RELATIONSHIPS BETWEEN PERSONAL VALUES, AND DEPRESSED MOOD AND SUBJECTIVE WELLBEING

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ABSTRACT

The central objective of this thesis was to explore relationships between personal values, and depressed mood and subjective wellbeing, and to determine if the notion of values can be more useful in the fields of clinical and positive psychology. An initial literature review of values identified the potential importance of values in relation to mood and wellbeing, but also showed that more research was required to clearly establish such links. Two survey studies using Schwartz's model of values (Schwartz, 1992), and one longitudinal study investigating relational aspects of values, were conducted to explore these relationships. Study 1 was a New Zealand paper-based study and investigated links between the importance of, and satisfaction with, values and depressed mood and subjective wellbeing. Study 2 was a larger international internet-based study which sought to replicate important findings from Study 1 and investigate links between people's knowledge of their values and the extent to which they were living in alignment with values. Study 3 consisted of a sub-sample of participants from Study Two who completed a subset of Study 2 assessment measures six months later. This study explored how relational aspects of values (knowledge of values, living in alignment with values) related to changes in depressed mood and SWB over time.

Cumulatively the results from these studies re-orientate our thinking towards an increased utility for the notion of values in the areas of clinical and positive psychology. Regarding depressed mood, these studies found links between greater depressed mood and lesser importance of Self-Direction, Stimulation and Hedonism

value types. The importance of values as a whole was not associated with depressed mood; however being satisfied, knowing values, and living in alignment with values were associated with less depressed mood. Regarding subjective wellbeing, these studies found links between greater subjective wellbeing and greater importance of Self-Direction, Stimulation, Hedonism, and Benevolence value types. The importance of values as a whole was not associated with subjective wellbeing; however being satisfied, knowing values, and living in alignment with values were associated with greater subjective wellbeing. A causal relationship was found between living in alignment with values and latter subjective wellbeing, but not for knowledge of values and later subjective wellbeing. In addition, no major deviations in the coherence of values' systems between individuals with and without depressed mood, or for individuals with and without high subjective wellbeing, were found.

Strengths, implications, and limitations of the studies are noted for the fields of clinical and positive psychology, and suggestions for future research are made.

All sciences are now under the obligation to prepare the ground for the future task of the philosopher, which is to solve the problem of value, to determine the true hierarchy of values. ~ Friedrich Nietzsche

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LIST OF ABBREVIATIONS

ACT	Acceptance and Commitment Therapy
BA	Behavioural Activation
BDI	Beck Depression Inventory
BDI-II	Beck Depression Inventory - II
CES-DS	Centre for Epidemiological Studies, Depression Scale
CES-DS-4IH	Centre for Epidemiological Studies, Depression Scale, Four Item Happiness
CS-SSVS	Current Satisfaction, Short Schwartz Value Survey
DMG	Depressed Mood Group
HM	Happiness Measures
IPT	Interpersonal Psychotherapy
LOV	List Of Values
MDS	Multidimensional Scaling
MI	Motivational Interviewing
Non-DMG	Non-Depressed Mood Group
Non-SWBG	Non-Subjective Wellbeing Group
PVCS	Personal Values Card Sort
PVQ	Portrait Values Questionnaire
QOLT	Quality Of Life Therapy
RET	Rational-Emotive Therapy
RVS	Rokeach Values Survey
SDT	Self-Determination Theory
SHS	Subjective Happiness Scale
SOV	Study Of Values
SSVS	Short Schwartz Value Survey
SVS	Schwartz Value Survey
SWB	Subjective Wellbeing
SWBG	Subjective Wellbeing Group
SwLS	Satisfaction with Life Scale

CHAPTER 1: INTRODUCTION

1. 1 Introduction

Values are common to all people and are regularly endorsed because they are of foremost importance in people's lives. Discourse pertaining to the importance of values can be traced back to the early Greek philosophers. Socrates believed that the good life, rather than life itself, was to be chiefly valued (Rachels, 1993), and Aristotle promoted numerous values (Aristotle, trans. 1967). Values have been central in various historical commentaries and dialogues (e.g., poetry, plays, novels, scriptures), the most famous being the Ten Commandments which permeate western society (Smiley, 1985). More contemporary reference to values is also easily detectable in various popular media, such as politics, science, business, art, and movies (Davis, 2001; Hitlin, 2003).

Popular discourse aside, there is little contemporary psychological research on values, especially regarding theoretical explanations and practical applications. Given this omission, this thesis focuses on values in psychology by exploring relationships amongst personal values, and mood and wellbeing. In doing so, key aspects of personal values are explored, in particular, relationships between the types and coherence of values people endorse, and their depressed mood and subjective wellbeing. This thesis also explores people's relationships with values, such as the extent to which they view their values as important, know what their values are, live their life in alignment with their values, and are satisfied with their values.

This first chapter is presented in six main sections. First, the notion of values in psychology will be broadly reviewed, and conceptualisations and definitions of values outlined. Next, the main theory of values in this thesis is described, and issues surrounding the measurement of values are considered. Following this, aspects of the fields of clinical and positive psychology relevant to values, mood and wellbeing are summarised. This chapter concludes with an outline of the aims of this thesis, the research questions addressed, and a broad summary.

1.1.1 The importance of values.

The reason values are endorsed and easily detectable is because they are, *prima facie* at least, of major importance. As Ball-Rokeach, Rokeach and Grube state, "in a nutshell, values represent what is most important to us and form the basis of how we approach life…[they are] …the silent forces behind many of our actions and decisions" (1984, p. 15). Braithwaite and Law comment that values "are usually based on what genuinely matters most to us as people, and are things that are of intrinsic worth to us" (1985, p. 252). Indeed, people talk of and endorse values as cherished possessions (Leichtentritt & Rettig, 2001), as notions they are personally invested in, regard highly, seek to uphold and defend (Maio, Olson, Bernard, & Luke, 2003), and hold tenaciously (Morris, 1956). Values tell the world, and ourselves, who we are and what is important about us (Peterson, 2006), and "reflect an essential, inalienable aspect of what it means to be human" (Bain, Kashima, & Haslam, 2006, p. 355). People hold values as foundation blocks for living and of how they relate to

others, as they represent what is most important in life (Henderson, 2003), are pertinent to the very nature of being human (Harari, 1989), form the core of personal identity (Hitlin, 2003), function as standards that guide thought and action (Feather, 2002; Rohan, 2000; Schwartz & Bilsky, 1987), and provide justifications for what we do and how we feel (Kristiansen & Zanna, 1994).

Because values are important in facilitating the functioning of life, theorists use the ubiquity of values to argue for their significance at both individual and social levels. As Straker commented:

> Values are, in fact, powerful drivers of how we think and behave. They tell us what is good and bad, right and wrong. They tell us the shoulds and shouldn’ts, musts and can’ts of life. They also help us decide which is more and less important. (2008, p. 43)

Leichtentritt and Rettig (2001) argued that values play an important role in human behaviour by influencing perceptions, decisions and actions, and, as a result, impact on the welfare of individuals, family members, and the community. Thus, values provide ways of conceptualising life-guiding principles, or ‘ways to live’ (Morris, 1956), and are an important component in guiding our behaviour and attitudes, and in making sense of others. Hitlin and Piliavin (2004) suggested that values operate as guiding mechanisms, and Mandler (1993) maintained that valuing necessarily occurs as we encounter the world.

At the social level, relationships with others are bound and coordinated by the values individuals endorse (Spates, 1983). Knowing others' values aids in smooth and conventional relations by allowing a sense of predictability, which reduces group conflict (Tetlock, 1986). Indeed, out-groups with dissimilar prioritised values are regarded as less human (Schwartz & Struch, 1989) and experience out-group prejudice (Biernat, Vescio, Theno, & Crandall, 1996). Conversely, people who act in ways which support others' values obtain increased trust (Devos, Spini, & Schwartz, 2002; Sagiv & Schwartz, 1995). Values regularise social behaviour by providing general rules, negating the ongoing reinvention of standards and their justification (Marini, 2000). Values also provide standards to determine which beliefs, attitudes, and actions of others are worth challenging, protesting, and arguing about, or worth trying to influence or change (Rokeach, 1973).

At the individual level, values fulfil a number of roles. Values guide conduct and help direct life towards the attainment and accomplishment of personal goals (Deci & Ryan, 1985), as people are goal orientated by nature (Aristotle, trans. 1967). Dewey (1938) held that values take root in us and are the basis for our goals. Rokeach commented that:

> Values are multifaceted standards that guide conduct in a variety of ways. They lead us to take particular positions on social issues and they predispose us to favour one ideology over another. They are standards employed to evaluate and judge others and ourselves. (1973, p. 13)

Sanchez (2000) viewed values as critical to processes of self-regulation, maintenance and enhancement of self-esteem and decision making, and Hayes, Strosahl, and Wilson (1999) argued that following personal values provides a sense of consistency that structures experience, and to an extent, defines who a person is.

At the same time as values exert influence at both individual and social levels, the importance theorists place on values is also becoming more discernible in the public domain. For example, a 1990 survey by Public Addenda cited 'not learning values' as the most important problem facing youth, more so than drugs and violence (Peterson, 2006), and the Dalai Lama surmised, "the problem is that the majority have lost, or ignore, the deeper human values – compassion, a sense of responsibility. That is our big concern" – (Iyer/Dharamsala, 1997, p. 4). Havel remarked that "without commonly shared and widely entrenched values, neither the law, not democratic government, nor even the market economy will function properly" (1993, p. 8). Such public comments further allude to the importance of values.

1.1.2 The neglect of values.

Although values are important, very little is known about what values are, how they are useful, or how they fit within psychology. Research into values has been at the periphery of the psychological landscape in recent times, with theorists from several different domains of psychology endorsing this view. For example, Kasser, a self-determination theorist, commented that "unfortunately values remain a rather neglected topic in mainstream psychology, as far more energy has been devoted to

other issues of the self-concept, other types of beliefs, and other types of motivational dynamics" (2002, p. 124). Cohen and Cohen, social psychologists, commented that the area of values has "been generally neglected, and more work is needed" (1995, p. xii) and that "a review of the literature has shown that values have not been an area of much research interest…[with] …very few citations found on these issues" (1995, p. 2). Bergin, Payne and Richards, clinical psychologists, commented that "a large number of influential psychologists have chosen, for one reason or another, to exclude issues of purpose, meaning, and values from their theorizing about human behaviour" (1996, p. 317). Hitlin and Piliavin, values theorists, noted that "work expressly on values – both the nature of individual values systems and values' place in action – has been sparse since the mid 1960's" (2004, p. 359). Schuman, a sociological psychologist, commented that "we find almost no work on values in sociological social psychology" (1995, p. 69). Rohan, a values theorist, asserted that values have been "marginalized in psychology" (2000, p. 255). Lindeman and Verkasalo, values researchers, commented that "values deserve more research attention than they have received thus far" (2005, p. 170). Howard (1985) argued that values are inherent in all psychological research. Thus, amongst the main current theorists in psychology concerned with values, there is overwhelming agreement that the study of values has been neglected, that values are at the periphery, and that little is currently known.

Supporting this view that values have been neglected, there is unsurprisingly a lack of mention of 'value' or 'values' in popular psychology textbooks. Proctor and Williams (2006) surveyed 33 introductory psychology textbooks published between

2003 and 2005 in order to determine their most frequently cited concepts. A search of textbook glossaries found 428 terms in 50% or more of the 33 texts. These terms were designated ‘core concepts’ in psychology. The notion of ‘value’ or ‘values’ was not among these core concepts. Likewise, Rohan (2000) observed that there was no discussion of value theory in a sample of 10 introductory social psychology and personality textbooks published between 1990 and 2000. Findings such as these suggest that values are not recognised as important in the domain of psychology.

1.1.3 Why the concept of values has been neglected.

Various reasons have been offered explaining the current lack of focus on values in psychology. Rohan (2000) argued that values lack an adequate operational definition, and Hitlin and Piliavin (2004) contended that values have been too subjective to study and too difficult to measure adequately. Hechter (1993) attributed the limited research progress to values being unobservable because the processes that generate values are unknown. Schwartz (1992) viewed values as difficult to study because of their historical and cultural variability in content. De Bono attributed lack of focus on values to their confidential nature: “values are private and talking about values is like talking about sex” (2006, p. 86). More broadly though, the rise of behaviourism around the late 1960s and into the 1970s took the focus off values in psychology (Clawson & Vinson, 1978).

Compounding these challenges, theorists concur that there has been a lack of standardisation related to values across theoretical and empirical research. Many

researchers examine attitudes, beliefs, or opinions and categorise their work as studies of values (Kilby, 1993; Rohan, 2000; Schuman, 1995), or they "employ cursory understandings of values, labelling a broad array of social psychological phenomena as values" (Hitlin & Piliavin, 2004, p. 359). Several researchers have attributed the neglect of values to their conflation with other social psychological phenomena, such as attitudes, traits, norms, and needs (e.g., Bergin et al., 1996; Hechter, 1992; Kristiansen & Zanna, 1994; Peterson, 2006; Rohan, 2000). Moreover, different disciplines outside of psychology render dissimilar meanings when referring to values. As Hitlin and Piliavin noted, "when one reads about values across the disciplines of sociology, psychology, philosophy, and political science, the balkanized nature of the research is striking" (2004, pp. 359-360). Various disciplines, for example economics (Scitovsky, 1993) and sociology (Hitlin & Piliavin, 2004), have likewise reported difficulty engaging with the topic of values.

Although many of these criticisms are valid and have contributed to the neglect of values, they are by no means insurmountable. Although psychology has had difficulty engaging with the topic of values (Clawson & Vinson, 1978; Davis, 2001; Epstein, 1989; Nenon, 1997), recent advances in values' theory, measurement, and research methodology have started to take account of these criticisms (e.g., Hitlin & Piliavin, 2004; Rohan, 2000; Schwartz, 2006) leading to a recent increase of discussion and research into values.

1.1.4 An increase of interest in values.

The concept of values became a focus of research interest for scholars in the early 1930s (Davis, 2001; Rohan, 2000), culminating in a "heyday in the 1950s and 1960s" (Hitlin & Piliavin, 2004, p. 360). By the 1960's, values were an explicit focus of nearly all the social science disciplines (Barth, 1993), including anthropology, economics, political science, sociology, and psychology (Adler, 1956; Hull, 1943; Kluckhohn, 1951; Sherif, 1936; Allport & Vernon, 1931). The growing influence of the anti-cognitivist movement led to very little research on values being conducted between the mid 1960s and late 1980s. Contemporary interest regarding the place of values in psychology is increasing, however, and has accelerated in the past two decades with "mainstream psychology beginning to show awareness of this formally taboo area" (Bergin at al., 1996, p. 297). The increase of interest is associated with the realisation that a value-free or value-neutral approach to psychological research (Howard, 1985) and psychotherapy (Bergin, 1980; Beutler, 1979) is untenable, as both are value-laden enterprises. As Bergin et al. noted:

> Beginning in the late 1940's and continuing into the 1960's and 1970's, the belief that values could be kept out of psychological theory, research, and practice was challenged theoretically and empirically. By the late 1970's to early 1980's, it was widely agreed that it was impossible to keep values completely out of psychological work. (1996, p. 298)

Thus, the 1980s saw a renewed interest in the notion of values in psychological research. Many theorists (e.g., Feather, 1984; Hitlin & Piliavin, 2004;

Rohan, 2000) attributed this interest to either Bergin's seminal article (Bergin, 1980) and Ellis's reply (Ellis, 1980), which sparked much debate and documented the growing interest in values issues among helping professionals (Bergin at al., 1996), or to Rokeach's seminal book *The Nature of Human Values* (1973). Rokeach's book in particular "caused a surge of empirical studies which investigated the role of human values in many branches of psychology" (Debats & Bartelds, 1996, p. 48), particularly in the domains of social and cross-cultural psychology. Rokeach even suggested that "the value concept…[is] able to unify the apparently diverse interests of all the sciences concerned with human behaviour" (1973, p. 3) and should thus be central. This debate between Bergin and Elis, and Rokeach's book are historically definitive in setting a point of demarcation for the recent infusion of values into the domain of psychology.

Interest in values has sporadically emerged recently in various psychological sub-disciplines. For example, in social psychology: moral reasoning (Schwartz, 1990; Schwartz & Bardi, 2000; Weber, 1993); and religious and spiritual values (Duriez, Luyten, Snauwaert, & Hutsebaut, 2002; Roccas, Sagiv, Schwartz, & Knafo, 2002; Schwartz & Huismans, 1995). In clinical and counselling psychology: therapists' values (Homes, 1996; Kelly & Strupp, 1992; Strupp, 1980); the transmission of client values towards therapist values (Arizmend, Beutler, Shanfield, Crago, & Hagaman, 1985; Beutler & Bergan, 1991; Kessell & McBrearty, 1967; Patterson, 1958; Tjeltveit, 1986); values-based interventions (Ernst, 2002; Greenstein, 1976; Wagner & Sanchez, 2002); and process and outcome of psychotherapy (Bergin, 1985; Beutler, 1981; Herr & Niles, 1988; Kelly, 1990). In organisational psychology:

workplace values (Crosby, Bitner, & Gill, 1990; Dose, 1999; Hofstede, 2001; Judge & Bretz, 1992); and consumer behaviour (Allen, 2001); and personality assessment (Heaven, 1993). In cross-cultural psychology: the universality of values (Cohen & Cohen, 1995; Schwartz, 1992, 1994, 2005b); and cultural and national values (Abramson & Inglehart, 1995; Fischer, 2006; Halman & de Moor, 1994; Inglehart & Baker, 2000; Schwartz, 2007; Schwartz & Sagiv, 1995; Smith & Schwartz, 1997; Spini, 2003). In human development: the transmission of values within the family (Hitlin & Piliavin, 2004); and the intergenerational transmission of values (Schwartz & Bilsky, 1990). Given the recency of focus on values, these specialised areas have not been comprehensively researched; likewise research in other psychological sub-disciplines is almost non-existent (e.g., in positive psychology).

