Spranca, Minsk, & Baron, 1991) have found that participants judge individuals more harshly for an act of commission than for an act of omission, even given the involvement of the same principles. That is, with the same issues at stake and, in effect, the same decision to be made, the way that a moral choice is instantiated can elicit different decisions (Baron, 1992).

However, the main difficulty in establishing 'moral' heuristics is that of finding a standard of correctness against which moral outcomes can be judged. Absolute standards of moral rationality are notoriously difficult to obtain (Harris,

1986; Pojman, 1998; Seedhouse, 2002). So, in the above illustration, one might question whether omissions and commissions are not *relevantly* dissimilar, as evidenced by the fact that the criminal legal systems of many countries make sophisticated and subtle distinctions between acts of commission and omission (see Bennett, 1981). However, my findings would seem to make a clear-cut case for which any kind of rational justification would be difficult to establish. It can *not* be normative to display differing amounts of egalitarian behaviour merely as a function of prior exposure to a fictitious episode, in particular as this exposure fails to modulate in any way participants' overt perceptions of the relevance and importance of these values. In fact, participants explicitly indicate that (a) the value of equality is highly important, central and relevant, (b) they have sympathy for the individual involved, and (c) feel that they should use the value of equality in their decision-making. Yet, with all these variables being equal, the typicality of the instantiation of the value plays a significant role in participants' subsequent behaviour in an entirely unrelated task that presents strong incentives to be discriminatory. This would suggest the use of an underlying heuristic, although further investigation is needed to establish its scope and exact nature. Even within cognitive psychology, which has concerned itself extensively with typicality, the focus has been on effects of typicality on the processing of the instantiation itself (e.g., Battig & Montague, 1969; Rosch, 1973; Stuss et al., 1983); to date, there is no published research on the effects of typicality on a subsequent processing situation. My results open the possibility that effects of typicality are deep rooted and have spill-over consequences for subsequent decisions. As such, these effects potentially apply to a wide range of psychological tasks and situations.[6]

[6] The similarity of the typical instantiation to past instances may trigger analogical mapping.

The current findings also add to prior research that examined the effects of elaborating reasons for a value on subsequent pro-value behaviour (Bernard et al., 2003b; Maio et al., 2001). That is, such reasons will have a significantly weaker (or null) effect when they feature an atypical instantiation. This result indicates that Maio et al.'s (2001) finding of increased pro-value behaviour following concrete instantiations occurred because participants in their research spontaneously thought of typical instantiations (Rosch, 1975). In other instances, people might not be guided to think of typical instantiations. For example, some intervention strategies seek to increase corporate citizenship by getting people to think about the importance of helpfulness (Maignan, Ferrell, & Hult, 1999; McAlister & Ferrell, 2002), but people's typical thoughts about this value may have more to do with charities and people in need than colleagues at work or the role of the corporation within society. As a result, such interventions may be less effective than other approaches.

This is not to suggest, however, that atypical instantiations should be ignored or dismissed as unimportant. In contrast, they may function as important testing grounds for people's use of the principle because they show how far the ideal may or may not be stretched. If people discover that the atypical instantiation can be covered plausibly, then the 'value' may be expanded to include this instantiation and its reach as a guiding principle would be considerably increased. What remains to be determined is whether or when atypical instantiations can function in this way. This issue is particularly salient when addressing atypical forms of discrimination (e.g.,

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That is, participants apply the solution to previous problems to an analogically similar instance of the problem (see, e.g., Ross & Kilbane, 1997). In this way, the extensive information in memory is not activated, but rather the principle of, for example, equality is restated as the self-evident solution in this situation and is more likely to be used in subsequent, unrelated behaviour.

age-ist or fat-ist issues). Currently, 'typical' forms of discrimination are often prohibited in legislation, but there is no specific legislation against less typical forms of discrimination. Yet, some of the less typical forms of discrimination are noticeably prevalent within society. For example, research has shown that obese people report more employment discrimination than non-obese people (Rothblum, Brand, Miller, & Oetjen, 1990) and that employers were unwilling to hire "fat" people even if their weight would not have affected their performance in their job (Roe & Eickwort, 1976). Touster (2000) suggests that fatness is stigmatized in society and yet oppression of fat people is not viewed as illegitimate oppression (see also Crandall & Biernat, 1990). It is likely that this view occurs because treatment of fat versus thin people is not as often perceived as an issue of equal opportunity (see McVittie, McKinlay, & Widdicombe, 2003, for a related discussion of age-ism). Therefore, it may be useful to ensure that values are considered across diverse situations because the contexts within which people experience values on a daily basis will not necessarily be typical instantiations of those values.

3.8 Chapter Summary

To return to the issue raised at the outset, it seems that value instantiations are the bridge that enable people to project abstract social values on to specific situations in order to influence behaviour. In relation to the quotation at the beginning of this Chapter, it is not simply the case that values make decisions easier; rather, people's use of values is more complex than the extant literature has proposed. The results presented in this Chapter suggest that the guidance provided by values is dependent on the salient instantiation of the value and that people may be unaware of the impact

that prior value instantiations can have on their own behaviour. The results also clearly show that value instantiations are vital and unique components of values, distinct from the existence of values at the higher, abstract level, but exerting a powerful impact on subsequent value-relevant behaviour. This research has shed light on the processes that underlie *how* values are used, which is crucial for understanding the link between values and behaviour.

Given this better understanding of how social values are used within specific situations and the evidence of the role that values play as guiding principles and justifications (Chapter 2), it is now appropriate to shift the focus back to the use of values at the abstract level. As I noted above and in the prior chapter, I expect that values are used both at the abstract level and at the level of instantiation. Both types of representations are relevant to the use of values in rhetoric and particularly in politics and political propaganda. In such contexts, as demonstrated in Chapter 1, values are often combined in order to form 'stronger' and 'broader' arguments in support of a particular policy or strategy. This use of values focuses on using the *abstract* values as part of an argument, often without specifying what is meant by the abstract terms. Despite this prevalent use of social values within rhetoric, this type of value argumentation has not been addressed empirically. This issue will be the focus of the next chapter.

Chapter 4
Persuasion: Similar is Best

4.1 Chapter Overview

The main aim of this Chapter is to expand understanding of co-value argumentation, which involves appealing to one value in order to support another value. This is a technique often employed by politicians, philosophers and rhetors in order to strengthen the overall impact of their arguments and to appeal to diverse audiences. Despite the prevalence of such arguments, the use and limitations of co-value argumentation have not been empirically examined. Across three experiments, I investigated the impact of the psychological relatedness of values on the persuasiveness of the arguments that bind them. Experiment 8 found that participants were more persuaded by arguments citing values that fulfilled similar motives than by arguments citing more diverse values. Experiment 9 ruled out differences in value importance as an alternative explanation of this effect and Experiment 10 extended the effect to more complex real-world arguments taken from political propaganda and revealed a mediating effect of argument plausibility. This research highlights the importance of value relatedness in persuasive arguments, reveals an *a priori* psychological predictor of argument persuasiveness and shows that there are implicit constraints within the human structure of values that limit their use in argumentation.

4.2 Co-Value Argumentation

"The Manifesto of the Communist Party

QUESTION 1: Are you a communist?

ANSWER: Yes.

QUESTION 2: What is the aim of the Communists?

ANSWER: To organise society in such a way that every member of it can develop and use all his capabilities and powers in complete *freedom* and without thereby infringing the basic conditions of this society.

QUESTION 3: How do you wish to achieve this aim?

ANSWER: By elimination of private property and its replacement by *community of property*."

Engels (1847, as cited in Wheen, 1999, p. 115, italics added)

"I will choose *freedom* because I think *freedom* leads to *equality*"

George W. Bush (as cited in Anderson, 1999, italics added)

From the 1847 manifesto of the Communist Party to more current and capitalist sources (e.g., the President of the United States), major political ideologies employ co-value argumentation: they appeal to one value in order to support another value. The two examples above use the same values of freedom and equality in order to convince their audience of the different goals that they seek to achieve. On the one hand, the Communist Manifesto states that freedom will be achieved by facilitating equality in a "community of property". On the other hand, George W. Bush claims that freedom leads to equality. However, these are not isolated cases of co-value argumentation; appealing to one social value to validate another dates back as far as Plato, who stated that *equality* leads to *friendship* (Prangle, 1988). In addition, co-value argumentation is used within the business domain (e.g., "Greenspan: *Honesty*

leads to *success* in life and business," 1999; italics added) and in political dialogue (e.g., George W. Bush above; see Gordon & Miller, 2004 for a discussion of the use of values in politics).

The use of co-value argumentation provides politicians and rhetors with a huge advantage: social values are seen as important, they are generally viewed positively (Schwartz, 1992), and individuals attempt to behave consistently with their values (Rokeach, 1973; Schwartz, 1996). Given these facts, it is easy to see why politicians and speech writers use social values to appeal to their audience, because it is likely that most people will agree with a statement in support of values. As such, this use of values is likely to be one of the predominant ways in which people encounter value terms and discuss values in everyday life. Any investigation of the use of values should therefore not ignore this prevalent rhetorical technique. In this Chapter, I propose that the motivational structure underlying values introduces a potential limitation of co-value argumentation. Namely, there must be constraints on *which* values are paired in such arguments; not all statements involving values are likely to be equally persuasive. This research investigates the influence of the psychological relationships between values on the persuasiveness of the arguments that bind them.