In summary, research on values has been neglected for a number of reasons, yet values are nonetheless important. In an empirical sense, research on values is now increasing as there is still much to learn about values and their utility, and indeed, values researchers now posit values as an important core concept for psychology.

1.1.5 Conceptualisations and definitions of values in psychology.

Although there have been many pioneering values theories and theorists (e.g., Allport 1961; Feather, 1995; Inglehart, 1997; Joas, 2000; Kluckhohn, 1951; Kohn, 1969; Morris, 1956; White, 1951), two theorists have dominated the psychological literature: Rokeach (1973) and Schwartz (1992, 1994a, 2006). This section contains a

brief historical overview of the main conceptions and definitions of values within the psychological literature, including Rokeach's and Schwartz's conceptions. Rokeach's conception is outlined as it represents the most significant early advance in values research, and Schwartz's conception is briefly sketched here as it represents the most contemporary and popular theory, and is then outlined in full in section 1.2.

Although Rokeach and Schwartz have largely influenced the recent conceptual understanding of values within psychology, definitions of values abound within the literature (Braithwaite & Scott, 1991; Kilby, 1993). These notions have both historical and contemporary significance, and contain common conceptual elements of values as beliefs, guiding principles, priorities, desirable conceptions, preferences, preferred goals, and motives. Following this historical exposition, constructs similar to values, noticeably attitudes, traits, norms and needs are briefly discussed.

1.1.5.1 Early conceptions.

Although the roots of the term 'value' are known (deriving from the Latin word *valere*, meaning to be strong, prevail, or to be of worth: Meinert, 1980), there have been many variations in the literature, making the term hard to define. For example, Timms (1983) outlined 180 different definitions for the term 'value' in reviewing social science publications. In psychology, several early approaches to conceptions and definitions of values were vague and confusing (Prillentensky, 1997; Smith, 1991). The most influential early definition of values was by Kluckhohn, who

defined a value as "a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the *desirable*, which influences the selection from available modes, means, and ends of action" (1951, p. 395). This functionalist definition, which focused on the potential for action, was ingrained in the literature until the early 1970s (Rohan, 2000). Around the same time as Kluckhohn presented his definition, Allport, Vernon and Lindzey (1951) conceived of values as having six basic interests and motives (social, theoretic, religious, economic, political, and aesthetic), with Allport later defining a value as "a belief upon which a man acts by preference" (1961, p. 454). Lewin asserted that:

> Values influence behavior but have not the character of a goal (i.e., of a force field). For example, the individual does not try to 'reach' the value of fairness, but fairness is 'guiding' his behavior. It is probably correct to say that values determine which types of activity have a positive and which have a negative valance for an individual in a given situation. In other words, values are not force fields but they 'induce' force fields. That means values are constructs that have the same psychological dimensions as *power fields*. (1952, p. 41)

Thus, Lewin took values to be guides for behaviour, rather than attainable goals. Morris (1956) regarded values as 'ways to live', and described thirteen ideal ways for living, such as 'cultivating independence' and 'enjoying life through group participation'. Heider defined values as "meaning the property of an entity (*x* has

values) or as meaning a class of entities (*x* is a value) with the connotation of being objectively positive in some way" (1958, p. 223). Scott (1959) envisaged values as preferred goals that one regards as (a) inherently good – being ultimate goals; (b) absolutely good – holding in all circumstances; and (c) universally good – applying to all people. Williams (1968) maintained that values are static constructs which involve a focus on criteria or standards of preference, yet are also socially approved verbal representations of basic motivations. Many of these early conceptions provided useful insights into the construct of values, although several were also criticised on methodological grounds, such as for the wording of values questions (Kilby, 1993) or for lacking comprehensiveness (Handy, 1970).

1.1.5.2 Milton Rokeach.

In 1973 Rokeach published *The Nature of Human Values*, in which he defined a value as an "enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973, p. 5). In general terms, a value was a stable belief that some goals were to be preferred to others. The idea that values were related to preferences, as opposed to moral imperatives as previously conceived by sociologists (e.g., Adler, 1956) and philosophers (e.g., Hartman, 1967), was central to Rokeach's work. Whereas Kluckhohn (1951) and others emphasised action, Rokeach saw values as giving meaning to action.

Rokeach also differentiated between types of values, distinguishing between *terminal values* and *instrumental values*. Terminal values consist of 'prioritised end states of existence', whereas instrumental values consist of 'prioritised modes of behaviour' essential to the realisation of various end states of existence. Terminal values represent goals to be achieved during a lifetime, whereas instrumental values consist of the means of achieving terminal values. Both terminal values and instrumental values are either socially or person centred (Leichtentritt & Rettig, 2001). For example, 'justice' is a socially centred terminal value, whereas 'wisdom' is a personally centred terminal value. 'Love' is a socially centred instrumental value, whereas 'honesty' is a personally centred instrumental value. Together, an individual's terminal and instrumental values form a value system, which was conceptualised as:

> An organization or structure of deeply held beliefs, limited in number, very close to the core of self-identity, that provides a mechanism for assigning relative priority and importance to the individual values. The system works to resolve conflicts between competing, activated values and to motivate goal-directed behavior. In addition, it serves an ego-defensive function and can incorporate and rationalize undesirable behavior into values seen as 'more important'. (Rokeach, 1973, p. 5)

According to Rokeach's value system, everyone endorses the same values, but to different degrees. Particular values are important when they are preferred to

opposite or converse values. In this way, the significance of a value is determined by its relative importance within an individual's value system. Guiding values organise attitudes, emotions, and behaviours, and endure across time and situations. Someone with a particular value is thus expected to consistently express behaviour relevant to that value in a variety of situations over time. In short, Rokeach's theory identified a core set of relatively stable fundamental values (instrumental and terminal values), provided both a model of value systems and the means to research it (i.e., the Rokeach Value Survey – see section 1.3.1.2), and examined relationships between dominant values, attitudes and behaviours, for both individuals and societies.

1.1.5.3 Shalom Schwartz.

In 1987 Schwartz and Bilsky outlined five features that were common and implicit in definitions of values in the literature up until that time. According to their analysis, values were:

> (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance. (p. 551)

In other words, values were conceptualised as stable motivational constructs that represent broad goals which apply across context and time. Using this conceptual approach to values they developed a tentative theory of the universal content and

structure of human values (Schwartz & Bilsky, 1990), which Schwartz (1992, 1994a, 2006) further refined and tested empirically.

Schwartz defined values as "desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity" (1994a, p. 21). He later adapted his definition of a value to "conceptions of the desirable that guide the way social actors (e.g., organisational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations" (1999, p. 24). Taking into account the five common features above, values were viewed as a set of general conceptions about desirable ways to live that people use to guide their actions (Bain, 2005).

Although Schwartz agreed with much of Rokeach's approach to values, he also believed that Rokeach's approach did not fully address the underlying structure of value systems, especially the relationships individual values have with each other (Schwartz, 1992). He also thought Rokeach's paradigm needed further refinement given that the number and types of values in Rokeach's model were largely based on intuition and North American research samples (Schwartz, 1992). Although Schwartz had found support for Rokeach's terminal/instrumental distinction in his earlier work (1987), his subsequent work (1992) did not support such a distinction as a basis on which people organise their values, and thus he eliminated it. These concerns prompted Schwartz to develop his own model.

Nonetheless, both Rokeach and Schwartz share a functional approach to values in that values address fundamental and important individual and social needs. The two theorists differ in which needs values primarily address and in how they

address them. For Rokeach, values maintain and enhance our conception of ourselves and our self-esteem, and are important because of shared socialisation and conventions (Bain et al., 2006; Rokeach, 1973). For Schwartz, values address the needs of individuals as biological organisms, aid the coordination of social interaction, and benefit group survival (Schwartz, 1992). Both functionalist approaches to values imply that values are important because they serve useful individual and social functions.

1.1.5.4 Other definitions and conceptions.

In addition to the definitions proposed by Rokeach and Schwartz, Super defined a value as "an objective, either a psychological state, a relationship, or material condition, that one seeks to attain" (1980, p. 130). Hofstede defined values as involving "a broad tendency to prefer certain states of affairs over others" (1980, p. 18). Epstein (1989) contended that there are two different value systems, one conscious (reflective and reportable) and one unconscious. Hill described values as "the priorities individuals and societies attach to certain beliefs, experiences, and objects, in deciding how they shall live and what they shall treasure" (1994, p.7). Feather defined values as "beliefs about desirable or undesirable ways of behaving or about the desirability or otherwise of general goals" (1996, p. 222). Maio and Olson defined values as "simply truisms, endorsed but lacking argumentative support" (1998, p. 379), and Maio et al. (2003) considered that values are derived in part from, but also influence, ideologies. Carver and Scheier (1982) conceived of values as

higher order goals which involve longer time spans, have more extensive networks of meaningful associations and interpretations, and involve more distal or abstract goals. Likewise, Maes and Gebhardt (2000) conceived of values as higher order goals. Marini described values as “evaluative beliefs that synthesize affective and cognitive elements to orientate people to the world in which they live” (2000, p. 2828). Henderson defined values as “the priorities and preferences of individuals and groups, which reflect what is important to them” (2003, p. 11). He further conceptualised values as abstract concepts and ideas that are intangible, and represent lifestyle preferences and priorities, specific ideas about what is held to be important or meaningful, and are “strictly concepts that we use in order to evaluate the relevance, appropriateness or effectiveness of our behaviours” (2003, p. 40). Bain et al. (2006) argued that values are cognitive representations that act as conduits between social influences and personal preferences. Nevertheless, these more recent definitions or conceptions have not gained widespread support to date as the literature has largely used Rokeach’s and Schwartz’s notions.

This historical synopsis highlights the pervasive indeterminism in definition and conceptualisation of values across psychological literature. Early approaches conceived of values as guides and motives, with more recent approaches envisaging values as cognitive preferences and desirable conceptions. However, as Schwartz has commented, “most social scientists view values as deeply rooted, abstract motivations that guide, justify or explain attitudes, norms, opinions and actions” (2003, p. 260), and recently Schwartz has further elaborated on the five common features of values:

- Values are beliefs. But they are beliefs tied inextricably to emotion, not objective, cold ideas
- Values are a motivational construct. They refer to the desirable goals people strive to attain
- Values transcend specific actions and situations. They are abstract goals. The abstract nature of values distinguishes them from concepts like norms and attitudes, which usually refer to specific actions, objects, or situations
- Values guide the selection or evaluation of actions, policies, people, and events. That is, values serve as standards or criteria
- Values are ordered by importance relative to one another. People's values form an ordered system of value priorities that characterize them as individuals. This hierarchical feature of values also distinguishes them from norms and attitudes. (2006, p. 249.)

In alignment with Schwartz, this thesis conceives of values as beliefs held by individuals and shared by groups about desirable ends (i.e., larger ideologies about the world and how it should be); they transcend specific situations; they guide how we select actions and evaluate others and ourselves; and they are ordered by their relative importance.

Looking past conceptions and definitions, theorists have also focused on values' place within the psychological landscape. For example, the evolutionary psychologist Wright (1994) viewed values as nearly universal, as programmed into us, similar to the ability and urge to speak. Moral psychologists have pointed out that values are often moral, religious, or political in nature (Fromm, 1949; Prillentensky, 1997), and Rokeach (1973) took values to be related to life-orientating principles such as ethics or morals. There is in addition a substantial literature on the link between values and actions (for an overview see Feather, 1992). Nonetheless, this indeterminism in definition as the literature developed has contributed to values being confused and conflated with various similar constructs.

1.1.6 Values and similar constructs.

Related to the different conceptions and definitions in the literature, there have been numerous distinct constructs blended or confounded with values. As Williams mentioned, "the term 'values' has been used variously to refer to interests, pleasures, likes, preferences, duties, moral obligations, desires, wants, goals, needs, aversion and attractions, and many other kinds of elective orientations" (1979, p.16). Likewise, Peterson concurs regarding the sprawling use of the term: "most commentators observe that the term *value* has been used promiscuously to refer to all sorts of entities: Interests, pleasures, likes, preferences, duties, moral obligations, desires, wants, goals, needs, and orientations" (2006, p. 173). The more central concepts in the literature with which values have been confounded include attitudes

and traits, and to a lesser extent, norms and needs, and these will now be briefly reviewed.

From a conceptual point of view, values differ from attitudes in that values are more abstract (Williams, 1979), focus on ideals (Hitlin & Piliavin, 2004), are inherently positive (Rokeach, 1968, 1973), are subject to hierarchical ordering by importance (Schwartz, 1992, 1994a), are more durable as they show marked differences in changeableness over the life course (Bardi, Lee, Towfigh, & Soutar, 2009; Konty & Dunham, 1997), are more central to issues of personhood (Erickson, 1995; Hitlin, 2003; Smith 1991), and are less directly implicated in behaviour (Bardi & Schwartz, 2003; Feather, 1992). Attitudes, on the other hand, are more specific to concrete situations and objects (Eagly & Chaiken, 1993), more numerous (Rokeach, 1973), do not serve as standards (Beutler, 1972), are less central to personality and motivation (Maio & Olson, 1995), and attitudinal evaluations can be either favourable or unfavourable (Braithwaite & Scott, 1991), or "carry both positive and negative valences" (Hitlin & Piliavin, 2004, p. 363).

In addition, some theorists, rather than differentiating values from attitudes, bind the two concepts together, or see values and attitudes as interrelated. It has been held, for example, that values are a special kind of attitude object (Bem, 1970), that value expressions are a function of attitudes (Katz, 1960), that attitudes are expressions of our values (Henderson, 2003), that values are used as justifications for attitudes (Kristiansen & Zanna, 1994), that values are the foundations upon which attitudes are formed (Hog & Vaughan, 1995), and that attitudes moderate the relations between values and behaviours (Maio & Olson, 1995). The general

consensus is that values, compared to attitudes, are more abstract, inherently positive, less specifically evaluative, less numerous, not applied to concrete social objects, and hold a higher place in an individual's internal evaluative hierarchy.

Traits are conceptualised as fixed aspects of personality (Hog & Vaughan, 1995), and trait-based behaviour is often confused with value-based behaviour (Roccas et al., 2002), as values are inherently linked with personality, motivation, and behaviour (Lindeman & Verkasalo, 2005; Rohan, 2000). Epstein (1989) provided the example that one might have a disposition towards being aggressive (a trait), but not highly value aggression. Roccas et al. (2002) advocated that values-based behaviour suggested more cognitive control over one's actions, and that traits are enduring dispositions, whereas values are enduring goals. Traits can be positive or negative, whereas values are inherently positive, and values, unlike traits, serve as standards for evaluating behaviour (Schwartz, 1992). Rokeach (1973) also thought that viewing people in regards to their values, rather than their traits, was more advantageous for the possibility of personal change.

Values differ from norms in that norms are situation specific, whereas values are transsituational and ordered by hierarchical significance (Schwartz, 1992). Values are commonly measured at the level of the individual, whereas norms are measured at the level of the group (Marini, 2000). Norms capture an 'ought sense', whereas values capture ideals. For example, people acting in accordance with values do not feel pushed as they do when acting under normative pressure (for a full comparison between values and norms, see Marini, 2000).

Needs connote a biological influence on behaviour, whereas values capture a feature of individual and social life. Some theorists take values to be partly rooted in biology, in that both biological and cultural mechanisms explain the maintenance of values (e.g., Cavalli-Sforza, 1993). Others differ, such as Hitlin and Piliavin, who have commented that "values serve as socially acceptable, culturally defined ways of articulating needs" (2004, p. 361).

Thus, as the values literature has developed, values have been confused or conflated with numerous constructs, most noticeably attitudes, but also traits, norms and needs. However, recent conceptualisation and research into values, along with Schwartz's five common features (2006), is beginning to lessen this confusion.

1.2 Shalom Schwartz's theory of the structure of human values

Building on Rokeach's (1973) seminal work, and others (Adler, 1956; Hull, 1943; Kluckhohn, 1951; Sherif, 1936; Allport & Vernon, 1931), Schwartz's value theory (1992, 1994a, 2004, 2006) represented a major theoretical advance in our understanding of values and value systems. Schwartz began with a vision of what was universally required for individuals and groups to survive and thrive (see section 1.1.5.3), pointing specifically to the (a) biologically based needs of individuals; (b) requirements for social coordination and interaction; and (c) institutional demands concerning group survival and welfare. Schwartz then searched for an underlying universality of the content and structure of values across cultures (1992, 1994a). Others had previously attempted the grand goal of identifying universally held

values: Hofstede (1980); Kluckhohn and Strodtbeck (1961); Parsons and Shils (1951); and Rokeach (1973). The philosophers Hartman (1967), and more recently Bok (1995), have also attempted to bring the universality of values from philosophy into the realm of science. However, these attempts have not gained popularity in the literature to date.