4.2.1 Social Value Structure

Examination of co-value argumentation is facilitated by the considerable evidence of a well-established structure of values, a structure that has been repeatedly tested across a range of samples in a variety of countries. As reviewed in Chapter 1, extensive research has examined the psychological organisation of values. The most influential and empirically supported structure was postulated by Schwartz (1992;

Schwartz & Bilsky, 1987), who proposed the existence of ten motivationally distinct types of values organized in a circumplex design subsuming two dimensions (see Figure 4.1, a replication of Figure 1.1 presented again for clarity and ease of use). As outlined in Section 1.3, one dimension contrasts values that transcend self-interest (e.g., forgiving, helpfulness) with values that involve social superiority and esteem (e.g., social power, influence). The second dimension contrasts values that follow intellectual and emotional interests in uncertain directions (e.g., daring, a varied life) with values that emphasize conservation of order and harmony (e.g., respect for tradition, obedience). This structure has been supported by research in over 60 nations (Schwartz, 1996; Schwartz et al., 2001), using analyses of the pattern of correlations between ratings of the importance of diverse values.

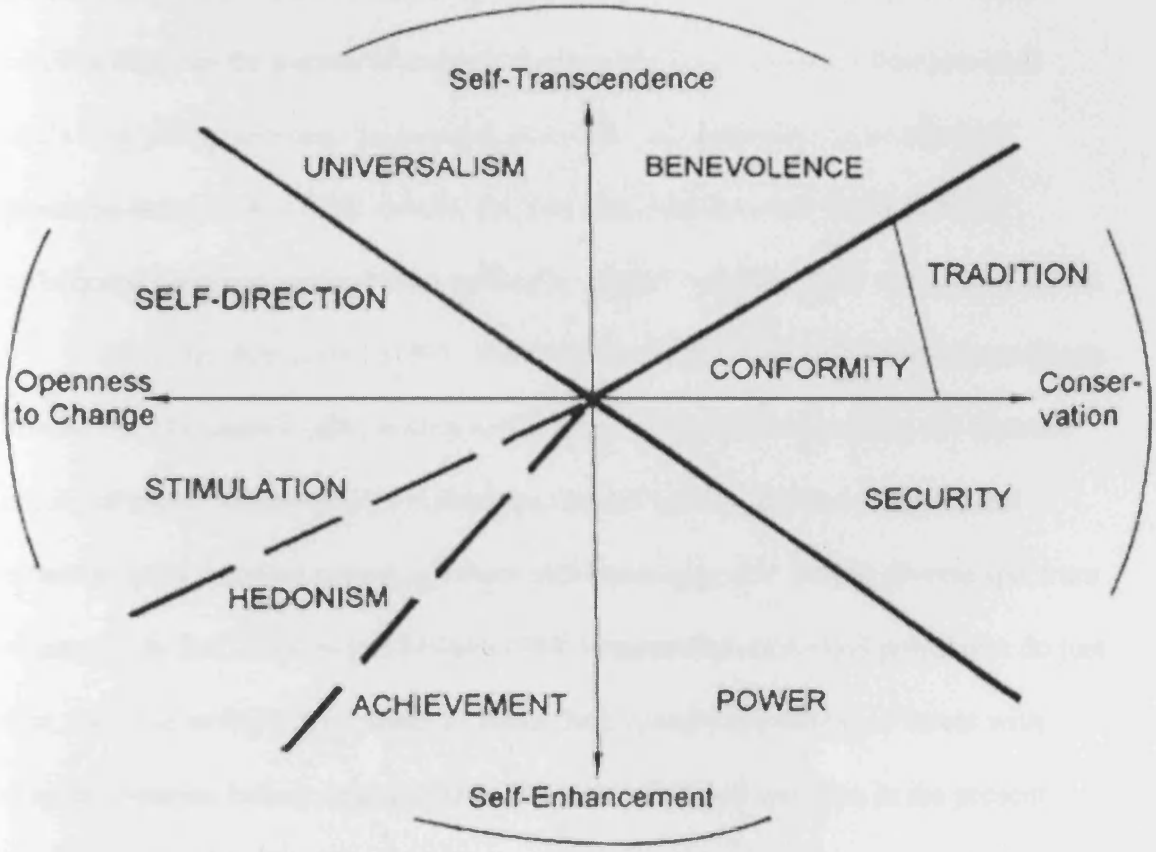


Figure 4.1. The Schwartz (1992) circumplex value structure.

The crucial feature that creates this circumplex is the type of *motives* that values express (Schwartz, 1996). Schwartz (1996, p. 2) described three universal requirements of human existence: "biological needs, requisites of coordinated social interaction, and demands of group survival and functioning." These requirements give rise to a variety of motives, which themselves are expressed as specific values. However, these motives can vary in congruence; actions taken in pursuit of one particular value have psychological, practical, and social consequences that may conflict with the pursuit of another value or be compatible with its pursuit. In the value structure, competing value types are in *opposing* positions around the circumplex, while compatible value types, which fulfil *similar* motives, are in adjacent positions. For example, ambition and loyalty are in opposing positions because actions taken in order to fulfil one of these values often cannot plausibly be pursued at the same time as actions to fulfil the other. One instance of this is the conflict between the pursuit of a career and loyalty to the company that provided one's first job opportunity. In contrast, ambition and capability are in adjacent positions because they fulfil similar motives, and ambition and freedom are in orthogonal positions because they tend to be neither competing nor compatible per se.

Although Schwartz's (1992) theory indicates that values in opposing positions around the circumplex often cannot easily be pursued at the same time, the abstract nature of social values enables politicians, speech writers, business leaders, and others to bring together opposing values and hence appeal to a more diverse spectrum of people. In fact, Gordon and Miller (2004) suggest that successful politicians do just that; they use ambiguity in values to make their appeals to a nation of voters with diverse interests, beliefs, and attitudes. However, the focal question in the present research is whether this use of arguments involving diverse motives is also less

compelling. Although the inclusion of opposing values in an argument may mean that a wider range of people are not alienated, the inclusion of opposing motives may be unlikely to inspire people. Indeed, some research suggests that people are more ambivalent towards individuals who are seen to promote opposing values (Pakizeh & Maio, 2005).

Thus, there is a tension between the present theoretical understanding of the psychological structure of values and their common use in rhetoric. I expect that the use of opposing values in argumentation comes at a rhetorical cost, despite its ability to capture the attention of people with diverse interests. That is, arguments that include opposing values may be less persuasive than arguments that involve similar or congruent values.

4.2.2 Argument Persuasiveness

Arguments can be more or less persuasive, that is, they vary in the degree of conviction they bring about. Aristotle (*Rhetoric*, as cited in Aronson, Wilson, & Akert, 2002, p. 223) distinguished different kinds of factors that affect the extent to which an argument brings about the endorsement of a claim:

> "the first kind depends on the personal character of the speaker; the second on putting the audience into a certain frame of mind; and the third on the proof, or apparent proof, provided by the words."

Social psychological research has confirmed the importance of these factors (Chaiken, 1987; Chen & Chaiken, 1999; Petty & Cacioppo, 1986; for a comprehensive review of this literature see Eagly & Chaiken, 1993). For example, the more credible (e.g., Hovland & Weiss, 1951) or attractive (e.g., Eagly & Chaiken, 1975) the speaker, the more persuasive their argument. Similarly, people who are

motivated and able to think carefully about an issue scrutinize the information about it more carefully than those who are not (see Petty & Cacioppo, 1986; see also Maio & Haddock, in press). What has received the least attention within psychology is Aristotle's third factor: *argument persuasiveness*, that is, the degree of 'proof' provided by the words themselves (see Areni & Lutz, 1988, for discussion of the role of argument quality). Until now, research in the persuasion literature has typically used pre-testing (or statements used in previous research) to select strong versus weak arguments and then used these to examine the influences of the other factors involved in persuasion, including Aristotle's first and second kinds of determinants (e.g., Petty & Cacioppo, 1986). As argued by Areni and Lutz (1988), much of the research conducted within the context of the most popular theories of persuasion has not truly tapped the manipulation of argument strength. Some decades on, no *a priori* manipulation of argument strength has been deployed across studies; this remains a major limitation within the persuasion literature (Johnson, Maio, Smith-McLallen, 2005).[7]

There have been some individual suggestions as to what makes an argument inherently strong or weak, such as the general quality of the argument (Petty & Cacioppo, 1986), its valence (Johnson, Smith-McLallen, Killeya, & Levin, 2004), and

[7] Areni and Lutz (1988) make an important distinction between argument strength and argument valence, both embedded within the construct of argument quality. They propose that argument strength relates to the acceptance of the premises involved in the argument, whilst argument valence relates to the audience's evaluation of the consequences that the argument ties to the attitude object. The current research is one of the first to address the argument strength aspect of this distinction, because it manipulates the relatedness of the values paired by the argument. However, the terminology used throughout the present research will refer to argument persuasiveness in recognition that a strict distinction can not be drawn in research involving social values because the inclusion of values in the arguments may also impact argument valence.

the novelty of the information (Vinokur & Burnstein, 1978), but these do not form an integrated account. Most recently, cognitive psychologists interested in argumentation have proposed a general, Bayesian account of argument strength (Oaksford & Hahn, 2004; see also Hahn & Oaksford, in press; Hahn, Oaksford, & Bayindir, 2005; Hahn, Oaksford, & Corner, 2005) and, in its probabilistic orientation, this account is reminiscent of early models of attitude change (McGuire, 1960; Wyer, 1970; 1974; but see also Anderson, 1981; 1991). Although this account will not be formally applied in the current research, it highlights some issues that must be considered in any investigation of argument persuasiveness. Oaksford and Hahn (2004) reiterate the three main Bayesian assumptions in terms of argument strength: (a) that negative arguments (i.e., arguments that cite a lack of evidence against the conclusion) should be less acceptable than positive arguments, (b) that people's prior beliefs should influence argument acceptance, and (c) that the 'better' the evidence (e.g., more evidence, more reliably evidence, better fit with beliefs about the world) in favour of the conclusion, the more acceptable it should be. Given the aim of the current research to shed light on the use of values in co-value argumentation, I focussed on the third of the three assumptions (quality of evidence) and, in particular, on the 'quality' of the link between the values on the basis of the well-established Schwartz (1992) value circumplex. However, in order to provide a rigorous test of the hypotheses, I ensured that all of the arguments were positive and that the combination of the values in the co-value arguments followed a logical format. Experiments 9 and 10 also addressed the issue of 'prior' beliefs, such as the importance of the values.