Defining values as "desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity" (Schwartz, 1994a, p. 21), and from the basis of his three universal requirements to survive and thrive, Schwartz described three levels of values: individual values, value types, and value dimensions. The lowest, most specific level describes individual values (e.g., 'protecting the environment', 'obedience', 'ambition'), which lead to the promotion of broader motivational values he termed 'value types'. Value types, the middle level, classify many individual values into 10 motivationally distinct, broad and basic values. The highest level, value dimensions, consists of two higher order bi-polar value dimensions along which the 10 value types vary. While values can be studied at any of these levels, most research has focused on value types.

In the following sections Schwartz's model is outlined, including the 10 value types and two higher order bi-polar value dimensions. Example findings from research utilising Schwartz's model are presented.

1.2.1 The 10 value types.

Schwartz postulated 10 value types, each defined in terms of its motivational goal, which were theoretically derived from the universal requirements of human existence. As Schwartz commented:

> The 10 basic values are intended to include all the core values recognized in cultures around the world. These 10 values cover the distinct content categories found in earlier value theories, in value questionnaires from different cultures, and in religious and philosophical discussions of values. It is possible to classify virtually all the items found in lists of specific values from different cultures, into one of these 10 motivationally distinct basic values. (2006, p. 1)

The 10 value types are Achievement, Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Conformity, Tradition, Security, and Power, and are further described in Table 1.

Table 1
Schwartz's 10 Value Types

- Achievement. The defining goal of Achievement is personal success through demonstrating competence according to social standards. Competent performance that generates resources is necessary for individuals to survive, and for groups and institutions to reach their objectives.
- Hedonism. The defining goal of Hedonism is pleasure and sensuous gratification for oneself. Hedonism values derive from organismic needs and the pleasure associated with satisfying them.
- Stimulation. The defining goal of Stimulation is excitement, novelty, and challenge in life. Stimulation values derive from the organismic need for variety and arousal in order to maintain an optimal, positive, rather than threatening, level of activation.
- Self-Direction. The defining goal of Self-Direction is independent thought, choice of actions, creativity, and exploration. Self-Direction values derive from organismic needs for control and mastery, and interactional requirements of autonomy and independence.
- Universalism. The defining goal of Universalism is understanding, appreciation, tolerance, and protection for the welfare of all people and nature. Universalism values derive from survival needs of individuals and groups.
- Benevolence. The defining goal of Benevolence is preservation and enhancement of the welfare of people with whom one is in frequent personal

contact. Benevolence values derive from the basic requirement for smooth group functioning and from the organismic need for affiliation.

- Conformity. The defining goal of Conformity is restraint of actions, inclinations, and impulses likely to upset or harm others, or violate social expectations or norms. Conformity values derive from the requirement that individuals inhibit inclinations that might disrupt smooth interaction and group functioning.
- Tradition. The defining goal of Tradition is respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide to the self. Groups everywhere develop practices, symbols, ideas, and beliefs that represent their shared experience and fate, which eventually become sanctioned as valued group customs and traditions and are passed on.
- Security. The defining goal of Security is safety, harmony, and stability of society, of relationships, and of oneself. Security values derive from basic individual and group requirements.
- Power. The defining goal of Power is social status and prestige, and control or dominance over people and resources. Power values derive from a certain degree of status differentiation that is required for the functioning of social institutions and emphasise the attainment or preservation of a dominant position within the more general social system.

Note. Adapted and summarised from Schwartz (1992).

In the literature, this middle level of Schwartz's model is interchangeably referred to as value types, value domains, value constructs, basic values, and motivational values. The most common term 'value types' is used in this thesis to avoid confusion.

1.2.2 Schwartz's model.

According to Schwartz's value theory (1992, 1994a, 2004, 2006), the content of a value consists of the type of goal, or motivational concern, it expresses. For example, the value type Stimulation is underpinned by specific values such as 'an exciting life', 'being daring' and 'a varied life'. The value type Security is underpinned by specific values such as 'safety of loved ones' and 'stability of society'. The model further specifies structural aspects of values, namely the dynamics of conflict and congruence among the 10 value types, as the structure derives from conflicts people experience when they act on their values. In particular, the 10 value types are structured in a circle where adjacent domains are most compatible (i.e., adjacent values share motivational emphasis) and opposite domains are in conflict (i.e., do not share motivational emphasis). Thus, each of the 10 value types is considered to have either a complementary or oppositional relationship with the other value types, depending on the degree to which they share motivational emphasis. This arrangement can be seen in Schwartz's circumplex model, which is shown in Figure 1.

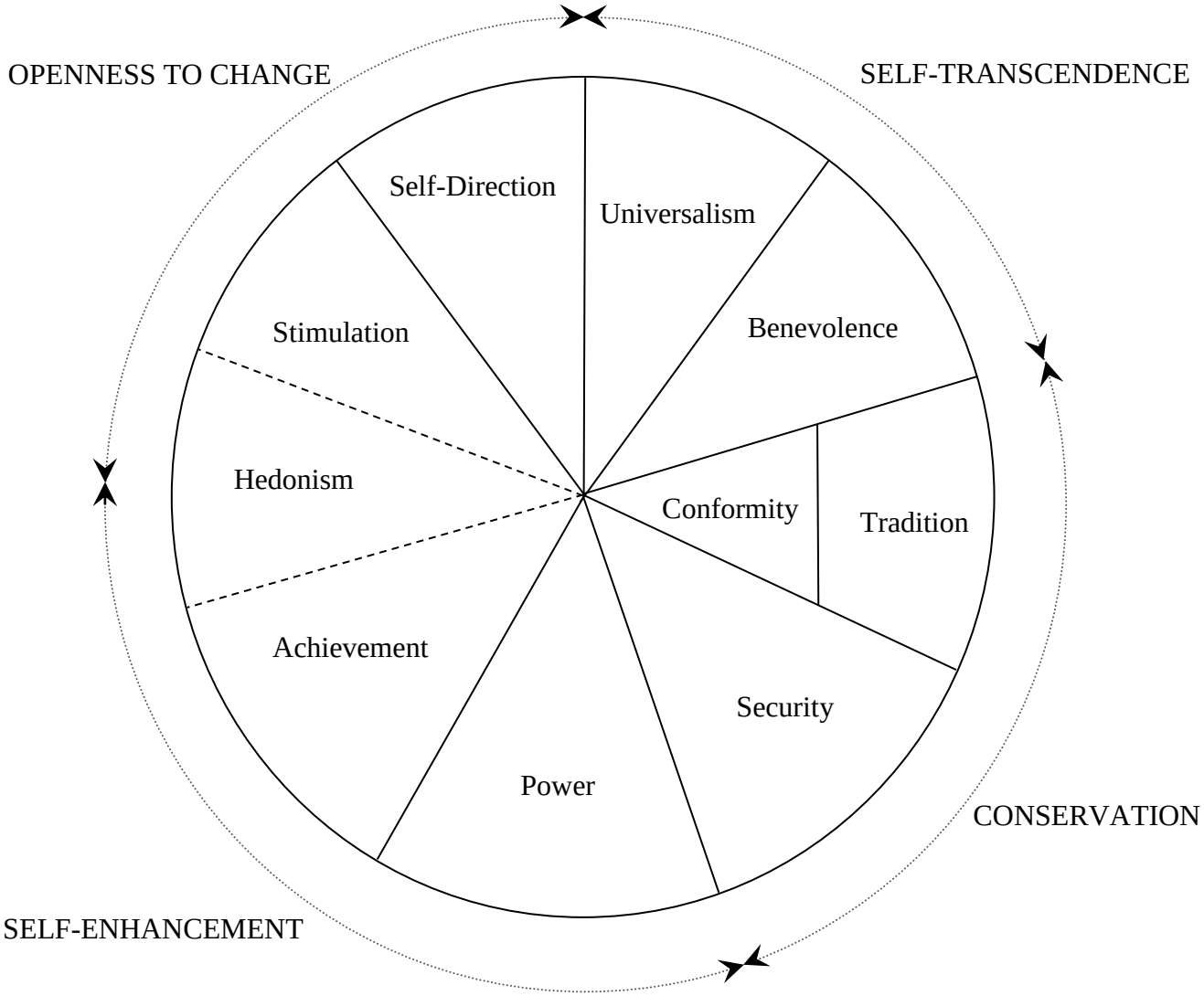


Figure 1. Shalom Schwartz's theoretical model of relations among 10 value types.

Simply, the closer any two values are around the circle, the more similar their underlying motivations; the more distant any two values are, the more antagonistic their motivations. For example, Power and Achievement are relatively complementary as both are self-enhancing, emphasising social superiority and

esteem. Achievement and Hedonism are also relatively complementary both focusing on self-centred satisfaction.

In contrast, Schwartz's model also highlights the difficulty in concurrently following values which are in conflict (i.e., in positional opposition). For example, in some situations it may be difficult to pursue Achievement values, such as obtaining personal success, whilst at the same time adhering to Universalism or Benevolence values, such as enhancing or protecting the welfare of others. As another example, in some situations it may be difficult to pursue Stimulation values, such as pursuing an exciting and varied life, whilst at the same time adhering to Conformity or Tradition values, such as being obedient or adhering to moderation.

Schwartz's model does not postulate that any values, such as Conformity or Tradition, are good or bad *per se*, just that values such as these may not be as important as Self-Direction or Hedonism for an individual who highly values Stimulation. This motivational structure of relations among values, with the order of associations of the 10 value types following a reasonably predictable pattern, makes it possible to study how values' systems, rather than solely individual values, relate to other variables of interest.

In addition to relations between the 10 value types, oppositions between the value types are seen as a function of two higher order bi-polar orthogonal dimensions along which the 10 value types vary. These Schwartz labelled Openness-to-Change vs. Conservation, and Self-Enhancement vs. Self-Transcendence. With the Openness-to-Change vs. Conservation dimension, Openness-to-Change (Self-Direction, Stimulation, Hedonism) emphasises independent thought, action, the pursuit of new

ideas and experience, and welcomes change. Conservation (Conformity, Security, Tradition), on the other hand, emphasises favouring self-restraint, tradition, maintaining the status quo and avoiding threat. With the Self-Enhancement vs. Self-Transcendence dimension, the Self-Enhancement (Achievement, Power, Hedonism) construct focuses on personal success, achievement, power, the pursuit of personal interests, and dominance over others. Self-Transcendence (Benevolence, Universalism), on the other hand, emphasises acceptance of, and concern for, the welfare and interests of others. These two continua are also shown in Figure 1 in that Openness-to-Change is in opposition to Conservation, and Self-Enhancement is in opposition to Self-Transcendence.

These two higher order bi-polar dimensions represent two primary human problems (or two individual or social needs). With Openness-to-Change vs. Conservation, the conflict is between following intellectual and emotional interests on the one hand (Openness-to-Change), and preserving the status quo and capitalising on the certainty that conforming to norms provides on the other (Conservation). With Self-Enhancement vs. Self-Transcendence, the conflict is between concern for individual interests and personal outcomes on the one hand (Self-Enhancement), and concern for the welfare of others on the other (Self-Transcendence).

Similar dimensions to these two higher order bi-polar dimensions have previously been postulated by others; for example, Rokeach's (1973) personal-social dimension, Eysenck's (1954) liberalism-conservatism dimension, Kohn and Schooler's (1983) self-direction vs. conformity dimension, Baker's (2005) traditional vs. secular dimension, and Fromm's (1976) humanistic vs. authoritarian conscience

typology. Schwartz (1992, 1994b) compared his dimensions to those articulated by others and found substantial similarity. Indeed, the individual vs. social continuum (i.e., Self-Enhancement vs. Self-Transcendence), however termed, has commonly been used in values research, especially social values research (Markus & Kitayama, 1991; Triandis, 1995), and is one of the most common forms of demarcation (for a review, see Hui, 1988).

Schwartz's model, however, is not completely symmetrical. Firstly, Hedonism relates to both higher order bi-polar dimensions (or human problems), relating mutually to Openness-to-Change and Self-Enhancement. Hedonism values derive from organismic needs and the pleasure associated with satisfying them, and sensuous gratification for oneself is important for both promoting Openness-to-Change and for pursuing Self-Enhancement. Secondly, the values of Conformity and Tradition share a very similar broad motivational goal and are located in a single wedge (see Figure 1), with Conformity more toward the centre and Tradition toward the periphery. This positioning signifies that Tradition values conflict more strongly with the opposing values of Hedonism, and to a lesser extent Stimulation and Achievement, than Conformity values do. In this regard, Schwartz commented that:

> Tradition and Conformity values are close motivationally because they share the goal of subordinating the self in favour of socially imposed expectations. They differ primarily in the objects to which one subordinates the self. Conformity entails subordination to persons with whom one is in frequent interaction – parents, teachers or bosses.

> Tradition entails subordination to more abstract objects – religious and cultural customs and ideas. (2006, p.1)

In summary, the important aspects of Schwartz's value theory are that values address individual and social needs, which are organised in three levels: individual values, value types, and value dimensions. People may differ in the importance they attribute to each of the 10 value types; however their values are generally organised by a similar structure of motivational oppositions and compatibilities. This motivational structure of relations among values makes it possible to study how values' systems, rather than individual values, relate to other variables because the order of associations follows a relatively predictable pattern.

1.2.3 The importance of Schwartz's model.

Schwartz's model rose to prominence and is important for three main reasons: it expanded on past models; it was empirically verifiable; and it gained cross-cultural support. Firstly, Schwartz drew on the theoretical foundations of Rokeach and others (e.g., Allport 1961; Feather, 1995; Kluckhohn, 1951; Kohn, 1969; Morris, 1956; White, 1951) as the basis for the development of his model (Schwartz, 1992, 1994a). In this way he expanded on past models in developing and refining his values' theory. Secondly, Schwartz was the first to gain widespread empirical support for his systematic theory regarding the organisation of an individual's value system (Hitlin & Piliavin, 2004; Rohan, 2000). That research is reviewed in more detail in section

1.2.4. It was Schwartz's focus on structure that allowed the study of both individual values and entire value systems. In addition, he provided a tool (the Schwartz Value Survey, see section 2.4.3.1) for others to test and research his model, and as Peterson noted, "a psychologist becomes important not just by having good ideas but by providing concrete methods that allow others to investigate these ideas" (2006, p. 179). Lastly, Schwartz gained empirical support for his model across many populations and cultures, reporting cross-cultural empirical support from approximately 70 cultures (Schwartz et al., 2001), with the Schwartz Value Survey being translated into 47 languages (Schwartz & Rubel, 2005). Schwartz commented that his model is "a reasonable approximation of the structure of relationships among the 10 value types in the vast majority of samples" (1994a, p. 35) and that "95% of samples from 63 nations support the distinctiveness of the 10 values and the prototypical circular structure of relations among them" (Schwartz et al., 2001, p. 523). This empirical support gave his model credibility, further increasing its prominence.

Among values researchers, Schwartz currently has the most active research program, with his theory and its associated measurement tools widely supported and used by other values researchers. Currently no other values' theory has such theoretical or empirical foundation as Schwartz's model. For these reasons Schwartz's value theory is utilised in this thesis.

1.2.4 Research on Schwartz's model.

Since its inception, Schwartz value theory has generated much research. As Sagiv and Schwartz comment, “the theory has been tested in cross-cultural research in more than 200 samples from over 60 countries” (2000, p. 179). Using the Schwartz Value Survey (described in section 2.4.3.1.1), and multi-dimensional scaling (Smallest Space Analysis: Davison, 1983) to assess and confirm the organisation of the 10 value types (Schwartz, 1992; Schwartz & Bilsky, 1990), differences in values profiles and priorities have been found to be associated with age, sex, country, educational level and a host of other variables. These findings are not surprising given that aspects such as age, sex, country and educational level largely determine the life circumstances to which people are exposed; their socialisation and learning experiences, the social roles they play, the expectations and sanctions they encounter, and the abilities they develop (Schwartz, 1994a). Thus, differences in background characteristics represent differences in life circumstances, which in turn influence values and value priorities. This is likely a reciprocal influence; life circumstances impact on values, and values-based choices impact on life circumstances (Schwartz, 1994a).

The brief synopsis that follows focuses on general and central research findings from Schwartz’s model, as well as research on common demographic variables (age, sex, country, educational level) and relational variables relevant to this thesis (importance of values, knowledge of values, living in alignment with values, and satisfaction with values).

1.2.4.1 General research findings.

Schwartz's model has received strong and widespread support, having been assessed using teacher, student, and general population samples (Bardi et al., 2009; Schwartz, 1994a; Schwartz, 2005a; Schwartz & Bardi, 2001; Spini, 2003; Struch, Schwartz, & Van der Kloot, 2002). His model has been researched mostly at the middle value type level (Rohan, 2000), but also at the higher value dimension level (e.g., Sanchez, 2000). Schwartz has reported that value priorities have shown relationships with a wide range of phenomena:

> Among the behaviors studied are use of alcohol, condoms and drugs, delinquency, shoplifting, competition, hunting, various environmental and consumer behaviors, moral, religious and sexual behavior, autocratic, independent and dependent behavior, choice of university major, occupation and medical specialty, participation in sports, social contact with out-groups, and numerous voting studies. Among attitudinal variables that have been related to value priorities are job satisfaction, organizational commitment, trust in institutions, attitudes toward ethical dilemmas, toward the environment, sexism, religiosity, and identification with one's nation or group. Among personality variables studied are social desirability, social dominance, authoritarianism, interpersonal problems, subjective well-being, worries, and the Big 5 personality traits. This proliferation of behavior, attitude, and personality

studies testifies to the fruitfulness of the values theory and its promise for future research. (2006, p. 17)

1.2.4.2 Demographic findings.

Robust relationships have been found between values and age, gender, country and educational level. Age correlates positively with values that are positioned close to Conservation: Tradition, Security, and Conformity (Schwartz, 2006). Tradition values become more important with increasing age as further customs, cultures and traditions are experienced. Security values become more important with increasing age because a safe, predictable environment is critical as capacities to cope with change diminish with age. Conformity values become more important with increasing age as accepted ways of behaving are less demanding and threatening than are less known ways. In addition, as one ages, Stimulation values become less important because novelty and risk are threatening, Hedonism becomes less important because dulling of the senses reduces the capacity to enjoy sensual pleasure, and Achievement and Power values become less important because older people are less able at demanding tasks and in obtaining social approval (Schwartz, 1994a). Thus, younger individuals give greater priority to Openness-to-Change values (Self-Direction, Stimulation, Hedonism), and less priority to Conservation values (Security, Tradition, Conformity).

Gender differences are also noticeable as women attach less importance to Openness-to-Change (Stimulation, Self-Direction, Hedonism) and Self-Enhancement

(Power, Achievement, Hedonism) values, and more importance to Self-Transcendence and Conservation (Universalism, Benevolence, Conformity, Tradition, Security) values compared to men (Feather, 1984; Kasser, Koestner, & Lekes, 2002; Lindeman & Verkasalo, 2005; Schwartz, 2006; Schwartz & Rubel, 2005; Struch et al., 2002; Verkasalo, Daun, & Niit, 1994). Evolutionary psychologists (e.g., Wright, 1994) postulate that women gain evolutionary advantage from caring for the welfare of in-group members, whereas men gain evolutionary advantage from attaining and exploiting status and power. Women are more relational, expressive, and communal; men more autonomous, instrumental, and agentic. These dissimilar motives find expression as different value priorities (for a full discussion of values and gender differences, see Schwartz & Rubel, 2005).

Research indicates widespread consensus regarding the hierarchical order of values across continents and countries. Schwartz and Bardi (1997) describe a 'pan-cultural' baseline ranking of values in which Benevolence is most often ranked first, followed by Self-Direction, Universalism, Security, Conformity, Achievement, Hedonism, Stimulation, Tradition, and finally Power, and state that this order is found within 40-50% of nations. However, specific value priorities are more evident in particular countries. For example, Bain et al. (2006) found that Australians valued freedom and honesty more, compared to Japanese who valued social order and pleasure more.

Values are also associated with level of educational attainment (Schwartz, 2006). Obtaining greater formal education correlates with Self-Direction, Stimulation and Achievement values, and negatively with Conformity, Tradition, and Security

values. Self-Direction and Achievement, rather than Conformity and Tradition, have been shown to promote persistence through higher education (Schwartz, 2006). Kohn and Schooler (1983) contended that this is because educational experiences promote intellectual openness, flexibility, and breadth of perspective essential for Self-Direction and Achievement values. Schwartz (2006) postulated that obtaining education provides increasing competencies to cope with life, which reduces the importance of Security values.

To recap, individual value priorities arise out of adaptation to life experiences. Socio-demographic characteristics such as age, gender, country and educational level contribute to explaining individual differences in value priorities because they represent different life experiences.

1.2.4.3 Relational findings.

Few studies have investigated relational variables, such as the importance individual's place on values, their knowledge of their values, the extent to which they are living in alignment with values, and their satisfaction with their values, with the majority that have carried out such investigations choosing to focus on value importance. With regard to the importance of values, Bernard, Maio and Olson note that "there has been relatively little investigation into the psychological bases of value importance" (2003, p. 351), and Rohan (2000) concluded that the basis people use to determine the relative importance of their values has hardly been addressed in the values literature. Nonetheless, Verplanken and Holland (2002) demonstrated that the

importance of values has effects on behavioural decisions in that behavioural changes can occur through cognitively activating important values. In their study, when environmental words (e.g., earth, nature) were primed in participants for whom environmental values were central to their self-concept, these participants made more environmentally friendly choices. Likewise, Grunert and Juhl (1995) found certain values to be relevant for environmentally concerned behaviour, and Schultz and Zelezny (1999) found values to be predictors of environmental attitudes. In research where values are traded off for monetary or economic gain, some values are so important that they are treated as protected (Baron & Leshner, 2000; Baron & Spranca, 1997) or sacred (Tetlock, Kristel, Elson, Green, & Lerner, 2000; Tetlock, McGraw, & Kristel, 2004). Maio and Olson (1998) asked people why their values were important and found that people lacked explicit reasons, concluding that values are self-evident truisms. Schwartz and Bardi (1997) concluded that people adapt their values to their life circumstances; people upgrade the importance they attribute to values they can readily attain, and downgrade the importance of values they cannot. Although there are multiple influences on value priorities (e.g., parenting, temperaments, abilities, friends, the cultural environment, political and economic systems), people attribute varying degrees of importance to the values they hold.

There is little empirical psychological literature on the extent to which people know what their values are. In contrast, there is much commentary in popular discourse within the public domain. For example, Disney commented that “it’s not hard to make decisions when you know what your values are” (Disney, 2006, para. 1). Gaining knowledge of one’s values has often been referred to as ‘values

clarification' (Mickleburgh, 1992; Simon, Howe, & Kirschenbaum, 1995), and Sichel observed that "the goal of 'values clarification' is for their influence to become fully conscious, for you to explore and honestly acknowledge what you truly value at this time in your life" (1993, p. 55). The assumption here is that priority values are at the forefront and have a significant impact (Henderson, 2003), and as such, various values clarification manuals have been produced (e.g., Henderson, 2003; Miller, C'de Baca, & Matthews, 1999; Vachon & Agresti, 1992). Hiltin (2003) argued that such reflection on values produces personal identity, and in addition, Bain commented:

> Knowing your values also helps you make decisions, and evaluate other people. For example, when a person is formulating intent and choosing from alternatives, their values tell them if their decision will help them reach their goal, or if it would be socially unacceptable. In such situations where individual values conflict, value priorities help decide what is more or less important. Values also help in the evaluation of other people or situations, thus deeming individual action good or bad, right or wrong. (2005, p. 21)

In regard to living in alignment with values, a link has been postulated between *not* living in alignment with values and a range of negative consequences. For example, Peterson commented that "when we fail to express our values in our actions we feel discomfort or disappointment" (2006, p. 174). Conversely, Miller and C'de Baca (2001) have used case studies to outline the positive benefits of living a

life in alignment with personal values. The extent to which people live their lives in alignment with their values is, however, unclear, and the opportunity to express values is sometimes limited as people's life circumstances provide opportunities to pursue or express some values more easily than others (Schwartz, 2006). Schwartz provided the example that wealthy people can pursue Power values more easily, and people who work in free professions can express Self-Direction values more easily. Thus, life circumstances make the pursuit or expression of different values more or less rewarding, costly, or possible. As Peterson noted, "as ideal standards, values are not always achieved, and we should not be surprised when people's concrete behaviours do not map neatly onto what they profess, although there is usually a modest empirical association between values and behaviours" (2006, pp. 167-168). Bardi and Schwartz (2003) also note that behaviours may be influenced by more than one value, and Maio and Olson (1995) argued that situational forces and normative pressures can overwhelm values. Of course, it may be necessary for a person to first know their values, to internalise them into a cohesive network, and prescribe importance to them before they can live their life in alignment with them.

Although there is a limited amount of research on the importance of values, and a lesser amount on peoples' knowledge of their values or if they are living in alignment with their values, there has been no research on the extent to which people are satisfied with their values, and thus the influence of this relational aspect remains unknown. The closest the literature has come to touching on this aspect is in Miller and C'de Baca (2001), who provide various depictions of individuals who have

changed the importance they attribute to various values, resulting in increased satisfaction with their values and improved life satisfaction.

In summary, Schwartz's model has produced considerable research on relationships between specific values and behavioural, attitudinal, and personality variables, as well as on various demographic characteristics. There is also some limited research on relational variables relevant to this thesis, such as the importance of values, and to a lesser extent knowledge of values and living in alignment with values. However this research is scant and inclusive.

1.3 The measurement of values

The most common way of measuring values has been self-report (Braithwaite & Scott, 1991), as "researchers for the most part have assumed that people know what they think is desirable and hence can report their values" (Peterson, 2006, p. 179). In measuring values, researchers ask about attitudes and behaviours that presumably represent specific values, and from response patterns, infer people's values. Thus, self-report measurement of values is subject to the same biases as other self-report methods (Schuman, 1995), and is not necessarily a valid indicator of an underlying phenomenon.

As values' measures have amassed in the literature, they have been consolidated, elaborated and refined over time. Through this refinement, two principle foci of measurement have become apparent: identifying important

individual values, and assessing values' systems. Researchers originally focused on the importance of different values for different people, before focusing on the importance of values within people's value systems. As Kasser noted, "while individual values provide some information about people's experience and behaviour, most values theorists emphasize that it is best to assess the entire organization of values a person holds, that is, the person's value system" (2002, p. 124). Theorists generally conceive of value systems as a reasonably coherent set of values (individual, societal or absolute), which are used to set and readjust priorities and resolve conflicts (Joas, 2000; Seligman & Katz, 1996).

The following review of values' measures briefly covers four main instruments used in the domain of psychology for assessing personal values. Although many other values' measures exist, most are not widely used and many have been criticised on methodological grounds. In addition, there is still much debate regarding the best way to measure values (Hitlin & Piliavin, 2004), as values measurement is perceived as more complex than the measurement of most other psychological phenomena (Alwin & Krosnick, 1985; Braithwaite & Scott, 1991; Schwartz, 2006). As Hitlin and Piliavin mentioned, "measuring values, like measuring many social psychological concepts, is imperfect" (2004, p. 365). This brief review ends with a short outline of the three measures used in this thesis to assess and evaluate Schwartz's model.

1.3.1 Values' measures.

1.3.1.1 The Study of Values.

One of the first measurement instruments, and regarded as the first systematic attempt to measure values (Gordon, 1975), was Allport and Vernon's (1931) *Study of Values* (SOV), which "had a substantial impact on psychological practice and research" (Alwin & Krosnick, 1985, p. 536). The SOV consists of 45 items and relies on behavioural scenarios in measuring six types of values: aesthetic, political, social, religious, economic, and theoretical. Decades after its development, the SOV was widely used for counselling, pedagogical, and research purposes (Kopelman, Rovenpor, & Guan, 2003). A newly revised 4th edition of the SOV was published in 2003, in which the authors "spruce up" (Kopelman et al., 2003, p.205) the SOV for the 21st century, noting that previous versions suffered from outdated language and archaic content (Kopelman et al., 2003), which contributed to its "descent into psychological oblivion" (Peterson, 2006, p. 179). Changes to the 4th edition included gender-inclusive wording, expanded religious inclusiveness, and updated cultural conventions. Example items from the 4th edition include, 'the main object of scientific research should be the discovery of truth rather than its practical applications' and 'assuming that you have sufficient ability, would you prefer to be: (a) a banker; (b) a politician?'. From these items an individual's six types of values are inferred.

1.3.1.2 The Rokeach Value Survey.

Following the SOV, the most notable measure of values was the *Rokeach Value Survey* (RVS: Rokeach, 1973) (for a full discussion of pre-RVS value instruments, see Braithwaite & Scott 1991). The RVS was designed to operationalise the value construct, to measure personal and social values, and was the dominant method for measuring values from the 1970s until the early 1990s (Bain, 2005; Johnston, 1995). Many of the findings in the values literature have used the RVS. In answering the RVS, participants rank order the importance of 36 values as guiding principles in their lives; 18 terminal values (e.g., freedom, an exciting life, national security, true friendship) and 18 instrumental values (e.g., honesty, courage, ambition, politeness). Thus, the RVS measures two different types of values: terminal values (prioritised end states of existence) and instrumental values (prioritised modes of behaviour).

However the RVS has received various criticisms in the literature. Critics (e.g., Braithwaite & Scott, 1991; Schwartz, 1994a) lament that Rokeach relied on intuition in the development of both terminal and instrumental values, with various values drawn from his own values, his students' feedback, and research samples based solely on US citizens. Thus, the ability of the RVS to capture all values has been questioned (Braithwaite & Law, 1985).

1.3.1.3 The List of Values.

Following the RVS, Kahle (1983) produced the *List of Values* (LOV), which reduced Rokeach's list of 18 terminal values to nine (self-respect, security, warm

relationships with others, sense of accomplishment, self-fulfilment, sense of belonging, being well respected, fun and enjoyment in life, and excitement), and excluded instrumental values. Unlike other common measures, the nine values in the LOV can be scored in a number of ways; rated, ranked, or a combination. Values are described as 'things some people look for or want out of life', and as Bearden and Netemeyer have noted, the LOV measures values "that are central to people in living their lives, particularly the values of life's major roles (i.e., marriage, parenting, work, leisure, and daily consumptions)" (1999, p. 115).

The LOV was developed primarily from Feather's (1975) theoretical base of values, Maslow's hierarchy of needs (1959), and Rokeach's 18 terminal values (1973), and is tied most closely to Social Adaptation Theory. Kahle (1983) found the LOV to be significantly correlated with various measures of mental health, well-being, and adaption to society, and Kahle, Beatty and Homer (1986) found it to predict consumer behaviour.

1.3.1.4 The Personal Values Card Sort.

Miller et al. (1999) developed the *Personal Values Card Sort* (PVCS) as a clinical tool to assist clients in the exploration of their values. In this task, clients are asked to sort 72 values cards (e.g., achievement, compassion, creativity, growth) into one of three categories: 'very important to me,' 'important to me,' or 'not important to me', with the goal being to identify the person's top five or six values. Although no classification of values is included, the result of this sorting is said to provide

information of value content, structure and priorities (Miller, personal communication, April, 2003). Although there is scant empirical data available, due to its face validity and ease of use, the PVCS has been gaining in popularity in the clinical, coaching and counselling fields.

1.3.2 Measuring Schwartz's value theory.

The main difference between Rokeach's and Schwartz's approaches to measurement is that Rokeach advocated asking respondents to rank values, whereas Schwartz advocated a rating, nonforced-choice approach. Schwartz (1994a) also questioned Rokeach's distinction between terminal and instrumental values, and noted that the RVS provided little explanation of how values are related to each other, and whether each value had independent relationships with other variables such as attitudes and behaviours. These reasons prompted Schwartz to develop the Schwartz Value Survey.

In the literature to date, the three main instruments used to assess Schwartz's value theory have been the Schwartz Value Survey (SVS: Schwartz, 1992), the Portrait Values Questionnaire (PVQ: Schwartz et al., 2001) and the Short Schwartz Value Survey (SSVS: Lindeman & Verkasalo, 2005)[1].These three measures are further described in section 2.4.3.1. In brief, the Schwartz Value Survey consists of 56 items and measures values via rating the 10 value types. The 40 item Portrait

[1] A revised PVQ, the PVQX5, is also being released early 2011 by Schwartz (Schwartz, personal communication, August, 2010).

Values Questionnaire contains less-abstract items, making it more accessible to a wider population. The more concise 10 item Short Schwartz Value Survey directly assesses the 10 value types. However, there has been no research comparing these three measures, and little research comparing any two other than by the scale developers themselves (e.g., Lindeman & Verkasalo, 2005). There is also no clear guidance as to which particular measure is superior; indicating that further comparative research between these measures is needed.

1.3.3 Measurement concerns.

There are numerous issues regarding the measurement of values in the literature. These include debates around rating vs. ranking values, the use of behavioural scenarios, drawing on theory in measure development, and even whether it is possible to measures values at all.

Firstly, there is disagreement surrounding the psychometric adequacy of rating vs. ranking values. Rating involves evaluating the numerical worth of a particular value, whereas ranking involves ordering values by determined criteria (e.g., importance). On the one hand, rating values is said to be easier for participants (Schwartz, 1992) and allows for more comprehensive lists of values. However, rating is subject to ceiling effects, as people tend to rate values towards the higher end of rating scales due to their positive nature (Gordon, 1975; Hitlin & Piliavin, 2004). Thus, distinctions among particular values can be difficult to measure reliably or meaningfully as respondents may provide little variance with respect to

discriminating among values (Alwin & Krosnick, 1985). Schwartz addressed this concern by using an asymmetrical scale in the SVS to reflect the desirable nature of values (see section 2.4.3.1). Others found that ratings obtain greater variance if respondents were asked to pick their most and least important values from a list before rating the items (e.g., McCarty & Shrum, 2000), similar to the procedure of the SVS (see Appendix A). Schwartz (1992, 1996) also thought that rating values was closer to the way in which values enter into situations of behavioural choice. Thus, he concluded that rating provides more useful statistical properties, enables the use of longer lists, does not force respondents to discriminate between equally important values, and is closer to the way values are used as it allows people to indicate the importance of a value while keeping in mind the importance of other values.