Although this research on Bayesian argument strength provides a general framework for my investigation, other cognitive research facilitates specific predictions about co-value argumentation. One of the most well-documented findings

in inductive reasoning is the so-called similarity heuristic. Rips (1975) found that participants were more likely to predict the same effects when a premise and conclusion were similar than when the premise and conclusion were dissimilar. For example, given that all horses on an island had a disease, participants were more likely to predict that cows also had the disease than to predict that mice had the disease. This suggests that the more similar the premise and conclusion are (e.g., horses and cows vs. horses and mice), the more likely people are to transfer and accept information about the two elements. Consistent with this, Yanowitz (2001) found that participants reason more between similar instances of a category than between dissimilar instances. However, this research has focused exclusively on the domain of facts and has not examined values. Examining the role of value relatedness in co-value argumentation poses novel and important theoretical implications because of values' bases in social motives and behaviour, over and above their conceptual category-like attributes.[8]

The examination of co-value argumentation would therefore help to address several relevant issues and shed light on any limitations of such a technique. First, it would help to test whether diffuse abstract concepts like values can indeed function similarly to more concrete categories (e.g., horses, cows). The "fuzziness" of abstract categories, such as values, may render them more permeable and less susceptible to differences in knowledge transfer. As such, values may not function in the same way as other categories; the permeability of these abstract concepts could cause people to perceive associations even between opposing values in the circumplex model. If this was the case, people would perhaps regard arguments combining diverse values as

[8] Of interest, this evidence is also relevant to the use of instantiations described in Chapter 3. In the "analogical mapping" of instantiations, people should more readily transfer and accept information between similar instantiations than between dissimilar ones.

more compelling because of the sheer breadth of interests that they cover, as noted by observers of political rhetoric (Sanders & Hamilton, 2001). This reasoning suggests that the combination of broader concepts (including opposing values) would add to the persuasiveness of the argument.

This possibility reflects a second point of interest: despite the permeability of these abstract concepts, the relative diversity of two values may not in itself be sufficient grounds for people to find any argument linking them as more or less persuasive. People may consider other information while judging the persuasiveness of the argument. In the context of values, this additional information may include the motivational link between the values or even their association in memory. Indeed, there is evidence that motivationally similar *and* opposing values are equally strongly associated in memory (Pakizeh et al., in press). This association may facilitate the transfer of information between the values and, consequently, increase the persuasiveness of any argument that binds them. That is, arguments involving similar values and arguments involving opposing values may *both* be more persuasive than arguments involving unrelated values because the associations in memory between the values results in greater acceptance of the transfer of information between them.

Alternatively, even if the two values are highly associated, any link that binds them is not necessarily a plausible one. How plausible participants find the argument linking the values may play a key role in the extent to which they accept the argument. Two values may be more plausibly linked when the association between them is due to their compatibility and motivational congruence than when the association is due to their incompatibility. That is, arguments involving values fulfilling similar motives may be perceived as more plausible because their connections more closely fit personal experience and people's implicit theories about

social values and behaviours. As a result, people may be more persuaded by recommendations based upon co-value argumentation involving similar values than by recommendations based upon co-value argumentation involving dissimilar (unrelated or opposing) values.

4.2.3 Overview of Experiments

The following three experiments investigated the influence of value relatedness on the persuasiveness of co-value arguments. Because of my interest in the persuasiveness of the arguments *per se*, all arguments were presented in a context of high motivation and ability (see above, and Petty & Cacioppo, 1986). All arguments were consequentialist arguments about values (on consequentialist arguments in general, see Hahn & Oaksford, in press), whereby participants were encouraged to endorse a particular value (the "target value") because it promoted another value (the "reason value"): for example, 'we should encourage helpfulness because it will promote freedom'. The two values fulfilled either similar motives (adjacent in the Schwartz circumplex), orthogonal motives, or opposing motives.

The cognitive and political psychology research described above led me to consider several alternative predictions. On the one hand, the diversity of the arguments involving opposing values may cause these pairs to be most persuasive because of the breadth of the interests they cover (breadth hypothesis). Alternatively, the high degree of association between similar values and between opposing values might cause both pairs to be more persuasive than the pairs that feature orthogonal values (association hypothesis). Finally, a third alternative is the aforementioned role of plausibility, with participants finding the arguments involving the similar value pairs to be more plausible because these arguments are more consistent and

motivationally congruent (plausibility hypothesis). The designs of the following experiments permitted an examination of these three possibilities.

4.3 Experiment 8

4.3.1 Method

Participants

Participants were 60 undergraduate psychology students (51 women and nine men) who participated for course credit. Two additional participants were eliminated from analyses because they failed to follow instructions.

Procedure

Participants took part in groups of three to six people seated approximately four feet apart. All participants were informed that the study was investigating the persuasiveness of different arguments. They were then presented with summaries of arguments on three different topics and asked to rate how persuaded they were by each argument. Participants were then debriefed and probed for suspicion of the experimental hypothesis.

Argument Manipulation

Participants were exposed to three arguments. Each argument claimed that encouraging a target value has beneficial effects on behaviour that promotes another value (the reason value). The target value and the reason value served either similar, orthogonal, or opposing motives in Schwartz's (1992) value system (see Table 4.1). For example, one statement cited one of three benefits of creativity:

> "Research conducted by the Arts Council has found that increasing people's creativity has beneficial effects. The studies found that encouraging people to

be more creative increases their (curiosity in new ideas and methods/influence and impact on others/sense of social order and stability in society)."

Another statement cited one of three benefits of helpfulness:

"Recent research carried out by the Economic and Social Research Council has recommended encouraging people to be more helpful in their workplace. Research found that encouraging helpfulness increases (true friendship within the business environment/the freedom of others within the business environment/company success, profits, pay, and the economy)."

A third statement cited one of three benefits of self-discipline:

"The Educational Research Board has conducted research that suggests encouraging young people to be self-disciplined. The research found that encouraging self-discipline in young people increases (politeness in their behaviour towards others/broadmindedness and tolerance of different ideas and beliefs/their overall enjoyment of life)."

As shown in Table 4.1, each participant received an argument for each of the three target values. Within participants, the arguments promoted either a similar, orthogonal, or opposing value. Because I was not interested in the specific values

Table 4.1

Similar, Orthogonal, and Opposing 'Reason Values' from the Schwartz (1992) Circumplex used in the Experimental Manipulation of Arguments.

Target Value	Similar	Orthogonal	Opposing
Creativity	curiosity	social influence	social order
Helpfulness	true friendship	freedom	success
Self-discipline	politeness	broadmindedness	enjoyment of life

involved, but rather in the influence of the relatedness of the values (similar, orthogonal or opposing), I used a Latin Square Confounded design (see Kirk, 1995) to collapse across the specific values and argument settings and to focus simply on the value relatedness dimension. In this way, I reduced the design from a 3 (target value: creativity, helpfulness, self-discipline) x 3 (value relatedness: similar, orthogonal, opposing) between-subjects design to a three level within-subjects design by collapsing across the nuisance variable of target value (which was interlinked with the setting of the argument).[9] In addition to reducing the complexity of the design, this technique was used in order to reduce task demands that would have arisen from repeated exposure to the same arguments with alternative reason values. The order of presentation of the statements was randomised.

Argument Persuasiveness

After exposure to the arguments, participants were asked to underline the part of the paragraph that they considered to be the reason for encouraging creativity, helpfulness, or self-discipline. This sought to ensure that participants processed the whole argument, rather than focussing on the initial target value (see Langer, Blank, & Chanowitz, 1978). Next, participants completed four questions to assess the persuasiveness of the arguments: "To what extent do you find this reason persuasive?", "How convinced were you by the argument that (creativity, helpfulness, or self-discipline) is a good thing?", "To what extent were you convinced that (creativity, helpfulness, or self-discipline) is good specifically because it increases

[9] It is important to note that the argument settings were almost identical across the three arguments to reduce any possibility that this would impact participants' evaluations of persuasiveness. This also enables the use of the Latin Square Confounded design (Kirk, 1995) to collapse across these arguments and thereby to focus on the relatedness of the values.