On the other hand, ranking values yields ipsative scores; the position of each value held by the individual relative to other values (Cattell, 1944). Ranking is perceived by some as more 'real world' (Ball-Rokeach & Loges, 1996; Krosnick & Alwin 1988; Rokeach, 1973) and aligned with how people's value systems work; values are often in competition with one another. However, ranking abstract values is a cognitively challenging and taxing task (Alwin & Krosnick 1985; Schwartz, 1994a), and many (e.g., Braithwaite & Law, 1985) have criticised the more statistically complex ranking procedures as unnecessary on both theoretical and empirical grounds. Additionally, a limitation of ipsative scores is that comparisons cannot be made between samples (Peterson, 2006).

Most theorists (e.g., Bardi et al., 2009; Munson & McIntyre, 1979; Peterson, 2006; Schwartz, 2004) now take the view that ranking methods yield similar results

regarding the relative importance of values compared to rating methods. Given that many different values' measures agree substantially (e.g., Alwin & Krosnick, 1985; Beatty, Kahle, Homer, & Misra, 1985; Braithwaite & Law, 1985; Hechter, 1993; Kahle et al., 1986; Schwartz & Boehnke, 2004; Schwartz, Lehmann, & Roccas, 1999), this has allowed researchers to rely on the simpler, and more participant friendly, strategy of rating. Indeed, the literature currently contains more work employing the rating approach than the ranking approach (Hitlin & Piliavin, 2004), and rankings can be calculated after the fact from ratings (Peterson, 2006). For a review of the rating vs. ranking values debate, see Alwin and Krosnick (1985) or Ng (1982).

Secondly, in measuring values some theorists advocate using behavioural scenarios, such as in the SOV or PVQ (see list of abbreviations, p. xviii), rather than abstract ideals. In recent years, several researchers (e.g., Konty, 2002; Kopelman et al., 2003) have lamented the limited validity of currently used values' measures, and have called for the development of measures that rely on behavioural scenarios. The use of behavioural scenarios mitigates against requiring respondents to consciously access and report values. Some research suggests that what is valued in abstract terms may be differently valued using a behavioural scenario (Peng, Nisbett, & Wong, 1997). For example, Peng et al. (1997) compared three methods of value assessment: Rokeach rankings, Schwartz ratings, and a behavioural scenario method. Their findings indicated that rankings correlated only modestly with themselves (across samples) and showed small correlations with ratings. Neither ratings nor rankings related to an external criterion. In contrast, behavioural scenarios showed high

external validity. Hence, they suggested the use of behavioural scenarios to assess values, of which the SOV is a long-existing alternative, and the PVQ a more recent alternative. Indeed, rankings have been shown to change depending on the individuals' mindset (personal life vs. societal perspective), and location (work vs. home) (Brown & Crace, 1996). Consequently, Connor and Becker (1994) have advocated the development of an instrument that incorporates realistic behavioural-choice situations. Likewise, Peng et al. concluded that "the low criterion validity of commonly used value survey methods might be avoided by using the behavioral scenario method" (1997, p. 341).

Thirdly, most measures of values have not been derived from theory, and many of the measures are continual refinements of earlier scales. This approach fails to recognise the emergence of new values because of its reliance on theorising about old values (Peterson, 2006). For example, Braithwaite and Law (1985) discovered that Australians valued physical wellbeing and human rights, two values not assessed with original instruments such as the RVS. Instead, the trend has been for researchers to rely on their own intuitions and experiences in identifying a core of important values. For example, Rokeach (1973) relied largely on his own notions of what people value in developing his list of terminal values, and Miller and colleagues developed the PVCS "at the pub" (Miller, personal communication, April, 2003).

Finally, some question the very possibility of measuring values, pointing to various methodological concerns. For example, people may not always know what their values are due to their values cognitive accessibility (Hechter, 1993), or context may be important in influencing how people complete values' surveys. Using the

RVS, Seligman and Katz (1996) found situational variability of rankings for values such as ‘freedom’ and ‘wisdom’ in situations in which people were primed for their views on abortion and various environmental issues. They hypothesised that there may be different schemas activated by different contexts so that different values’ systems are activated accordingly. This suggests that the abstract nature of Rokeach’s and Schwartz’s original inventories may influence the values people report as being important. Konty (2002) developed a measure of values sensitive to contextual concerns and argued that such an approach offers more utility than the original SVS. However it is debatable whether any measure can assess the full dimensionality of values. As Schwartz commented, “the comprehensiveness of any set of value orientations in covering the full range of motivational goals cannot be tested definitively” (Schwartz, 2006, p. 2). There are also methodological concerns with studying values across the life course. Period, cohort, and aging effects are easily conflated (Alwin, Cohen, & Newcomb, 1991). Roberts and Bengtson (1999) used hierarchical linear models in an instructive attempt to disentangle these issues, arguing that more work needs to engage the longitudinal nature of values (e.g., Bardi et al, 2009). These methodological concerns deserve further consideration, and call into question the validity of values measurement.

In summary, there are various concerns regarding the measurement of values in the literature. Chiefly amongst these are debates around the superiority of rating vs. ranking values, the use of behavioural scenarios, drawing on theory in measure development, and whether it is possible to measure values at all.

1.4 Clinical Psychology

While Schwartz's work to date has been used primarily to examine the relationship between values and various social behaviours, attitudinal variables, and personality characteristics, there is growing interest in using the notion of values in the field of clinical psychology, particularly by the newer therapies, and particularly in relation to depression. In the following section, depressed mood is explained, its role in the clinical syndrome of depression is outlined, and its causes, costs, and treatments are briefly summarised. Following this, contemporary therapies that incorporate values are noted, as well as the challenges they face and benefits they confer. Empirical studies that have investigated the link between values and depressed mood are reviewed, and possible relationships between values and depressed mood are suggested.

1.4.1 Depressed mood.

The clinical syndrome of depression is characterised in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR: American Psychiatric Association, 2000) by a number of symptoms, including depressed mood, diminished interest or pleasure in activities, weight loss or gain, sleep disturbances, psychomotor agitation, fatigue, worthlessness or guilt, diminished concentration, and suicidal ideation. Depressed mood is thus one of the nine DSM-IV-TR symptoms that

characterise a major depressive episode, where the individual indicates “depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful)” (American Psychiatric Association, 2000, p. 356), and is a change from previous functioning.

The need to understand more about the clinical syndrome of depression remains as compelling as ever. Within the field of clinical psychology, depression is central (Bergin & Garfield, 2003), and is frequently identified as the most common and co-morbid of mental disorders in the western world (Klerman & Weissman, 1989). Young, Beck and Weinberger (2001) cite depression as the leading cause of disability, and the World Health Organisation cites depression as the second leading cause of disability in the age category 15-44 years for both sexes (WHO, 2005). At present in New Zealand, an estimated 6% of men and 9% of women (about 320,000 people) experience a depressive episode in any given year (Carter, 2004), and worldwide approximately 121 million people meet criteria for a depressive disorder (WHO, 2007). Seligman, Schulman, and Tryon (2007) estimated that depression will affect between 10% and 25% of adults during their lifetime, and in New Zealand, depression is the most prevalent psychological disorder with an overall lifetime prevalence of 16% (Oakley-Brown, Wells, Scott, & McGee, 2006). The World Health Organisation projected that depression will be the world’s second leading health problem by the year 2020 (WHO, 2005), and that increasing rates of depression have been well documented (see Fombonne, 1995). These statistics and projections highlight the seriousness and widespread nature of this disorder.

In addition to being common, depression has numerous human, social, and financial costs. The costs of depression are estimated in the hundreds of billions of dollars (US) a year internationally (Martell, Addis, & Jacobson, 2001). In 1990, depression was ranked as the fourth most costly of all illnesses worldwide (Keller & Boland, 1998), with further estimates that by 2015 depression will be the second most costly of all illnesses worldwide. The National Institute of Mental Health in the United States of America estimated the associated cost of depression to be more than 30 billion dollars (US) each year in the United States of America alone (Spielberger, Ritterband, Reheiser, & Brunner, 2003). In 2004 the World Bank estimated the global cost of depression solely to the corporate world at 240 billion dollars (US) each year (Layard, 2005). Depression also has many negative and disabling personal effects, such as increased risk of heart attacks, and is a frequent and serious complicating factor in stroke, diabetes, and cancer (Young et al., 2001).

There have been many causes postulated for depression, which include psychological, psychosocial, genetic, and biological factors. For example, commonly cited causes include negative life events and traumas, poor coping resources and skills deficits, low engagement in pleasant activities, neurochemical imbalances, and avoidant coping mechanisms (Beck, 1995; Brown, 1996; Fombonne, 1995; Martell et al., 2001) to name a few. It is generally thought that these various factors, or a combination thereof, influence the onset and maintenance of depression (Roth & Fonagy, 2005).

Currently, Cognitive Behaviour Therapy (CBT) is considered a ‘well established treatment’ (Butler & Beck, 2000) and the most empirically supported

psychological treatment for depression (Beck, 1995; Bergin & Garfield, 2003; Kazantzis, Deane, & Ronan, 2000; Young et al., 2001). Mainstream cognitive behavioural theories of depression include those developed by Beck (1976); Ellis (1962); Lewinsohn, Muñoz, Youngren, and Zeiss (1978); and Seligman (1991). Depending on the study, efficacy rates (or rates of 'marked relief') for CBT are usually reported around the 60% to 80% range (Bergin & Garfield, 2003; Dobson, 1989; Roth & Fonagy, 2005; Seligman et al., 2007; Young et al., 2001), meaning that roughly two out of every three people are successfully treated with a CBT-type approach (or received 'marked relief'). Effect sizes in large scale meta-analyses support these efficacy rates when comparing CBT to wait list, no-treatment list, or placebo controls (Butler & Beck, 2000). These efficacy rates are similar to the use of medications in the treatment of depression (Bergin & Garfield, 2003). Given that medications are a cheaper form of treatment (Roth & Fonagy, 2005), although only in the shorter term in comparison to CBT (Young et al., 2001), treatment providers often opt for medications before psychological treatments (Brown, 1996). However as Layard (2005) pointed out, this may also be due to a lack of available psychologists. Nonetheless, as Prochaska and Norcross state:

> Probably the safest prediction about cognitive therapy's direction is that it is moving up. Cognitive-behavioural therapies in general, and Beckian cognitive therapy in particular, are the fastest growing and most heavily researched orientations on the contemporary scene. The reasons for its current popularity are manifest: Cognitive therapy is manualized,

> relatively brief, extensively evaluated, medication compatible, and problem focused. Let us put it this way: If we were forced to purchase stock in any of the psychotherapy systems, Beck's cognitive therapy would be the blue-chip growth selection for the next five years. (2003, p. 369)

However, neither CBT nor medications are completely efficacious treatments for depression, as there is still much unknown about this clinical syndrome, as well as how CBT treatment works and why CBT is not a complete and comprehensive treatment for all individuals (Jacobson et al., 2000). For example, Wampold (2001) argued that alliance factors between therapist and client account for up to 60% of therapeutic outcome, rather than the 8% that is due to the model or technique. Previous research (Jarden, 2002, 2005) has also questioned the utility and effectiveness of the core construct of 'belief' in CBT as one potential reason hindering higher treatment success rates.

Nonetheless, health care providers are faced with a widespread, debilitating, and costly clinical syndrome for which the best current treatment is not completely efficacious for all individuals and for which treatment response lessens over time (Roth & Fonagy, 2005). There is a need for an improved approach to treating this clinical syndrome. Indeed, public health benefits on a large and long lasting scale may be possible through discovering inexpensive ways to prevent and treat this condition. Given this, cheaper, more effective, and more accessible treatments should be a high public health priority. Additionally, the need for a quick and effective way

to predict and screen for depression is also compelling, as Shapiro et al. (1984) indicate that as few as 20% of individuals with an affective disorder seek treatment.

In summary, depression is widespread, rates are increasing, the syndrome imposes huge costs on individuals and societies, and there is much room for improvement in both assessments and treatments.

1.4.2 Values and mood.

Whilst CBT has focused on constructs such as beliefs, thoughts, and explanatory style, rather than values, some contemporary therapies have incorporated the notion of values into their approach. This inclusion has largely been in recognition of the view that psychotherapy incorporates values out of necessity (Bergin, 1980; Beutler, 1979; Patterson, 1989). Examples of empirically supported therapeutic approaches that contain a focus on values include Acceptance and Commitment Therapy (ACT) (Hayes et al., 1999), Motivational Interviewing (MI) (Miller & Rollnick, 1991), Self-Determination Theory (SDT) (Deci & Ryan, 1985; Kasser, 2002), Quality of Life Therapy (QOLT) (Frisch, 2006), and Rational-Emotive Therapy (RET) (Ellis, 1994). For instance, Wilson and Murrell note that "ACT is a client-centred treatment in the sense that it is the client's values that direct the therapy" (2004, p. 140) and that "ACT is aimed squarely at helping clients to… live a life in pursuit of their most deeply held values" (2004, p. 124). As another example, Deci, Eghrari, Patrick and Leone explain that in SDT:

> The translation of values into behaviour is facilitated by a developmental process by which an individual integrates values and the associated regulatory mechanisms into their organized value system, even their core self. In essence, the individual becomes autonomous with respect to and takes full responsibility for the goal and the behaviours required. With integration, the importance of the goal is established and enhanced. It becomes a priority in relationship to other goals less integrated. (1994, p. 126)

In contrast to these approaches that incorporate and focus on values, the more central, predominant and currently popular psychotherapies, such as CBT (Beck, 1976; Beck, 1995; Beck, Rush, Shaw, & Emery, 1979) Behavioural Activation (BA) (Martell et al., 2001) or Interpersonal Psychotherapy (IPT) (Weissman & Markowitz, 1998) do not have a focus on values in their approaches.

Nonetheless, progress in approaches that do incorporate a focus on values remains relatively undeveloped and novel, as these approaches acknowledge that working with values in a therapeutic context is a new frontier and that "work in this area is just beginning" (Wilson & Murrell, 2004, p. 136). Despite previous research (see section 1.1.4), values work in psychotherapy is currently in a confused, uncertain, and ambiguous state regarding how to address values issues (Bergin at al., 1996; Wilson & Murrell, 2004). Most of this uncertainty reflects unresolved issues in working with values in a therapeutic context. For example, some note difficulty in

getting clients to engage fully in values work (Wilson & Murrell, 2004) and others note that the reliable and valid measurement of values remains impractical and problematic (Miller & Rollnick, 1991). Despite these issues, those working with values in a therapeutic context report therapeutic benefits (Hayes et al., 1999; Miller et al., 1999). Other helping professionals who work in the area of depressed mood, such as counsellors, psychiatrists, and life coaches, have also commented on the utility of values. For example, Henderson commented that:

> The key to having a fulfilling life is to do things that are in alignment with your personal values. When you bring your life into alignment with your values and are living according to these values, you will feel excited, energised, in control, and productive. Generally you will feel more confident and happy with your life as a whole. (2003, p. 7)

There is some, though not much, research on values in a therapeutic context. Ernst (2002) has outlined the importance of values in determining and promoting the health behaviours of fire-fighters, and the potential usefulness of values-based interventions in changing behaviour. Jessor (1991) found that high salience of values and low achievement (or expectation of achievement) of values led to higher rates of mental illness. Bergin at al. (1996) found that beneficial mental health consequences are an outcome of congruence or of behaving in synchrony with one's religious values, whereas acting contrary to personal values results in dissonance, with consequences of guilt, anxiety, despair, or alienation. Wilson and Murrell describe

individuals with a high discrepancy between rated importance and rated consistency of values as expressing a “lot of distress” (2004, p. 136). They noted that they “have found clinically that clients experience these discrepancies as very disturbing,...[that] they tend to be associated with a great deal of negative self-evaluation, guilt, sadness, and anxiety” (2004, p. 137), and that “a life that is lived outside a person’s most closely held values feels lousy” (2004, p. 124). Peterson commented that “we feel righteous when we live up to our values and shame and guilt when we do not even try” (2006, p. 168). Examples of other clinical studies include investigations into the relationship between values and worries (Schwartz, Sagiv, & Boehnke, 2000), alcohol use (Sanchez, 2000), drug use (Phillips & Bourne, 2007; Phillips, Russell, & Brennan, 2002), weight loss (Schwartz & Inbar-Saban, 1988), and smoking behaviour (Conroy, 1979). The picture that is emerging from such research and commentary is that values provide useful insights in a therapeutic context.

Nonetheless, with only a few limited studies, the paucity of research on the relationship between values and psychopathology is surprising given that helping professionals believe that people’s values have an impact on their mental health and emotional functioning (e.g., Patterson, 1958; Sichel, 1993; Timms, 1983; Van der Wateren, 1999), and that some values do more to promote mental health than others (Jensen & Bergin, 1988). For instance, Bergin et al. comment that it is “clear that clients’ values have negative emotional or physical consequences” (1996, p. 300), and Van der Wateren noted that “people with a clearly clarified values system in general utilise more constructive coping strategies and report a higher level of

psychological wellbeing" (1999, p. 15). However, this perspective on values in relation to psychopathology is based on a small amount of empirical research.

To date there have been only two small scale empirical studies that have specifically investigated the relationship between an individual's values and their depressed mood (Lester, 1991, 1993). With regard to the importance of values, Lester administered the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and Rokeach Values Survey (RVS) (Rokeach, 1973) to 127 college students and found that depression scores were not associated with responses on the RVS. However, later Lester (1993) acknowledged that errors were made in the scoring of the RVS in his initial 1991 study, so he undertook a second identical study with a further 108 college students (noting that the original data was unavailable). Results of his second study indicated that depression scores were negatively associated with the terminal value of 'equality' (r = -.27), and positively associated with the terminal value of 'pleasure' (r = .20). He again concluded that, on the whole, "responses to the Rokeach Value Survey were not associated with current depression" (1993, p. 1202).

In contrast to these two empirical studies, and as indicated above, there have been numerous clinical reports and observations indicating positive relationships between a person *knowing*, giving *importance* to, and *living by* their values, and their mental health functioning. For example, Sichel commented that a person can be "more self-directed and effective when they know which values they really choose to keep and live by as an adult, and which ones will get priority over others" (1993, p. 49). Donahue noted that "positive mental health indexes are generally aligned with a

person knowing and living by their values", with the converse leading to "less healthy and sometimes pathological or negative correlates" (1985, p. 412). Bergin et al. stated that "it sometimes becomes clear that clients' values have negative emotional or physical consequences" (1996, p. 300). In their clinical work with values, Wilson and Murrell describe individuals with "extreme low total importance scores" as a "clinically and theoretically interesting profile" (2004, p. 137). However, in regard to the contents of the values *per se* (i.e., value types), there is very little comment, and thus it is not known which values a person with depressed mood would endorse as most important, or indeed in which particular theoretical configuration. It remains possible that certain values may provide a protective function against depressed mood, whereas others may be associated with depressed mood.

In summary, the need to understand more about the common clinical syndrome of depression, including depressed mood, in order to address its numerous human, social, and financial costs by improving assessments and treatments, remains as compelling as ever. However to date, the main therapeutic approaches have focused on constructs such as beliefs and thoughts rather than values, with newer approaches and a broader spectrum of helping professionals just beginning to utilise the notion of values. Much of this advance, however, is limited by a paucity of research on the contents, coherence and relational aspects of values in relation to depressed mood.

1.4.3 Possible relationships between values and depressed mood.

Schwartz's integrated structure of values enables theorising about possible relationships between value priorities and other variables, such as depressed mood. As Schwartz commented:

> Theorizing begins with reasoning about the particular values that are most and least positively related to a variable. The circular motivational structure of values then implies a specific pattern of positive, negative, and zero associations for the remaining values. The next step is to develop theoretical explanations for why or why not to expect these implied associations. The integrated structure serves as a template that can reveal 'deviations' from the expected pattern. Deviations are especially interesting because they direct us to search for special conditions that enhance or weaken relations of a variable with values. (2006, p. 6)

Thus, given Schwartz's theoretical model, the research above, and in view of what is known about depression (e.g., Lewinsohn et al., 1978; Martell et al., 2001), one might reasonably expect individuals high in depressed mood to value Security, Conformity and Tradition more, and conversely attribute lesser value to the opposing values of Hedonism, Stimulation and Self-Direction. Thus, one might expect depressed individuals to be more invested in subordinating themselves by following and conforming to widespread rules and expectations (Conformity), to avoiding

change (Tradition), and to being safe (Security), and conversely be less invested in gratifying themselves (Hedonism), obtaining excitement and novelty (Stimulation), or in exploring or gaining autonomy (Self-Direction). It may also be reasonable to expect that individuals with high depressed mood have less coherent value systems compared to individuals with low depressed mood. Additionally, one might expect that individuals with more depressed mood place lesser importance on their values, have less knowledge of their values, are living in alignment with their values less, and are less satisfied with their values compared to individuals with less depressed mood.

1.5 Positive psychology

The field of positive psychology is a new direction for psychology (Peterson, 2006; Seligman & Csikszentmihalyi, 2000). Martin Seligman's 1998 APA presidential address is seen by many as the fields' inception date. In contrast to psychology's customary focus on the negative side of life and with what is going wrong with individuals, such as depression, anxiety and trauma, a steadily growing number of researchers has begun to focus on the positive side of life and on what is going right with individuals (Baumgardner & Crothers, 2009; Ben-Shahar, 2007; Boniwell, 2006; Burns, 2010; Carr, 2004; Diener & Biswas-Diener, 2008; Eid & Larsen, 2007; Kahneman, Diener, & Schwarz, 1999; Kashdan, 2009; Layard, 2005; Linley & Joseph, 2004; Peterson, 2006; Peterson & Seligman, 2004; Schwarzer & Peterson, 2008; Seligman, 2002; Van der Wateren, 1999). Moreover, there is growing interest in using the concept of values in the field of positive psychology in addition

to the field's current focus on constructs such as strengths, savouring, happiness, meaning, flow and mindfulness (e.g., Bryant & Veroff, 2007; Oishi, Diener, Suh, & Lucas, 1999; Joshanloo & Ghaedi, 2009).

The following section describes subjective wellbeing (SWB), including its history, recent conceptualisation and definition, example research findings, and various issues surrounding its measurement. Empirical studies that have investigated links between values and SWB are reviewed, and possible relationships between values and SWB are suggested.

1.5.1 Subjective wellbeing.

Subjective wellbeing is a prominent area of research within positive psychology (Davern, Cummins, & Stokes, 2007; Diener, Emmons, Larson, & Griffin, 1985; Diener, Suh, Lucas, & Smith, 1999; Eid & Larsen, 2007; Hayes & Joseph, 2003; Kashdan, 2004; Lyubomirsky & Lepper, 1999; Oishi et al., 1999), with the term frequently used interchangeably in the literature with "happiness" (Diener claims he invented 'SWB' in 1984 to gain a research grant; research on 'happiness' was not viewed as scientific: Diener, personal communication, July, 2008). Historically, discourse pertaining to happiness has been extensive. For example, Aristotle's view was that happiness is so important that it transcends all other worldly considerations (Aristotle, trans. 1967), and James's view was that "happiness is for most men, at all times, the secret motive of all they do…" (1902, p. 76). Indeed, "western culture has embraced happiness as one of its most important goals – both at

an individual level and for society at large" (Lyubomirsky & Lepper, 1999, p. 137), and "personal happiness is generally held to be the most important goal in life" (Fordyce, 1988, p. 63). However, there are 21 articles on depression for every one article on happiness (Ben-Shahar, 2007), and thus the science of happiness, rather than the discourse, has not been so extensive (Graham, 2009).

Serious research into happiness began around the 1960s. A leading study at that time was Wilson's (1967) review of the characteristics of a happy person; young, healthy, educated, well paid, extraverted, optimistic, married, religious, and intelligent, with high esteem and job morale. Happiness research increased in the 1970s; for example, *Psychological Abstracts International* began listing happiness as an index term in 1973 (Diener, 1984). From the 1980s onward there was "an explosion of research on happiness" (Lyubomirsky & Lepper, 1999, p. 138.) culminating in hundreds of studies being published annually. For example, Schwarzer and Peterson (2008) noted that the keyword 'wellbeing' was linked to only 20 journal articles in the year 1999, but to 300 articles in 2006. Within positive psychology, the notion of SWB (or 'happiness') is central (Lopez & Snyder, 2003). This increasing trend in SWB research has taken place against a backdrop where the secret of and path to happiness have remained a subject of tremendous popular interest (Freedman, 1978; Layard, 2005). For example, a poll in the United Kingdom found that 81% of respondents thought the government's primary goal ought to be the 'greatest happiness' rather than the 'greatest wealth' (Easton, 2006).

Research to date has found that individuals reporting high SWB have, for example, stronger social relationships (Christakis & Fowler, 2009; Diener &

Seligman, 2002), greater marital satisfaction (Glenn & Weaver, 1981), greater academic success (Borrello, 2005), lower suicide risk (Diener et al., 1999), and improved important life outcomes, such as better physical and mental health (Pavot & Diener, 2008). Indeed, people with positive self-perceptions also tend to live longer (Carr, 2004), earn more (Graham, 2009; Layard, 2005), and are more productive (Eid & Larsen, 2007). In contrast, researchers have identified groups low in SWB; e.g., prison inmates, divorced individuals, sex workers, and individuals with various health concerns (see Pavot & Diener, 2008).

Three lines of research into influences on SWB are noteworthy (Sagvi & Schwartz, 2000). One line has examined effects of objective life circumstances on SWB (e.g., relationship status, employment, location), another the effects of the behaviours and activities that people engage in on SWB (e.g., exercise, sexual practices, internet use), and lastly how personality attributes are related to SWB (e.g., extraversion, neuroticism, agreeableness). For example, extraversion consistently relates to SWB (DeNeve & Cooper, 1998) with happy individuals having "social, outgoing personalities, as well as positive feelings about themselves, their sense of mastery, and the future" (Lyubomirsky & Lepper, 1999, p. 367).

Research has begun to investigate the factors influencing SWB. Suggested components include aspects such as using psychological strengths (Linley, 2008), being curious (Kashdan, 2009), discovering meaning in life (Steger, 2009), finding flow (Csikszentmihalyi, 1990), and being connected (Christakis & Fowler, 2009). Recent research (Jarden et al., in press) has also highlighted additional components that contribute more to wellbeing than aspects currently studied (e.g., people's

satisfaction with their use of time). These findings have led to various approaches to increasing peoples' wellbeing, including wholesale approaches such as Frisch's Quality of Life Therapy (2006) or Fordyce's Happiness Increasing Program (1977), and to smaller 'interventions' such as increasing hope (Snyder, 2002), discovering meaning (Steger, 2009), or utilising strengths (Linley, Willars, & Biswas-Diener, 2010). However, none of these focus on values.

Similar to clinical interventions, these current approaches to increasing wellbeing have not been shown to lead to either total or long lasting increases in SWB. Conversely, people are largely bound by 'hedonic adaptation' in which "people soon adapt to their new circumstances, and their level of SWB returns to a level similar to that reported before the event of change occurred" (Pavot & Diener, 2008, p. 139). For an overview of the area of hedonic psychology, see Kahneman et al., (1999).

Much of the research to date has relied on dissimilar definitions of SWB. In conceptualising SWB, the term has been used inclusively to refer to life satisfaction, happiness, the presence of positive affect, and the absence of negative affect (Davern et al., 2007; DeNeve & Cooper, 1998; Diener, Suh, Lucas, & Smith, 1999; Kashdan, 2004). Thus, SWB has been conceptualised as multifaceted, having both a cognitive and an affective component. The cognitive component usually consists of life satisfaction; a global evaluation of the quality of one's life as a whole (Pavot & Diener, 1993). The affective component usually consists of either a combination of positive and negative affect (e.g., Diener et al., 1999), or of solely positive affect (e.g., Sagiv & Schwartz, 2000).

An early definition by Diener (1984) defined SWB as a combination of life satisfaction (a cognitive judgement) and the balance of the frequency of positive and negative affect (i.e., "hedonic tone": Lyubomirsky & Lepper, 1999, p. 365). Prior to this the focus was solely on positive affect; however life satisfaction was found to provide "important additional predictive power, over and above moment-to-moment assessment of affect" (Pavot, & Diener, 2008, p. 141), with "the current view in the well-being literature that the cognitive and affective aspects of subjective well-being are distinct and their indexes should be kept separate" (Sagiv & Schwartz, 2000, p. 184). As the literature developed, researchers identified problems with using the balance of the frequency of positive and negative affect (e.g. Argyle & Martin, 1991), arguing that positive and negative affect are largely independent factors (e.g., Bradburn, 1969). In addition, others have criticised the Positive and Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988), one of the main measures used to assess the balance of positive and negative affect in the assessment of SWB, for various reasons (e.g., its unipolar nature, or that it only includes high arousal emotions) (Schimmack & Grob, 2000; Watson & Vaidya, 2003). Although this debate has not concluded, in line with how the literature is developing, this thesis conceptualises SWB as a combination of life satisfaction and positive affect[2].

Given this conceptual disparity, SWB has been measured in a number of ways. As Fordyce mentions, "over the years, no measure of happiness has emerged as a standard reference-point for ongoing study" (1988, p. 65). Nonetheless, as SWB is a

[2] An additional reason is that this thesis also focuses on the conceptually similar notion of depressed mood, and thus leaving negative affect out makes the distinction between depressed mood and SWB more discrete.

subjective experience, similar to depressed mood, it is best assessed by directly asking people (Abbe, Tkach, & Lyubomirsky, 2003). As Lyubomirsky and Lepper note, "most people *know* that they are happy or that they are not" (1999, p. 138). Moreover, Diener (2000) argues that this self-referential approach is democratic as it respects a person's right to make his or her own evaluations about their happiness. Common measures of SWB include the Satisfaction with Life Scale (SwLS: Diener et al., 1985), the Subjective Happiness Scale (SHS) (Lyubomirsky & Lepper, 1999), the Positive and Negative Affect Scale (PANAS) (Watson et al., 1988), the Happiness Measures (HM) (Fordyce, 1988), and the Affect Balance Scale (Bradburn, 1969). Previous popular measures also include the Delighted-Terrible Scale (Andrews & Withey, 1976) and Self Anchoring Striving Scale (Cantril, 1965); both single item scales. The Psychological General Well-being Index (Dupuy, 1984) has also been popular (for an overview of the development of SWB measures, see Angner, 2005).

Nonetheless, there is still considerable debate over whether self-reports of life satisfaction are related to SWB. Self-reports of life satisfaction are considered valid if they correlate reliably with predicted objective indicators associated with wellbeing. Indeed, high correlations have been found between SWB measures and expert ratings, family and friend reports, time smiling, with frequency of good moods, and with memory of positive and negative life events (Sandvik, Diener, & Seidlitz, 1993). As well as being valid, self-reports of life satisfaction are reliable as findings are consistent and stable across cultures, between varied samples, and over time (Fordyce, 1988; Pavot & Diener, 2008). People tend to give the same patterns of response over time, even when slightly different question wordings are used

(Graham, 2009). Currently cited problems associated with SWB measures include the possibilities of response and memory bias, context and priming effects (Diener et al., 1999), as well as vagueness and influences of mood and culturally determined beliefs about happiness (see Thomas & Diener, 1990).

In summary, SWB is important on both theoretical and practical levels, research on SWB is increasing, issues with measurement are being addressed, and conceptual clarification is improving.

1.5.2 Values and wellbeing.

There are limited findings to date on the relationship between values and wellbeing. Indeed, of all the main books published in the field of positive psychology to date, only two specifically address the topic of values; both focusing on Schwartz's model (i.e., Peterson, 2006; Boniwell, 2006). In addition, there are only a handful of journal articles that focus specifically on the association between values and wellbeing (e.g., Joshanloo & Ghaedi, 2009; Oishi et al., 1999). The most notable article is by Sagiv and Schwartz (2000), who investigated direct relations and congruity effects of values priorities on SWB. They investigated whether SWB depends on congruence between values and the prevailing value environment; how situational opportunities for realising values moderate the relations of value priorities to SWB.

Sagiv and Schwartz (2000) have hypothesised direct associations between increased SWB and Stimulation, Self-Direction, Achievement, Benevolence and Universalism, and low SWB and Conformity, Tradition, Security, and Power (Hedonism was excluded). They based their reasoning on various psychotherapy theories, inferences and findings from self determination theory, and a conceptual analysis of the relationships of value priorities to needs and emotional resources. As Sagiv and Schwartz mention:

> There is a considerable agreement in the psychotherapy literature in the West that particular values contribute positively to personal mental health whereas other values are detrimental. For example, Jensen and Bergin (1988) identified values from the self-direction (e.g. autonomy, freedom), benevolence (e.g. responsibility, inter-personal and family relationships), and universalism (e.g. self-awareness, personal growth) value types as 'healthy'. Similarly, Strupp (1980) referred to autonomy (self-direction), responsibility (benevolence) and fairness to others (universalism) as 'healthy values'. There is also some agreement that achievement and stimulation values are 'healthy' values. In contrast, values of the conformity, tradition, security and power types are often considered 'unhealthy'. (2000, p. 180)

Sagiv and Schwartz also note that although there is agreement, "data to support these speculations is sparse" (2000, 180), and indeed psychotherapy

researchers have not explicitly discussed the causal processes that might link mental health to the importance attributed to healthy or unhealthy values. However, Freedman (1978) reported that older people who are happy are more confident in their guiding values, and Vachon and Agresti commented that "it appears as though people with a clearly clarified values system in general utilise more constructive coping strategies and report a higher level of psychological wellbeing" (1992, p. 513). Pavot and Diener mentioned that "a person's conscious evaluation of her or his life circumstances may reflect conscious values and goals" (1993, p. 165). However, similar to the area of depressed mood, there is little research indicating which types of values, or which configuration, may be associated with higher SWB. Findings to date indicate that Self-Direction, Stimulation, Achievement, Tradition, Conformity and Security values are correlated with the affective component of SWB, but not with the cognitive component (Sagiv & Schwartz, 2000). In addition, several empirical studies have reported associations between 'life goals' or 'personal strivings' and indicators of 'wellbeing' (Emmons, 1991; Kasser & Ryan, 1993, 1996; Sheldon & Kasser, 1995). According to self determination theory, people are likely to experience a positive sense of wellbeing to the extent that they pursue intrinsic rather than extrinsic needs or goals (Deci & Ryan, 1995). Schwartz (1992) takes life goals and personal strivings to be value constructs in that they motivate action and serve as standards for evaluating behaviour and events across situations. These studies have generally found positive associations between having 'life goals' or 'personal strivings' and various indicators of wellbeing.