(behaviour consistent with similar, orthogonal, or opposing value)?", and "To what extent do you agree with the report's position that (creativity, helpfulness, or self-discipline) is important?" Participants responded to these questions using 10-point scales anchored from 1 (not at all) to 10 (extremely). These four questions were averaged to create a single measure of persuasion (average $\alpha = .81$). Participants were also given an opportunity to list any other factors that made the argument persuasive. This latter task was simply included to increase the validity of the cover story; most respondents provided no additional information and thus this task will not be discussed further.

4.3.2 Results

The effect of sex of participants on the argument persuasiveness factor was not significant (all *p*s > .2). Therefore, all subsequent analyses were conducted across this variable.

The Latin Square Confounded technique provided us with participants' argument persuasiveness ratings for each level of value relatedness. These ratings were analysed using a repeated measures ANOVA, which revealed an effect of value relatedness on participants' ratings of argument persuasiveness, $F(2, 118) = 2.96, p = .056$. Investigation of this effect revealed that participants were more persuaded by arguments that cited similar values ($M = 6.75$) than by arguments involving orthogonal ($M = 6.20$), $t(59) = 2.26, p < .05$, or opposing values ($M = 6.27$), $t(59) = 1.90, p = .06$ (see Figure 4.2). Arguments involving orthogonal and opposing values did not differ significantly, $t(59) = -0.31$, *ns*.

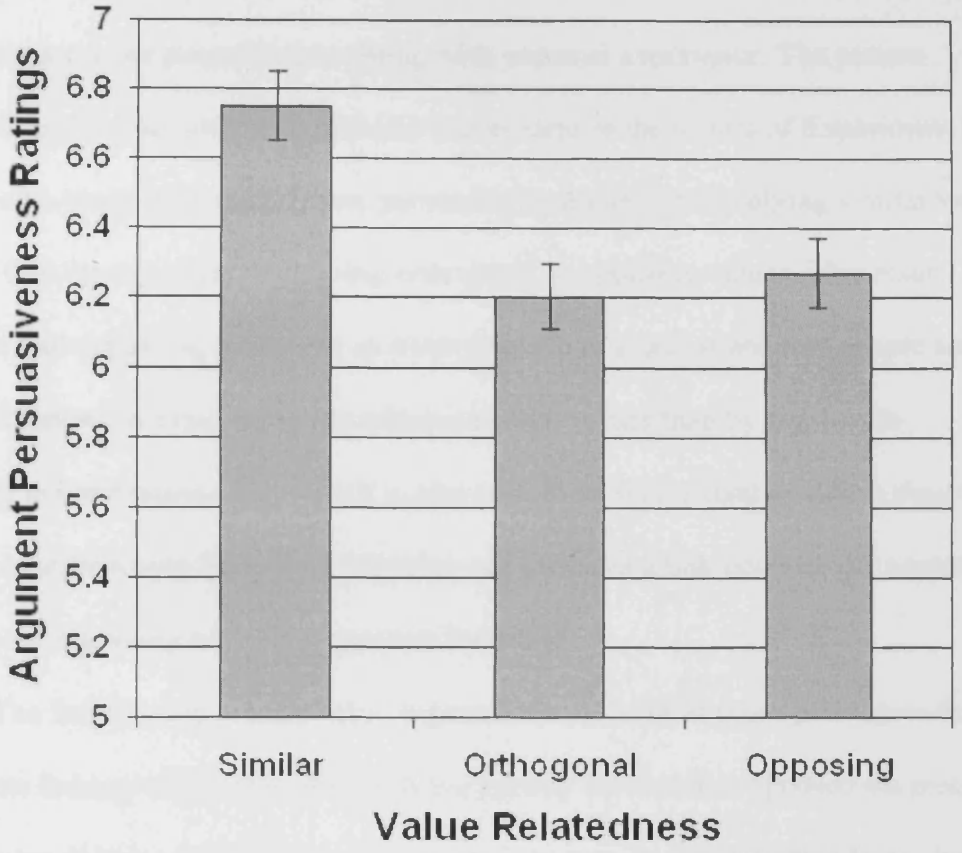


Figure 4.2. Argument persuasiveness ratings for similar, orthogonal, and opposing value arguments in Experiment 8. Error bars indicate standard errors of the mean

4.3.3 Discussion

Experiment 8 provided the first evidence that persuasiveness of arguments is affected by value relatedness and that there may be some limitations to the ways values can be combined. As described in Section 4.2, there are three potential patterns of results that would provide some indirect evidence of the mechanism underlying any effect. The breadth hypothesis predicts that the opposing value arguments would be most persuasive because of the diversity of the components. Alternatively, the association hypothesis suggests that the similar value arguments and the opposing value arguments would be more persuasive than the orthogonal value arguments because of their stronger associations in memory. Finally, the third hypothesis

predicts that the similar value arguments would be most persuasive because these arguments are more plausible and fitting with personal experience. The pattern predicted by this plausibility hypothesis was evident in the results of Experiment 8. Specifically, participants were more persuaded by arguments involving similar value motives than by arguments involving orthogonal or opposing values. This result indicates that appealing to diverse motives does come at a cost and that people are more influenced by arguments that address similar values than by arguments involving diverse values. This result is also consistent with extant evidence about the transfer of information between categories and provides a link between the cognitive research on reasoning and the persuasion literature.

The fact that the similar value arguments were seen as more persuasive than arguments linking values that were psychologically unrelated or opposed suggests that the plausibility of the link between the values may be the important factor for the relatedness effect. The arguments linking similar values may be more plausible and fitting with personal experience because these values are motivationally more compatible than orthogonal or opposing values. The increased plausibility of this link may, in turn, make the argument more acceptable to participants. However, before interpreting this result further, I sought to replicate the effect with a more stringent design in Experiment 9. I then directly examined the role of argument plausibility in Experiment 10.

4.4 Experiment 9

Although a range of values was used in the previous experiment, an alternative explanation for the results of Experiment 8 would arise if the similar

values were, by chance, more important to participants than the orthogonal and opposing values. If this was the case, it could be the importance of the values involved and not value relatedness that was driving the effect. For example, people may view an argument as more persuasive if its premise is a value that they consider more important than if its premise is a value that they consider less important. Experiment 9 used Schwartz's (1992) Value Survey to measure the importance of the different values as guiding principles in participants' lives. In conjunction with a replication of the task used in Experiment 8, this measure enabled me to investigate any value importance differences across the value relatedness conditions of similar, orthogonal, and opposing values.

4.4.1 Method

Participants

Participants were 60 undergraduate psychology students (38 women, 14 men, and eight who failed to indicate their gender) who participated for course credit.

Procedure

Participants took part in groups of three to six people, seated approximately four feet apart. All participants were informed that they would be taking part in two different "studies" that had been combined because they were short. The experimenter randomly assigned the materials from Experiment 8 (average α for persuasiveness ratings in Experiment 9 = .81) and the Schwartz (1992) Value Survey to roles as the "first" or "second" study. In other words, the order of these two tasks was counterbalanced across participants. There were no significant order effects. Participants were then debriefed and probed for suspicion.

Value Importance

The instructions for the Schwartz (1992) Value Survey noted an interest in assessing the importance that people attach to different social values. Participants were told that they would be presented with a list of 56 social values and were asked to rate the importance of each value as a guiding principle in their life. Each value was presented with a standardized definition from the Schwartz Value Survey, and the list included all of the 12 values (both target and reason values) involved in the manipulation of value relatedness (along with the 44 others). Participants were asked to read through the entire list of values before rating each value. The value ratings were then made using a scale from -1 (opposed to my values) to 7 (extremely important).

4.4.2 Results

There were no significant effects of sex on any of the factors investigated (all *p*s > .14), so all of the subsequent analyses were conducted across this variable.

As in Experiment 8, the Latin Square Confounded nature of the design allowed me to collapse across individual value settings and focus on value relatedness. Participants' argument persuasiveness ratings were analysed using a repeated measures ANOVA. Results indicated a significant effect of value relatedness on participants' ratings of argument persuasiveness, $F(2, 118) = 4.13, p < .05$. Replicating Experiment 8, participants were again more persuaded by arguments involving similar value motives ($M = 6.48$) than by arguments involving values that served orthogonal ($M = 6.02$), $t(59) = 2.01, p < .05$, or opposing motives ($M = 5.75$), $t(59) = 2.89, p < .01$ (see Figure 4.3). Again, there was no significant difference between arguments involving orthogonal and opposing values, $t(59) = 0.94$, *ns*.

Value Importance

To investigate the potential role of value importance, participants' mean ratings of the target and reason values (i.e., creativity and curiosity/true friendship/ politeness, in the 'similar' condition, helpfulness and social influence/freedom/ broadmindedness in the 'orthogonal' condition, and self-discipline and social order/ success/enjoyment of life in the 'opposing' condition) were analysed using a three-level (similar vs. orthogonal vs. opposing) repeated measures ANOVA. There were no significant differences in importance across the three types of value relatedness, F (2, 116) = 0.84, *ns*, ($p > .4$). Therefore, the relatedness effect on argument strength

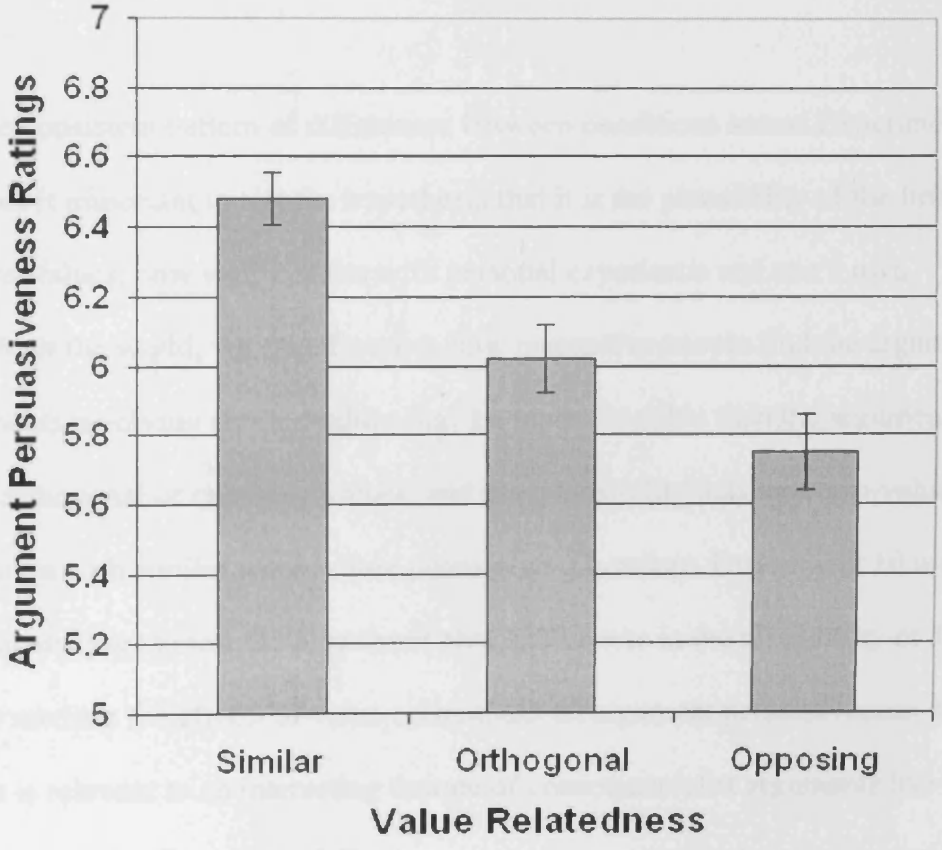


Figure 4.3. Argument persuasiveness ratings for similar, orthogonal, and opposing value arguments in Experiment 9. Error bars indicate standard errors of the mean.

was not driven by spurious differences in the importance of the values across the value relatedness conditions.

4.4.3 Discussion

In Experiment 9, participants again found arguments involving similar values to be more persuasive than arguments involving orthogonal or opposing values. These results replicated those of Experiment 8. In addition, the relatedness effect was not attributable to differences in value importance across conditions which rules out this alternative explanation for the value relatedness effect.

4.5 Experiment 10

The consistent pattern of differences between conditions across Experiments 8 and 9 makes it important to test the hypothesis that it is the plausibility of the link between the values, how well this fits with personal experience and one's own thinking about the world, which influences how persuasive people find the argument. The arguments involving similar values may be more plausible than the arguments involving orthogonal or opposing values, and this plausibility may make co-value argumentation with similar values more persuasive. Therefore, Experiment 10 used mediational analyses to test the hypothesis that differences in the plausibility of the arguments mediate the effects of value relatedness on argument persuasiveness. This hypothesis is relevant to an interesting feature of consequentialist arguments like co-value argumentation. Consequentialist arguments are arguments that recommend a particular action because it will bring about a particular consequence. The strength of such arguments is influenced *both* by the importance attached to the consequence and

by the probability that the action will indeed bring about this consequence (see Hahn & Oaksford, in press, for detailed analysis). Implausible arguments are those where the action is seen to be unlikely to lead to the consequence (e.g., 'we should ban cannabis, because otherwise everyone will become a drug addict'). But even plausible arguments where the action-consequence link is likely can be unpersuasive if one does not care much about the consequences (e.g., 'we should ban cannabis, because cannabis use tends to lead to changes in music preference'). Thus, it is important to examine the role of perceived plausibility directly.

Although the arguments used thus far are consistent with the plentiful examples of co-value argumentation in philosophy, politics, and rhetoric, such arguments are often embedded within other information. Therefore, Experiment 10 aimed to examine the effects of value relatedness within a realistic piece of political propaganda; embedding the value argument within a real-world persuasion context. To achieve this aim, actual policy statements from a British political party were slightly modified and presented to participants the day before the 2005 British General Election. Participants were asked to rate the persuasiveness of the policy statements (arguments) they received and to rate the importance of the reason and target values to them personally. Because I had already shown the value relatedness effect across 12 social values, participants in this experiment were presented with only one argument, which either involved similar or opposing motives. (The orthogonal condition was not included.)

4.5.1 Method

Participants

Participants were 82 students and members of the public, who were approached in a university refectory the day before the British General Election in May, 2005. Participants were paid £1 for their participation. Because sex of participants had not had an effect on the measures in the previous experiments, this variable was not recorded in the current research.

Procedure

Participants took part individually or in groups of two to four people. All participants were informed that they were being approached because it was the day before the General Election and some of the research related to political policies. In addition, participants were told that they would be taking part in two "studies" that had been combined because they were short. Participants were randomly assigned to read a policy statement that used a co-value argument with either similar or opposing values. I randomly assigned the persuasion materials and a shortened Schwartz (1992) Value Survey to roles as the "first" or "second" studies, such that the order was counterbalanced across participants. Again, no significant effects of order were evident. Participants were then debriefed and probed for suspicion.

Argument Manipulation

Participants were exposed to a policy statement that was taken from the political manifesto of a British political party. To avoid the influence of political affiliations to a British party, all participants were informed that this policy statement was taken from the (fictional) FDP party in Australia. The policy related to social justice, and I manipulated whether it was supported by a similar social value (broadmindedness) or an opposing social value (wealth). The majority of the text

across the two conditions was identical and was taken verbatim from two political policy statements with a few minor adaptations to accommodate the manipulation. Equal amounts of information were provided in both conditions. The similar-value policy statement was worded:

> "FDP is the party of social justice and broadmindedness. Reforms introduced by the FDP have built a fairer and more just society. Our country now has the most comprehensive social justice legislation in the United Nations and our commitment to protection for every citizen is also enshrined in the 1998 Human Rights Act.
>
> In addition, we have introduced a range of policies which protect people from discrimination on the grounds of disability, help more disabled people to find and stay in work and support those whose disabilities mean they are unable to work.
>
> We know that legislation alone cannot achieve the systemic and cultural changes we need to make diversity and human rights core values in our society. So, in order to bring about measurable improvement in the position of those who are discriminated against, we believe that all our citizens should receive education that encourages them to be broadminded and tolerant in every aspect of their lives. Increasing broadmindedness *will* increase the fairness of our society."

The opposing-value policy statement was worded similarly, except that the first sentence became: "FDP is the party of social justice and wealth." In addition, the last two sentences were slightly modified:

> "So, in order to bring about measurable improvement in the position of those who are discriminated against, we believe that all our citizens should be able

to strive to secure greater wealth through every aspect of their lives.

Increasing the pursuit of wealth *will* increase the fairness of our society."

Argument Persuasiveness

The argument persuasiveness measures were simplified to fit the policy context. The adapted measures included four questions: "How persuaded were you by this policy statement?", "How convinced were you by this policy statement?", "If all other variables were equal, would you vote for this party on the basis of this policy statement?", and "Aside from how important you consider these issues to be, how strong do you find this policy statement?" Participants answered these questions on 10-point scales from 1 (not at all) to 10 (extremely) or from 1 (not at all) to 10 (definitely). These measures were averaged to form an overall measure of argument persuasiveness ($\alpha = .82$).

Argument Plausibility

Immediately after completing the persuasiveness ratings, participants were asked to complete two questions that assessed the plausibility of the argument: "How plausible did you find this policy statement?", and "To what extent do you find this policy statement believable?". Participants answered these questions on 10-point scales from 1 (not at all) to 10 (extremely). These items were combined to form one overall measure of the plausibility of the argument ($r = .63$).

Argument Readability

An additional item, "How easy to comprehend and understand was this statement?", was included to ensure that participants understood both sets of policies equally. Participants responded to this question using a 10-point scale from 1 (not at all) to 10 (extremely).

Value Importance

A 12-item version of the Schwartz (1992) Value Survey was used. The survey included three items from each of the four value domains, including the target value of social justice and the similar (broadmindedness) and opposing (wealth) values.

4.5.2 *Results*

Argument Readability

To ensure that participants equally understood the two policy statements and that any differences in argument strength did not stem from participants' failure to understand one of the policies, participants' ratings of the comprehensibility of the statements were analysed using a one-way (value relatedness: similar vs. opposing) ANOVA. This analysis revealed no significant differences in comprehension of the statements across the two conditions, $F(1, 80) = 1.75$, *ns*.