In summary, the need to understand more about SWB remains as compelling as ever. However to date positive psychologists have focused on constructs such as strengths, meaning, savouring, mindfulness, and flow rather than values. There is currently a paucity of research on the contents, organisation and relational aspects of values in relation to SWB.

1.5.3 Possible relationships between values and subjective wellbeing

Theorising from Schwartz's model, and in light of the research indicating that a person's subjective sense of wellbeing might depend on their profile of value priorities, one might reasonably expect individuals high in SWB to value Self-Direction, Stimulation, and Hedonism highly, and conversely attribute lesser value to the opposing values of Security, Conformity and Tradition. Thus, one might expect high SWB individuals to be satisfying their pleasures (Hedonism), leading an exciting and challenging life (Stimulation), and having some control, independence and mastery over their experiences (Self-Direction), and conversely be less invested in subordinating themselves by conforming to rules and expectations (Conformity), to avoiding change (Tradition), and to being safe (Security). It may also be reasonable to expect that individuals high in SWB have more coherent values' systems compared to individuals low in SWB. Additionally, one might expect that individuals with high SWB place more importance on their values, have more knowledge of their values, are living in alignment with their values more, and are more satisfied with their values compared to individuals with low SWB.

1.6 Research goals

Given the paucity of empirical research to date, specific predictions concerning the relationships between personal values, and depressed mood and SWB are tentative. Although the above reviews of clinical and positive psychology have speculated at possible relationships, they also highlight that there is very little empirical justification for these speculations. With this point in mind, the broad research questions were as follows:

1. Are people's values related to their moods? More specifically, are the types of values (value types) people endorse or their coherence related to their depressed mood, and are people's relationships to their values (importance of, knowledge of, living in alignment with, or satisfaction with) related to their depressed mood.

2. Are people's values related to their wellbeing? More specifically, are the types of values people endorse or their coherence related to their SWB, and are people's relationships to their values related to their SWB.

The broad aim of this thesis was to investigate and clarify these relationships, and to determine if the notion of values can be more useful in the fields of clinical and positive psychology. This thesis aims to contribute to our knowledge of values in

these domains in particular. In view of the *prima facie* importance of values, researchers and practitioners may benefit from explicit descriptions of the types, coherence, and relational aspects of values underlying depressed mood and SWB.

1.7 Summary

There has been little contemporary research investigating values in psychology, especially in relation to clinical or positive psychology. Currently the role that personal values play in relation to mood or wellbeing is largely unknown, as highlighted by the limited use of the concept in the clinical and positive psychological literature, which scarcely mentions values. Instead, clinical psychology has focused on constructs, such as beliefs, thoughts, and explanatory style, and positive psychology has focused on constructs such as strengths, meaning, flow and savouring.

Given that values are important, that both clinical and positive psychology have largely neglected the subject of values, that work pertaining to values to date shows considerable promise, that treatments for depression are not completely efficacious, that values seem to be related to wellbeing, and that values are set to play a bigger part in clinical and positive psychology in particular, it seems imperative for psychology to learn more about values, the influence they have, and their relationships to both depressed mood and SWB. With these points in mind, the purpose of this thesis was to explore important relationships between personal values, and depressed mood and SWB.

CHAPTER 2: STUDY ONE

2.1 Introduction

Study One analysed the degree to which people's values related to their depressed mood and SWB. In investigating these relationships, participants completed eight measures: four measures of personal values, one of depressed mood, and three of SWB. This second chapter is in four main sections. The first section outlines the hypotheses investigated, the second outlines the method, and the third reports the results. The chapter concludes with a summary of the results of this study.

2.2 Aims

The first aim was to identify the best values measure of three main approaches: the SVS, SSVS, and PVQ (see list of abbreviations, p. xviii). The second aim was to investigate relationships between the importance of individuals' values, and their depressed mood and SWB. The third aim was to investigate relationships between individuals' satisfaction with their values, and their depressed mood and SWB. In doing so, the overarching goal was to increase understanding of the relationships between the importance of, and satisfaction with, personal values, and with mood and wellbeing.

2.3 Hypotheses

Four hypotheses (H1 to H4) addressed the relationship between values and depressed mood, and four (H5 to H8) addressed the relationship between values and SWB. It was expected that greater depressed mood would be associated with lesser importance of, and current satisfaction with, values as a whole; and that greater SWB would be associated with greater importance of, and current satisfaction with, values as a whole. It was also expected that greater depressed mood and lower SWB would be associated with greater importance of, and current satisfaction with, the value types of Security, Conformity and Tradition, and conversely that lower depressed mood and greater SWB would be associated with greater importance of, and current satisfaction with, the value types of Hedonism, Stimulation and Self-Direction. These hypotheses are outlined in Table 2.

Table 2
Hypotheses Tested in Study One

Hypothesis	Hypothesis Label	Actual Hypothesis
H1	The importance of values as a whole and depressed mood.	Depressed mood would be negatively related with importance ratings of values as a whole.
H2	The importance of specific values and depressed mood.	Depressed mood would be positively related with importance ratings of Security, Conformity and Tradition, and negatively related with importance ratings of Hedonism, Stimulation and Self-Direction.
H3	The current satisfaction with values as a whole and depressed mood.	Depressed mood would be negatively related with ratings of current satisfaction with values as a whole.
H4	The current satisfaction with specific values and depressed mood.	Depressed mood would be positively related with current satisfaction ratings with Security, Conformity and Tradition, and negatively related with current satisfaction ratings with Hedonism, Stimulation and Self-Direction.
H5	The importance of values as a whole and SWB.	SWB would be positively related with importance ratings of values as a whole.
H6	The importance of specific values and SWB.	SWB would be positively related with importance ratings of Hedonism, Stimulation and Self-Direction, and negatively related with importance ratings of Security, Conformity and Tradition.
H7	The current satisfaction with values as a whole and SWB.	SWB would be positively related with ratings of current satisfaction with values as a whole.

H8	The current satisfaction with specific values and SWB.	SWB would be positively related with current satisfaction ratings with Hedonism, Stimulation and Self-Direction, and negatively related with current satisfaction ratings with Security, Conformity and Tradition.

2.4 Method

2.4.1 Design.

A battery of previously validated instruments was selected to measure the variables of interest via a paper-based survey. These instruments comprised the primary source of data for this study (labelled The Important Values Study - see Appendix A) and were brief psychometric scales (i.e., 40 items or fewer). This battery consisted of seven standardised self-report questionnaires and one adapted scale.

These measures are reviewed in detail in section 2.4.3. All of the measures used were suitable for the intended participants of this research in that they met age, language and user qualification requirements. The measures were also freely available or available with permission; with the exception of the BDI-II which cost NZ$5 per form. Five trial participants took an average of 22 minutes to complete this battery of measures. Taken as a whole, these measures focused on personal values, depressed mood, and SWB.

2.4.2 Participants.

Participants for this study consisted of a convenience sample, and were invited to participate via recruitment display posters around the University of Canterbury campus, snowballing through friends and family (in person, phone, e-mail), and by being approached in public places (e.g., airport lounge, city library, train station). Study One was limited to approximately 100 participants due to the NZ$5 cost per form for the BDI-II. One hundred and three participants volunteered and completed Study One. These participants were all 18 years of age or older; those under 18 were excluded due to psychometric instrument age requirements.

2.4.2.1 Demographics.

Participants were asked to provide information regarding six variables of interest: their gender, age, whether English was their first language, whether they were a current New Zealand university student, if they had a current or previous psychiatric diagnosis, and whether they had any current medical illness. This information is displayed in Table 3.

Table 3
Demographic Information for All 103 Participants

	N	*%*
Gender		
Male	45	44
Female	58	56
English as a first language		
Yes	76	74
No	27	26
Current New Zealand university student		
Yes	33	32
No	70	68
Psychiatric diagnosis		
Yes	17	17
No	86	83
Medical illness		
Yes	23	22
No	80	78

Participants' ages ranged from 19 to 72 years, with a mean age of 35.63 (*SD* = 12.13). Further description of how demographic information was collected is included in section 2.4.4.

2.4.3 Materials.

The standardised measures included three of personal values, one of depressed mood, and three of SWB. The three of personal values included the Schwartz Value

Survey (SVS) (Schwartz, 1992), which measures the 10 Schwartz values, the Short Schwartz Value Survey (SSVS) (Lindeman & Verkasalo, 2005), which explicitly measures the 10 Schwartz values, and the Portrait Values Questionnaire (PVQ) (Schwartz et al., 2001), which is an implicit measure of the 10 Schwartz values. The depressed mood measure was the Beck Depression Inventory-II (BDI-II) (Beck, Steer, & Brown, 1996), which is a measure of depressed mood. The three SWB measures included the Satisfaction with Life Scale (SwLS) (Diener et al., 1985), which measures global cognitive judgments of life satisfaction, the Happiness Measures (HM) (Fordyce, 1988), which is a measure of emotional wellbeing (i.e., positive affect), and the Subjective Happiness Scale (SHS) (Lyubomirsky & Lepper, 1999), which is a measure of global happiness. The non-standardised measure was the Current Satisfaction-Short Schwartz Value Survey (CS-SSVS), which is an adaptation of the SSVS in which the 10 value types from the SSVS are listed and respondents rate their current satisfaction with each of the 10 value types. Thus, the CS-SSVS purports to measure both current satisfaction with values as a whole, and current satisfaction with each of the 10 value types. These measures are presented in Appendix A and reviewed in detail below.

2.4.3.1 Values' measures.

2.4.3.1.1 Schwartz Value Survey.

The Schwartz Value Survey (SVS) (Schwartz, 1992) consists of 56 value items, which represent and relate to the 10 Schwartz value types. The SVS presents two lists of value items. The first contains 30 items that describe potentially desirable end-states in noun form; the second contains 26 items that describe potentially desirable ways of acting in adjective form. Respondents first anchor the scale with their most important and least important values from the list of 56, then rate the importance of each remaining value item as "a guiding principle in my life". The rating scale consists of a 9-point non-symmetrical scale, ranging from 7 (of supreme importance) through 0 (not important), to -1 (opposed to my values). A non-symmetrical scale is used because people's values vary from mildly to very important, and thus the scale is stretched at the upper end and condensed at the lower end in order to map the way people think about values (Schwartz, 1992; Schwartz & Bilsky, 1987). Each of the 56 value items is followed by an explanatory phrase in parenthesis that clarifies its meaning (e.g., Social Order - stability of society, Freedom - freedom of action and thought) and is a marker for one of the 10 value types – each item expresses an aspect of the motivational goal of one value type. Each value type ranges from having three to eight items associated with it, and thus scores for each of the 10 value types consist of average ratings of importance for each value type's set of items. The SVS also provides index scores of instrumental and terminal values. The psychometric properties of the SVS have been extensively evaluated (e.g., Rice, 2006; Ryckman & Houston, 2003; Sarros & Santora, 2001; Yik & Tang, 1996), demonstrating high reliability. Lindeman and Verkasalo comment that "studies in 70 countries have supported the validity of the SVS" (2005, p. 171),

and that the SVS is “the most commonly used method in recent value research” (2005, p. 170). The SVS takes approximately 10 minutes to complete. For a more detailed discussion of the SVS, see Struch et al. (2002). The average reliability of the 10 SVS values is reported as ranging from .49 to .79 (Schwartz, 2005b); in Study One the SVS’s Cronbach Alpha was .85, and individual value reliabilities ranged from .41 to .69.

2.4.3.1.2 Short Schwartz Value Survey.

The Short Schwartz Value Survey (SSVS) (Lindeman & Verkasalo, 2005) was derived from the longer SVS. The SSVS consists of the 10 value types, each with a description to clarify its meaning (e.g., Power - social power, authority, wealth; Benevolence - helpfulness, honesty, forgiveness, loyalty, responsibility; Hedonism - gratification of desires, enjoyment in life, self-indulgence). Participants rate the importance of the 10 items as life guiding principles in their lives on a 9-point non-symmetrical scale ranging from 0 (opposed to my principles), to 1 (not important), to 4 (important), to 8 (of supreme importance) – in line with Schwartz’s recommendation (see Schwartz, 1992). Lindeman and Verkasalo investigated the reliability and validity of the SSVS in four separate studies, and with the aid of multi-dimensional scaling, concluded that the SSVS has “good reliability and validity and that the values measured by the SSVS were arrayed on a circle identical to the theoretical structure of values” (2005, p. 170). The SSVS takes on average 2 minutes to complete, and the scale authors note that it gives insight into the 10 broad value

types, not the 56 specific individual values of the SVS. The average reliability of the 10 SSVS values is reported as ranging from .34 to .77 (Lindeman & Verkasalo, 2005); in Study One the SSVS's Cronbach Alpha was .73, and item total correlations ranged from .24 to .54.

2.4.3.1.3 Current Satisfaction-Short Schwartz Value Survey.

The Current Satisfaction-Short Schwartz Value Survey (CS-SSVS) was derived from the SSVS. The CS-SSVS has the same 10 value items as described in the SSVS, but with two modifications. Firstly, rather than ask respondents to think about what their values are and rate their importance as life guiding principles (as in the SSVS), respondents are asked to think about whether they possess each of the 10 value types and how satisfied they currently are with each. Secondly, rather than rating on a non-symmetrical scale from 0 to 8, where 0 is 'opposed to my principles', and 8 is 'of supreme importance' (as in the SSVS), participants rate the 10 value items on a 0 to 8 scale, where 0 is 'completely unsatisfied' and 8 is 'completely satisfied'. Individual value type scores range from 0 to 8, and total current satisfaction scores range from 0 to 80, with 0 representing completely unsatisfied, 40 representing neutral satisfaction, and 80 representing complete satisfaction with values as a whole. In Study One the CS-SSVS's Cronbach Alpha was .70, and item total correlations ranged from .41 to .68 (with the exception of Power = .12).

2.4.3.1.4 Portrait Values Questionnaire.

The Portrait Values Questionnaire (PVQ) (Schwartz et al., 2001) consists of 40 items which implicitly measure the 10 Schwartz value types. Each item is a short verbal portrayal of a person's goals, aspirations, or wishes that point implicitly to the importance of one of the 10 value types. For example (male version), 'it is important to him to listen to people who are different from him' or 'even when he disagrees with them, he still wants to understand them' both implicitly measure the value type Universalism. A description such as, 'it is important to him to be rich. He wants to have a lot of money and expensive things' implicitly measures the value type Power. As an implicit measure, respondents are unaware that they are answering a values questionnaire. Each of the 10 value types is measured by a set of PVQ items, which contain three to six short statements (i.e., value items). For example, the value type Universalism has six items and the value type Hedonism has three items. Participants are instructed to read each description and consider the extent to which the person in the description is like them (i.e., 'how much like you is this person?'). For each item, respondents check one of six boxes ranging from (6) 'very much like me', through to (1) 'not like me at all', in order to indicate how similar they perceive the person in the scenario to be to themselves. Respondents' values are inferred from the implicit values of the people they consider similar to themselves. Both male and female versions of the PVQ are available; the only difference between versions is the wording of the gender of the characters in the descriptions.

The PVQ is reported by the authors as being easier and less cognitively taxing to complete than other values' measures, as it involves less abstract thinking ability.

Indeed, the PVQ was developed as an alternative to the SVS to measure values in samples of children from age 11, the elderly, and persons not educated in Western schools that emphasise abstract, context-free thinking. Studies in seven countries have supported the reliability of the PVQ for measuring the 10 value types (Lindeman & Verkasalo, 2005). For example, multi-method, multi-trait analyses in Germany, Israel, and the Ukraine compared the measurements of the 10 value types using the PVQ and SVS and confirmed the convergent and discriminate validity of the 10 value types measured by the PVQ (Schwartz, 2003). The validity of the PVQ has also been established by Koivula and Verkasalo (2006), who compared it between samples of students who completed the PVQ and SVS, and concluded that the value structure produced by the PVQ is similar to the SVS and follows Schwartz's model. The PVQ takes approximately 10 minutes to complete. The average reliability of the 10 PVQ values is reported as ranging from .37 to .79 (Schwartz et al., 2001); in Study One the PVQ's Cronbach Alpha was .76, and individual value reliabilities ranged from .31 to .55.