Argument Persuasiveness

A one-way (value relatedness: similar vs. opposing) ANOVA was conducted on participants' ratings of argument persuasiveness. Consistent with the previous experiments, participants were more persuaded by the political policy statement that cited values serving similar motives ($M = 5.99$) than by the policy statement that cited values serving opposing motives ($M = 5.13$), $F(1, 80) = 7.65, p < .01$.

Value Importance

A one-way (relatedness: similar vs. opposing) ANOVA was conducted to investigate any differential importance of the values involved in the arguments. There was a significant difference between the mean value importance for the similar reason value ($M = 5.27$) and the opposing value ($M = 4.40$), $F(1, 80) = 13.56, p < .001$. To control for any effects of value importance on participants' acceptance of the

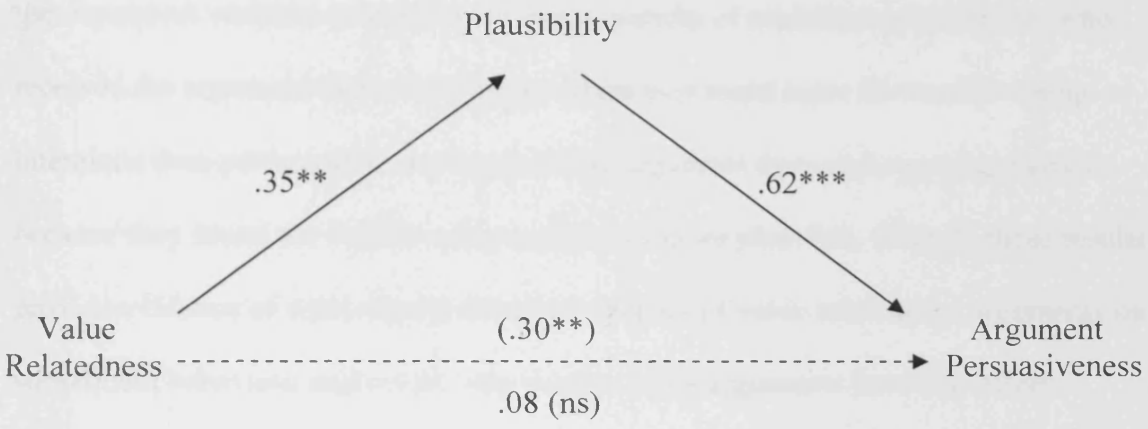
argument, the value relatedness dummy variable and the ratings of value importance for the target and reason values were entered as predictors of argument persuasiveness in a regression analysis. Consistent with the ANOVA analyses, there was a main effect of value relatedness: participants were more persuaded by the policy statement that cited a similar value in support of social justice than by the policy statement that cited an opposing value, $b = 0.94$, $t\,(78) = 2.96$, $p < .005$, even when controlling for the importance of both target and reason values. There were no main effects of value importance (all $ps > .10$). Therefore, value importance does not account for the link between value relatedness and argument persuasiveness.

Argument Plausibility

To investigate the hypothesis that the plausibility of the argument plays a role in the relatedness effect, I tested whether participants found the policy statements to be differentially plausible. A one-way (value relatedness: similar vs. opposing) ANOVA revealed that there was a significant effect of the experimental manipulation on participants' ratings of argument plausibility, $F\,(1, 80) = 7.07$, $p < .01$. Consistent with the effects on the argument persuasiveness ratings, participants found the policy statement involving similar values to be more plausible ($M = 5.89$) than the policy statement involving opposing values ($M = 5.16$).

To further examine the role of plausibility, Baron and Kenny's (1986) three tests of mediation were applied (see Figure 4.4). Using regression analyses, value relatedness significantly predicted participants' ratings of argument plausibility (mediator), $b = 1.04$, $t\,(80) = 3.37$, $p < .005$, thus fulfilling the first requirement for mediation. Consistent with the second requirement, and as demonstrated in the ANOVA above, value relatedness significantly predicted participants' argument persuasiveness ratings, $b = 0.86$, $t\,(80) = 2.77$, $p < .01$. Finally, the third test was

fulfilled: in a regression analysis that included value relatedness and argument plausibility as simultaneous predictors of argument persuasiveness, the mediator (argument plausibility) significantly predicting participants' ratings of persuasiveness, $b = 0.61$, $t\ (79) = 6.73$, $p < .001$, and reduced the influence of value relatedness to non-significance, $b = 0.23$, $t\ (79) = 0.85$, *ns*. The Sobel test also confirmed mediation, $z = 3.01$, $p < .005$.



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

Figure 4.4. Path diagram showing the mediational link between value relatedness and argument persuasiveness via plausibility (standardised regression coefficients).

4.5.3 Discussion

Using political policy statements the day before a General Election, participants were more persuaded by a statement that supported a value using another value that served a similar motive than by a statement that cited as support a value that served an opposing motive. In addition, this effect occurred when controlling for levels of value importance, which is consistent with the previous experiment. Most importantly, the effects of value relatedness on argument persuasiveness were mediated by the perceived plausibility of the arguments. Thus, the results provided

the first direct indication that co-value argumentation using similar values is more persuasive because people find the links between similar values to be more plausible than the links drawn between opposing values, perhaps because of the greater behavioural impact of similar values on everyday life (Schwartz, 1992, 1996).

It is also worth noting that my measure of persuasiveness included a question relating to behavioural intention: participants' likelihood of voting for the party on the basis of this policy statement. Regression analyses solely using this measure as the dependent variable revealed an identical pattern of mediation; participants who received the argument that used similar values expressed more favourable voting intentions than participants who received the argument that used opposing values because they found the similar value arguments more plausible. Overall, these results provide evidence of a potentially important impact of value relatedness arguments on subsequent behaviour and reveal why similar value arguments have this effect.

4.6 Discussion

Across three experiments, I investigated the impact of the psychological relation between values on the persuasiveness of co-value arguments. Experiment 8 revealed that people are more persuaded by arguments involving similar values than by arguments involving orthogonal or opposing values. Experiment 9 replicated this pattern of results and ruled out the possibility that the importance of the values involved in the arguments was driving the value relatedness effect. Using real-life persuasive arguments derived from political policy statements, Experiment 10 revealed that arguments linking values that express similar motives are more plausible. Using mediational analyses, I showed that the effects of value relatedness

on persuasion occur through its influence on the plausibility of the argument. In addition, Experiment 10 provided evidence to suggest that this effect is strong enough to emerge even when the value relatedness information is presented very briefly within much more abundant text on political policy. Together, these results indicate that the motivational relatedness of values is a key determinant of the success of co-value argumentation.

This research has provided the first direct empirical test of co-value argumentation and indicates that value relatedness can now be used as an *a priori* predictor of argument persuasiveness. In relation to the discussion in Chapter 1, an important implication of this evidence is that, although appealing to diverse values may have the positive outcome of appealing to a more diverse range of voters (Gordon & Miller, 2004), the effectiveness of this strategy may be undermined by a reduction in the persuasiveness of the arguments to the audience. When the arguments contained similar values as support for each other, participants in the current research perceived the arguments linking the values as more plausible and hence showed more agreement with the arguments. This pattern was obtained across a wide variety of values, using two sentence arguments about research findings, and using complex real-life policy statements taken from actual political party propaganda. Perhaps, then, some politicians employ a delicate trade-off between appealing to people with diverse value priorities and being persuasive. Successful politicians may be more able to appear cogent and trustworthy, while capturing diverse interests. The necessity of capturing seemingly opposing interests, without appearing disingenuine, may be the biggest challenge that a politician may face, and this challenge may explain why "trustworthiness" is regarded as a vitally important trait for politicians to project (see Priester & Petty, 2003).

The current findings also act as a novel experimental test of the Schwartz (1992) circumplex structure of values. Extensive previous research on the value system (e.g., Schwartz, 1992, 1996; Schwartz & Bilsky, 1987) has used correlational methods to investigate the nature of the value structure. However, using novel methodology, the present research has provided further evidence at least partly consistent with the circular structure of the value system. The influence of the similar arguments because of their motivational congruence and consistency supports the greater motivational similarity of adjacent values compared to orthogonal and opposing values.

The integration of ideas behind the inductive reasoning research in the cognitive domain and the persuasion research in the social domain raises other provocative avenues to explore. One interesting issue is the nature of effects evident in multi-premise arguments. These arguments are distinct from the types of arguments used in the current research, which included one premise and a subsequent conclusion. When two *separate premises* are used in multi-premise arguments, more diverse premises are more persuasive. For example, the premises that "lions have sesamoid bones" and "tigers have sesamoid bones" are less convincing evidence for the conclusion that "bears have sesamoid bones" than the premises that "lions have sesamoid bones" and "cows have sesamoid bones." This effect occurs because lions and cows are more diverse and, therefore, the assumption that these two animals have the same property makes the argument that bears also have this property more persuasive (see Osherson, Smith, Wilkie, Lopez, & Shafir, 1990, for further discussion of this and other argumentation phenomena). An interesting extension of the current research would be to investigate whether this 'diversity' phenomenon when two separate premises are used would also hold for arguments involving values.

The present research focused on the effects of relatedness in conditions that engendered high scrutiny of the arguments, because this is the best context for obtaining differences between strong and weak arguments (Albarracin & Wyer, 2001; Chen & Chaiken, 1999; Kruglanski & Thompson, 1999; Petty & Cacioppo, 1986). Nonetheless, I do not suggest that the relatedness effect is limited to this motivationally intensive route to persuasion. The similarity of the values involved in arguments may also be used as a persuasion heuristic, enabling it to influence participants who are less interested in the issue at hand. This speculation is based on evidence of automatic links between values in memory that are consistent with the circumplex model of values (Pakizeh et al., in press). These links suggest a potential perceptual fluency for arguments that cite similar values and opposing values, perhaps enabling quick acceptance or refutation of them, respectively. This hypothesis would benefit from future research that manipulates the motivation to process the messages.

The impact of the combination of similar values fits with research in the attitudes literature on cognitive consistency (see Eagly & Chaiken, 1993, for a review). This early work emphasised the importance of consistent attitudes and beliefs and proposed that people work towards maintaining or returning to consistency both internally and interpersonally between themselves and important others (e.g., Abelson, 1968; Heider, 1946; Newcomb, 1953; Rosenberg, 1960). A related motivational congruence process may underlie both this consistency effect (see Simon, Snow, & Read, 2004, for further elaboration on the general phenomenon of consistency) and the combination of values in co-value argumentation. This is an interesting domain for further research that would, I propose, further highlight the central role of values. Nevertheless, whether the relatedness effect is the result of a

generic consistency bias or a motivational influence unique to values, the current research has achieved its aim of examining the use of co-value argumentation and shedding light on the process underlying this prevalent use of value terms.

4.7 Chapter Summary

The research in this Chapter focused on a type of argument commonly used in a diverse range of fields, from politics to business and from philosophy to marketing, it uncovered the importance of the motivational relations between values in determining the persuasiveness of the arguments that bind them. The experiments provided some of the first empirical tests of co-value argumentation techniques and an insight into their limitations. Interestingly, it seems that both the 19th Century Communist Party and George W. Bush were fortunate in their articulation of arguments linking values that are motivationally congruent and in valuing the consistency and plausibility that such arguments provide.

This Chapter has shed light on one of the most prevalent uses of social value terms that people encounter in everyday life and provided further evidence for the powerful impact of values. The limitations of co-value argumentation highlighted in the current research empirically demonstrate the underlying structure of values and the constraints that this structure places on the use of values in such arguments. The next chapter reviews the research presented in Chapters 2, 3, and 4 and discusses the broader implications of the findings.

Chapter 5
General Discussion

5.1 Chapter Overview

The aim of this Chapter is to review the research presented in the Thesis and to discuss the implications of the findings. To achieve this aim, I summarize the results of the 10 experiments and discuss their implications for current thinking on social values, human decision-making, and behaviour. I also outline some potential directions for future research. Given the parallel nature of the three streams of research, much of the discussion of specific implications has been elucidated in the discussion sections of the individual chapters. Therefore, the focus of this Chapter is the broader, inter-related aspects of the research findings.

5.2 Review of the Main Findings

As discussed in Chapter 1, interest in social values comes from a diverse range of disciplines. Values are considered to be unique and important constructs by philosophers, business leaders, politicians, and scientists and evidence of their influence has been debated for centuries. Nevertheless, despite this broad base of interest, there has been little empirical research into the *use* of values and the processes that underlie this use. Moreover, there is continuing conflict between researchers who see values as guiding principles (e.g., Rokeach, 1973; Schwartz, 1992, 1996) and those who see values as justifications for actions taken on the basis of value-irrelevant consequences (e.g., Kristiansen & Zanna, 1994; Seligman & Katz,

1996). Therefore, Chapter 1 highlighted the necessity for further research into the use of values and emphasised the need for wider understanding of the underlying processes. The subsequent experimental chapters (Chapters 2, 3, and 4) then individually presented evidence that achieved the primary aim of the Thesis; they each provided a deeper insight into how social values are used, achieving this aim in different ways.

5.2.1 Decisions: Values or Consequences?

In Chapter 2, I addressed the fundamental issue of whether or not values are used as the basis for decision-making. This was the first empirical research to investigate the use of social values using dilemmas that manipulated both the values involved and the value-irrelevant consequences of the decisions. By examining the causal effects and simultaneous impact of the variables, the research was able to determine *how* values are used in such situations. The results of Experiments 1 and 3 provide evidence that values do have an important impact on decision-making in an *a priori* fashion and are not simply applied as post-hoc justifications for decisions made on other bases. Moreover, Experiment 1 also provided some of the first empirical evidence that participants are aware of the influence that values have on their decision-making.

On the other hand, Experiment 2 revealed that values are not used equally in all situations. In fact, it seems that the aboutness principle (Higgins, 1998a) plays an important role in determining whether decisions are based on values or consequences. Consistent with Maslow's (1970) hierarchy of needs, individuals more automatically consider personal consequences in decisions. Such consequences are more basic than the use of principles, which are higher-order and therefore require thought and

deliberate consideration. This result is also consistent with research by Tetlock et al. (1996) who found that reasoning with values is more cognitively complex and effortful than reasoning with value-irrelevant items. Consequently, people do not always engage in reasoning with values. In the current research, only when participants expected to explain their decision did they view the decision as being 'about' the value involved and thus used the value as a guiding principle. Therefore, the use of values is more complex than the extant literature would propose. Values are not solely guiding principles applied in all relevant contexts; rather, the use of values critically depends on situational factors.

5.2.2 Application: Abstract to Specific

In Chapter 3, I addressed the second issue that arises from the values-as-abstract-principles versus values-as-justifications debate. That is, if values are used as guiding principles, as seen in Chapter 2, *how* do these general abstract principles impact behaviour within specific contexts or situations? I proposed that values must be instantiated within the specific context in order for them to impact behaviour. If this is the process underlying value application, then the typicality of the value instantiation should affect the use of the value. Four experiments (Experiments 4 - 7) confirmed this hypothesis. Using reasons for the values of equality (self-generated by participants in Experiment 4 and provided to participants in Experiment 5), the results provided the first empirical evidence that this process of applying a value to a specific context occurs through value instantiation. Experiments 6 and 7 then took this one step further by removing the presence of reasons all together. Thus, participants engaged in a process more akin to real-life and still the typicality of the value instantiation influenced participants' subsequent behaviour. This evidence suggests

the necessity for a major shift in thinking about the use of social values. Throughout the four experiments, no evidence of changes in the properties of the value of equality at an abstract level was noted. Nevertheless, participants were significantly more egalitarian following a typical instantiation of the value than following an atypical instantiation. Therefore, values seem to impact behaviour in specific contexts through instantiations in those contexts, and it is the instantiations themselves and not the value at the abstract level that drives this effect. This is a new advance in the literature on social values and has important implications discussed in Section 5.3.

5.2.3 Persuasion: Similar is Best

Chapter 4 addressed a prevalent and popular use of social values that has been ignored by the extant literature. Although distinct from the uses of social values addressed in Chapters 2 and 3, my research sheds light on a use of values that occurs on a regular basis. As a result, my investigation of the use of values and their impact on decision-making and behaviour is made more complete by addressing this common use of values. Across three experiments (Experiments 8 - 10), I examined the impact of the underlying relations between values combined in co-value arguments on the persuasiveness of the arguments themselves. Using the well-established Schwartz (1992) circumplex structure of values, I found that arguments combining motivationally similar values were more persuasive than arguments combining orthogonal or opposing values. Experiments 8 and 9 provided initial evidence that this effect is related to differences in the plausibility of the arguments and ruled out several alternative explanations. Experiment 10 directly tested the plausibility hypothesis using mediational analyses and found that participants did perceive arguments involving similar values to be more persuasive because they

found these arguments more plausible than arguments involving orthogonal or opposing values.

This research used both 'sound bite' style arguments as are often used by the media (Experiments 8 and 9) and more complex political propaganda (Experiment 10). The evidence obtained using the complex propaganda is particularly noteworthy. This propaganda used actual political policy statements as co-value arguments and revealed that participants found the policy involving similar values to be more persuasive than the policy involving opposing values because they found the similar policy more plausible. This research was run the day before a General Election when political policies and voting decisions would have been particularly salient to participants. Moreover, the co-value arguments were embedded within a much longer policy statement that did not differ across conditions. Thus, the results provide provocative evidence of the powerful impact of values and value-based arguments.

5.2.4 Summary

One conclusion is evident from the research presented in each of the three experimental chapters; social values have a broad impact and a powerful effect on people in diverse ways. There is evidence that values act as guides in decision-making, that they are used as justifications to explain decisions, that the manner of their instantiation influences behaviour and that they are used, with important effects, in persuasive arguments. The next section will address some of the broader implications of the research findings and propose some potential directions for future research.

5.3 Research Implications and the Future

The evidence for the impact of values on behaviour through value instantiation (Chapter 3) is probably the most important finding in the Thesis. These results provide a new theoretical standpoint from which to understand values; they are not solely rigid guiding principles (Schwartz, 1992, 1996) applied to situations in a rule-like fashion. Rather, their impact on behaviour is importantly mediated by prior instantiations of the value in specific contexts. This finding draws attention to a need for research on the mental processes that underlie the way that values are brought to bear in everyday life. Moreover, it adds an important caveat to the overarching role of values as rigid guiding principles. If an 'abstract trans-situational guiding principle' is used in different ways depending on its instantiation, this severely restricts its universal nature. This new conceptualization of the process underlying value application provides a more flexible framework of values than those currently predominant in the literature.

Thus, this finding allows an integration of the two competing roles of values outlined in Chapter 1. Schwartz and colleagues (Schwartz, 1996; Schwartz & Bilsky, 1986; Schwartz et al., 2001) conceptualized values as abstract trans-situational guiding principles. In contrast, Seligman and Katz (1996) proposed that values do not exist at a general, abstract level, but rather they exist as dynamic and transient instantiations within specific situations that can be used to justify or explain decisions made on the basis of other factors (Kristiansen & Zanna, 1994). The flexible value instantiation framework proposed in Chapter 3 allows for the trans-situational nature of values, as seen in the consistency of the strength-related value properties (e.g., centrality) after different value instantiations. Moreover, the framework allows for the

application of values in some contexts, but not in others, because of the impact of the specific instantiations of the value on subsequent behaviour. In this way, both perspectives can be integrated within this flexible value framework.

Another particularly interesting implication of the research findings presented in Chapter 3 is the evidence that elaboration of reasons (Maio et al., 2001) is *not* necessary for values to be bolstered and thus to increase pro-value behaviour. The results of Experiments 6 and 7 show that providing participants with a situation describing an incident of typical discrimination resulted in more value-consistent behaviour than when participants read about a situation involving an incident of atypical discrimination or were simply given an opportunity to affirm the value of equality. This is the first evidence that bolstering the narrative (affective and behavioural) support of values can have similar effects to bolstering argumentative or cognitive support.

It would be interesting to investigate whether this bolstering of narrative support for values has other effects consistent with those found for the bolstering of cognitive support. For example, Bernard et al. (2003a) found that building cognitive support for a value decreased the influence of persuasive anti-value messages and made values more resistant to manipulation. In one experiment, an essay attacking the value of equality caused a dramatic drop in participants' endorsements of the value's importance. This effect was significantly reduced, however, when participants were first given an opportunity to consider arguments for and against the value. Whether building narrative support for these values would have a similar inoculation effect remains to be examined.

Another important implication of this research is its potential to address the question of how values change over time. Rokeach (1973, p. 6) proposed that any

conception of social values "must be able to account for the enduring character of values as well as their changing character." The theories of values in the extant literature do not propose specific processes through which values can change, however. In fact, there is very little research on this topic at all and what little there is, says nothing about such processes. For example, although people share some of the same values, people from different generations, even within the same family, have divergent values. Over time, however, cultural value systems evolve as individuals from the older generations reconcile themselves with the younger generation's values (Teo, Graham, Yeoh, & Levy, 2003). Similarly, Rohan (2000) suggested that coming into contact with people who have different priorities facilitates changes in beliefs about the world and one's own values. I propose that this could occur through a change in value instantiations: value instantiations that were seen as atypical could become more typical over time. This process could change the priorities that people allot to values because of new or broader ways in which the values are instantiated. These proposals are consistent with research by Inglehart and Baker (2000). Using data from the World Value Surveys, they found evidence from 65 Societies indicating that values can and do change over time, whilst they also maintain something of the cultural heritage of the society.

Differences across generations are not solely due to differences in value priorities, however. People from two sides of a divide (whether generational, racial, or political) may consider many of the same values to be equally important and relevant to the situation (Kristiansen & Zanna, 1988; Rokeach, 1973). However, individuals from these groups can still come into conflict (see quotation from Rokeach, 1973, pp. 183-184, in Section 1.6). For example, across cultures, or even subcultures (see Peppas, 2001), there can be tensions in relation to values, despite

both sides sharing the vast majority of their values (Schwartz, 1996) and even value priorities. To illustrate this point, consider the following situation. Members of two cultures may consider the value of freedom to be equally important, but the instantiations of the value may differ in crucial ways. A typical instantiation of freedom in Saudi Arabia may relate to freedom to own property, whereas a typical instantiation of freedom in Denmark may relate to freedom of the Press. Thus, the publishing of cartoons depicting Mohammad in Denmark was consistent with their instantiation of freedom. Nevertheless, this action resulted in moral outrage in Saudi Arabia, despite the fact that members of both cultures would earnestly agree that freedom is important. In other words, individuals may react to a situation in very different ways dependent on the typical value instantiation for them, even if they both consider the value to be equally important.

This value-instantiation framework may also be informative in research into racial attitudes. Theories of racism (e.g., McConohay & Hough, 1976; Sears, 1988) propose that that value violation plays an important role in levels of racism and racial attitudes. Consistent with the illustration above, action taken by one group in order to protect or enhance a value (e.g., freedom) may not be understood or accepted by the other group, even if they put a similar priority on the value in question. Future research should consider the importance of value instantiations in programs of conflict resolution that use perspective-taking to reconcile opposing sides (see Krauss & Morsella, 2000). For example, many citizens in Western societies regard orthodox Muslim practices for the treatment of women as violations of equality, whereas many practicing Muslims would, in fact, regard many Western practices as violating equal status for women (e.g., by making them sex objects).

This topic of value violation is interesting for a number of reasons, primarily because people face tradeoffs between values every day (Tetlock et al., 1996) and thus are unable to avoid value violation. Despite the fact that values are used to guide judgments of one's own actions and the actions of others (see Rohan, 2000; Schwartz, 1992), people engage in value violations on a daily basis, even of values that they consider to be very important (Maio et al., 2001). The research presented in Chapter 2 provides an indication of how people can perform such value violating actions without facing negative consequences. If the value, and thus the violation, is not salient to the individual, then he or she should be able to make decisions in contradiction of their values, whilst escaping the dissonance and moral outrage this could otherwise involve (Baron & Spranca, 1997; Haidt, Koller, & Dias, 1993).

On the other hand, if people do perceive a decision as involving conflicting values between which they must choose, they have the advantage of framing the decisions as a choice between two important principles. As a result, they can engage in substantial justification of their decision on the basis of the other value as seen in Experiment 1. This result is consistent with research showing that people who do make a decision in contradiction of a value engage in substantial impression management techniques in order to conceal their decision or to justify it and 'save face' (e.g., Calabresi & Bobbit, 1978). Thus, these findings are relevant to deliberations about introducing or abolishing official bodies (e.g., Ofcom, Ofgen, or the Legal Services Ombudsman) that regulate legal, business or political decision-makers. The presence of such organisations, to which decisions must be justified, would facilitate decisions based on values and principles and not solely on consequences such as maximising profit.

Future research should also test the robustness of the findings across participants who vary in age, religion, ethnicity, and other important social variables (e.g., socio-economic status). The importance of this follow-up can be illustrated by considering the role of values and consequences, as described in Chapter 2. An important possibility is that values and consequences vary in their separability across individuals and cultures. For example, some religions impose strong negative consequences for actions that contradict religious beliefs and principles. Participants who follow these faiths may therefore use the religious principles at the same level as personal consequences, making it more difficult to detect differences in their use. Further research is needed to examine how this affects value-relevant behaviour, and whether such contexts attenuate the role of expected justification.

Given the aims of the current Thesis, the research in Chapter 4 focussed on the use of social values in co-value argumentation. It seems that there are important constraints on how values can be combined, which should be considered by all users of co-value argumentation techniques. However, an interesting issue raised by the results of Experiments 8, 9, and 10 is whether related similarity results can be revealed for other constructs that possess clear patterns of inter-relations. For example, people may receive messages claiming that an intervention in the workplace might 'increase job satisfaction by reducing anxiety' or claiming that the intervention will 'increase job satisfaction by reducing sadness'. Theories about emotion suggest weaker associations between contentment, happiness, and anxiety than between satisfaction and sadness (Watson & Tellegen, 1985; see also Tellegen, Watson, & Clark, 1999), which may cause the latter link to be more plausible and, hence, more persuasive. Such evidence would help to test the limits of relatedness effects in persuasive argumentation across multiple domains. This issue is important because it

would enable persuasion theorists to use more *a priori* theory to predict the necessary content of strong arguments, thereby addressing a large gap in current persuasion research.

Moreover, in addition to the types of arguments included in Chapter 4, it is possible to envisage arguments where values are negated (e.g., "encouraging people to be helpful does *not* lead to more wealth" or "encouraging people to *not* be helpful does lead to more wealth"). This negative-pairing possibility was not addressed in the current research. However, these alternative combinations hold interesting implications for future research, including the potential to investigate relative value importance using value-promotion/value-violation decisions.

In his influential discussion of values, Rokeach (1973) proposed the importance of assessing the impact of the whole value structure and not simply focussing on single values. I agree that a more complex integration of a variety of values is necessary to provide a reliable picture of how values influence behaviour. However, this admission does not mean that the examination of single values and their application to specific situations to investigate the processes that underlie this use of values is unnecessary or in some way too basic. Considering the application of the whole value system to behaviour in a specific situation would be impossible without first understanding the processes that underlie the application of single values (Chapter 3).

The research presented within this Thesis has provided a deeper insight into aspects of the social value literature that have been largely unaddressed by prior research. All of the research has provided evidence of the powerful impact of social values and has added to current understanding on the use of values and the processes that underlie this use. Given that "Values are not just words, [but] the causes that we

champion and the people we fight for" (Senator John Kerry, b. 1943), I hope that the current research will stimulate further investigation of social values, this crucially important part of human decision-making and behaviour that still remains on the fringe of social psychological research.

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