2.4.3.2 Mood measure.

2.4.3.2.1 Beck Depression Inventory–II.

The Beck Depression Inventory-II (BDI-II: Beck et al., 1996) consists of 21 self-report items, and assesses the severity of depression in diagnosed patients and screens for depression in the normal population. The 21 items cover symptoms and

aspects of the experiences of depression. Respondents are asked to endorse the most characteristic statement under each of the 21 item headings, over a period of 'the past two weeks, including today'. Respondents rate each symptom on a four point scale ranging from 'minimal', to 'mild', to 'moderate', to 'severe'. As examples, item one is headed 'sadness' and respondents choose from '0 – I do not feel sad', to '1 – I feel sad much of the time', to '2 – I am sad all the time', to '3 – I am so sad and unhappy that I can't stand it'. Item two is headed 'pessimism' and respondents choose from '0 – I am not discouraged about my future', to '1 – I feel more discouraged about my future than I used to be', to '2 – I do not expect things to work out for me', to '3 – I feel my future is hopeless and will only get worse'. Scores range from 0 to 63, with scores in the 14 to 19 range indicating mild depression, scores in the 20 to 28 range indicating moderate depression, and scores over 29 indicating severe depression (Beck et al., 1996). Dozois, Dobson, and Ahnberg (1998) recommend similar cut-off scores: 0 to 12 indicating non-depressed, 13 to 19 indicating dysphoria, and 20 to 63 indicating depressed mood. The psychometric properties of the BDI-II have been well assessed using clinical and non-clinical samples, and according to Watson and Vaidya (2003), are exceptional (for a full review, see Dozois et al., 1998). The BDI-II takes approximately 5 minutes to complete, and is the most widely used clinical measure for the assessment of depression (Martell et al., 2001). The average reliability of the BDI-II is reported as .91 (Dozois et al., 1998); in Study One the BDI-II's Cronbach Alpha was .81.

2.4.3.3 Wellbeing measures.

2.4.3.3.1 Satisfaction with Life Scale.

The Satisfaction with Life Scale (SwLS) (Diener et al., 1985) is a five item measure that assesses an individual's global judgement of life satisfaction as a whole. The SwLS measures the cognitive component of SWB, and provides an integrated judgement of how a person's life as a whole is going. In completing the SwLS, participants rate five statements ('In most ways my life is close to my ideal', 'the conditions of my life are excellent', 'I am satisfied with my life', 'so far I have gotten the important things I want in life', and 'If I could live my life over, I would change almost nothing') on a seven point Likert scale, ranging from (1) 'strongly disagree', to (4) 'neither agree nor disagree', to (7) 'strongly agree'. The five items are keyed in a positive direction so that responses can be added to calculate a total score, which ranges from 5 to 35. Pavot and Diener (2008) report that scores from 5 to 9 indicate that an individual is extremely dissatisfied with life, from 10 to 14 dissatisfied with life, from 15 to 19 slightly dissatisfied with life, that a score of 20 indicates neutral life satisfaction, from 21 to 25 slight satisfaction with life, from 26 to 30 satisfaction with life, and from 31 to 35 extreme satisfaction with life.

The SwLS has been used in hundreds of studies and has demonstrated good psychometric properties (Pavot & Diener, 2008; Pavot, Diener, Colvin, & Sandvik, 1991). Hayes and Joseph (2003) reported an adult mean score of 24.1 (*SD* = 6.9), Chang and Sanna (2001) reported mean scores for adults in international and cross-cultural samples of 23.0 (*SD* = 6.8) for males and 23.7 (*SD* = 6.7) for females, and

Gannon and Ranzijn (2005) reported an adult mean of 24.9 (*SD* = 6.0). The SwLS takes approximately 2 minutes to complete. For a complete review of psychometric properties and a full discussion of associated issues, see Pavot and Diener (1993, 2008). The average reliability of the SwLS is reported as .87 (Diener et al., 1985); in Study One the SwLS Cronbach Alpha was .81.

2.4.3.3.2 Happiness Measures.

The Happiness Measures (HM) (Fordyce, 1988), also known as the Fordyce Emotion Questionnaire, is a measure of emotional wellbeing that provides an indication of a person's perceived happiness, and measures the affective component of SWB. The HM consists of two questions on happiness. The first item measures happiness on a 'happiness/unhappiness scale'. Respondents choose from 11 descriptive phrases on a 0 to 10 scale. These descriptors range from (0) 'extremely unhappy', to (5) 'neutral', to (10) 'extremely happy', and measure perceived quality of general happiness. The second item is an estimate of the percentages of time respondents feel happy, unhappy, and neutral. With both items, the HM assesses both intensity and frequency of affect; the first question measuring intensity, and the second item's percentage estimates measuring frequency. In scoring the HM, the scale score (item one) and three percentage estimates (item two) are used directly as raw scores. A combination score can also be calculated, which combines the scale score and percentage happy score in equal weights (combination score = [scale score × 10 + happy%]/2). However, this score is seldom reported in the literature. As an

example, reported norms for community college students with a mean age of 26 years include a HM scale mean score of 6.92 (*SD* = 1.75), a percentage happy mean score of 54.13 (*SD* = 21.52), a percentage unhappy mean score of 20.44 (*SD* = 14.69), and a percentage neutral mean score of 25.43 (*SD* = 16.52). Fordyce commented that "it would be safe to classify the HM as the most thoroughly analyzed wellbeing measure developed in the field" (1988, p. 81), including over 1,500 administrations, and that it is "considered by some to be the 'grand daddy' of them all [of happiness measures]" (1988, p. 65). Fordyce further noted that "from the collected data, it would appear that the Happiness Measures demonstrates strong reliability; remarkable stability; relative freedom from response, sex, age, and race bias; and an exceptionally wide background of evidence supporting it's convergent, construct, concurrent, and discriminative validity" (1988, p. 81-82). Diener reviewed 20 happiness and wellbeing instruments and concluded that the HM, in comparison to other measures of wellbeing, has the strongest correlations with daily affect and life satisfaction (1984), and is a reliable and valid test that "should receive more widespread use" (1984, p. 549). The HM takes approximately 2 minutes to complete.

2.4.3.3.3 Subjective Happiness Scale.

The Subjective Happiness Scale (SHS) (Lyubomirsky & Lepper, 1999) is a four item measure of global subjective happiness. Whilst other measures assess the affective (the HM) and cognitive (the SwLS) components of SWB, the SHS measures SWB as a whole. Lyubomirsky and Lepper claim that the SHS reflects "a broader and

more molar category of wellbeing and taps into more global psychological phenomena" (1999, p. 139). In completing the SHS, respondents rate four items on different Likert scales, each ranging from 1 to 7. Participants are asked to 'circle the point on the scale that you feel is most appropriate in describing you'. The first item asks respondents whether, in general, they consider themselves to be (1) 'not a very happy person' to (7) 'a very happy person'. The second item asks if, compared to their peers, they consider themselves to be (1) 'less happy' to (7) 'more happy'. Both the third and fourth items give descriptions and ask 'to what extent does this characterization describe you?', with responses ranging from 'not at all' to 'a great deal'. For item three, the description is 'some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything', and item four is 'some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be'. Scores are totalled for the four items, and range from 4 to 28. An average of the four items provides a composite score for global subjective happiness; most research reports this score. Seligman (2002) reported an adult US mean score of 4.8, and that two-thirds of people score between 3.8 and 5.8. Lyubomirsky and Lepper (1999) report mean scores for 14 studies, ranging from 4.02 (*SD* = 0.93) to 5.62 (*SD* = 0.96). As examples, a US adult city community sample mean was 5.62 (*SD* = 0.96), a US female adult town community sample mean score was 4.80 (*SD* = 1.12), and a US public college student sample mean score was 4.89 (*SD* = 1.11). Lyubomirsky and Lepper also noted that the SHS is "suited for different age, occupational, linguistic, and cultural groups" (1999, p. 150) and takes approximately 2 minutes to complete. The average reliability

of the SHS is reported as .86 (Lyubomirsky & Lepper, 1999); in Study One the SHS's Cronbach Alpha was .81.

The above scales provided a comprehensive assessment of the important domains of interest. In combination they provided a general assessment of an individual's personal values, depressed mood, and SWB.

2.4.4 Procedure.

Depending on the method by which the participant became aware of the study (i.e., e-mail, recruitment poster, personal approach), participants were invited to contact the researcher by phone, e-mail or psychology department office number. For those who volunteered at the University of Canterbury campus, a convenient time and place (a private and quiet testing room) in the Psychology Department was arranged to complete the study forms and measures. For those who were approached in person, a quiet place was sought that was as free as possible from interruptions.

When participants were presented with the questionnaires, they firstly read a short information sheet which described the study and then signed a consent form. They then entered demographic information for the six demographic variables of interest. After demographic questions were completed, the measures in Study One were randomly presented. At the completion of the study, participants were thanked for their time and given a NZ$5 Instant Kiwi ticket for their participation. Once the respondent had completed the measures, as a condition of ethical approval from the

University of Canterbury Human Ethics Committee, the suicide screening questions in the BDI-II (i.e., items two and nine) were viewed by the researcher, with accommodations made for positive indications of suicide (i.e., referral to Psychiatric Emergency Service, or the University of Canterbury psychology clinic). However, no respondents indicated suicidal ideation or intent.

The raw data from the questionnaires was manually entered into a Microsoft Excel spreadsheet, and analysis of the data was conducted using the Statistical Package for the Social Sciences (SPSS 17) (Miller, Acton, Fullerton, & Maltby, 2009; Pallant, 2007). Ten percent of the data (n = 10 questionnaires) was randomly selected and independently cross checked for data entry accuracy, with no errors being detected. No data is available on how many people were reached by the recruitment e-mails or display posters, so response rates cannot be calculated.

2.5 Results

This section presents analyses of the data from Study One. Firstly, a preliminary analysis compared the six demographic variables for all participants (age, gender, English as a first language, New Zealand university student, psychiatric diagnosis, and medical illness) against the 12 main outcome variables provided by the study measures (total SVS score, SVS Instrumental Values total, SVS Terminal Values total, total SSVS score, total PVQ score, total CS-SSVS score, total BDI-II score, total SwLS score, total SHS score, HM scale score, HM percent happy score, and HM percent unhappy score). Next, the reliabilities of the three values' measures were

analysed (Cronbach Alphas), as well as their inter-relationships (correlations). Each values measure's ability to assess Schwartz's model in the data was also assessed (multidimensional scaling). Following this, analysis focused on the two main research questions: the relationship between the importance of, and satisfaction with, personal values and with depressed mood, and between the importance of, and satisfaction with, personal values and with SWB. In each of these two sections, within groups analysis is presented first (correlations, sinusoid curves, and regression analyses) followed by between groups analysis (*t*-tests, multidimensional scaling).

2.5.1 Demographic variables and main outcome variables.

The results in this section address the relationship between the six demographic variables and the 12 main outcome variables provided by the study measures. Firstly, Pearson Product-moment correlations were calculated to look at how age related to the 12 main outcome variables. There were no statistically significant correlations ($p < .05$) between age and the 12 main outcome variables.

Next, a series of 60 (5×12) independent samples *t*-tests were performed to investigate the effects of each of the remaining five demographic variables (gender, English as a first language, New Zealand university student, psychiatric diagnosis, and medical illness) on the 12 main outcome variables. There were no statistically significant ($p < .05$) effects of participant gender, English as a first language, or

current New Zealand university student, on how participants responded on the 12 main outcome variables.

However, participants with a current or previous psychiatric diagnosis reported greater depressed mood on the BDI-II (M = 10.24, SD = 10.21) than those without a diagnosis (M = 6.26, SD = 6.14), $t(101) = 2.159$, $p = .033$, $d = .47$, and lower emotional wellbeing on HM scale score ratings (M = 6.59, SD = 2.09) compared to those without a diagnosis (M = 7.44, SD = 1.16), $t(101) = -2.355$, $p = .021$, $d = .50$.

In addition, participants with a current medical illness also reported lower life satisfaction on the SwLS (M = 21.89, SD = 6.32) compared to those without a current medical illness (M = 24.71, SD = 5.04), $t(101) = -2.038$, $p = .045$, $d = .49$.

In summary, analysis of the six demographic variables indicated that age, gender, having English as a first language, or being a current New Zealand university student were not associated with values, depressed mood or SWB. However, as would be expected, participants with a psychiatric diagnosis reported greater depressed mood and lower emotional wellbeing, and participants with a medical illness reported lower life satisfaction.

2.5.2 The relationship between values' measures.

The results in this section concern the relationships between three different tools for measuring personal values: the SVS, SSVS and PVQ. Previous research (e.g., Lindeman & Verkasalo, 2005; McCarty & Shrum, 2000; Schwartz et al., 2001) has

indicated that the three different ways of measuring Schwartz's value theory provide highly comparable results, although only one study has compared all three measures directly (i.e., the developers of the SSVS: Lindeman & Verkasalo, 2005). The following analysis was conducted to assess the reliability and validity of the three measures, as well as their ability to measure Schwartz's model, in the current data.

Firstly, reliability analysis indicated that all three measures were reliable. The SVS Cronbach Alpha coefficient was .85, the PVQ Cronbach Alpha coefficient was .76, and the SSVS Cronbach Alpha coefficient was .73. Table 4 shows internal reliability coefficients for the SVS, SSVS, and PVQ value types.

Table 4
Cronbach Alpha Coefficient Reliabilities for the SVS, SSVS and PVQ Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
SVS	.41	.54	.69	.55	.61	.44	.60	.67	.51	.66
PVQ	.55	.47	.33	.41	.31	.26	.48	.44	.43	.51
SSVS	.40	.48	.34	.37	.38	.24	.42	.32	.43	.54

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. SVS = Schwartz Value Survey. PVQ = Portrait Values Questionnaire. SSVS = Short Schwartz Value Survey.

Although never large, reliability varied little across measures and was within the range of variation commonly observed for the individual value types (E.G., Joshanloo & Ghaedi, 2009; Schwartz, Verkasalo, Antonovsky & Sagiv, 1997).

Next, Pearson Product-moment correlation coefficients were calculated between the three measures. There were large positive correlations between the SVS and SSVS total importance of values scores ($r = .73$, $p < .01$), between the SVS and PVQ total importance of values scores ($r = .57$, $p < .01$), and between the SSVS and PVQ total importance of values scores ($r = .53$, $p < .01$). As shown in Table 5, there were moderate to large positive correlations between importance ratings of the 10 value types and the three values' measures, indicating that all three measures were reasonably inter-related.

Table 5
Pearson Product-moment Correlations relating the SVS, SSVS and PVQ Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
SVS & SSVS	.640**	.765**	.614**	.627**	.625**	.463**	.708**	.574**	.824**	.559**
SVS & PVQ	.416**	.628**	.414**	.644**	.437**	.588**	.512**	.503**	.639**	.501**
SSVS &PVQ	.353**	.514**	.336**	.585**	.520**	.483**	.569**	.611**	.539**	.439**

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. SVS = Schwartz Value Survey. SSVS = Short Schwartz Value Survey. PVQ = Portrait Values Questionnaire.
**$p < .01$.

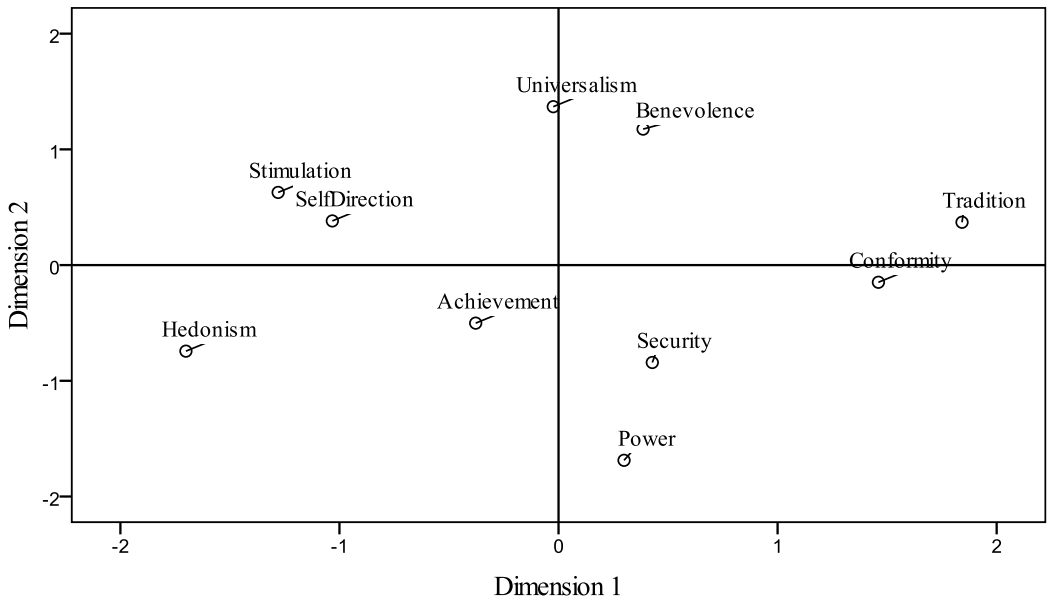
Following this, and in line with previous research (e.g., Koivula & Verkasalo, 2006; Schwartz, 1992, 1994; Schwartz, Sagiv, & Boehnke, 2000), multidimensional scaling analysis (MDS: Davison, 1983) was performed using SPSS 17 (Miller et al., 2009) to verify the distinctiveness of the 10 value types in the data as being similar to Schwartz's values structure (see Figure 1, p. 47). Multidimensional scaling (MDS) provides a visual representation of the pattern of proximities (i.e., similarities or distances) among a set of objects on two dimensions (Schiffman, Reynolds, &Young, 1981). Cox and Cox define MDS widely as "any technique which produces a graphical representation of objects from multivariate data" (2001, p. 2) and narrowly as "the search for a low dimensional space, usually Euclidian, in which points in the space represent the objects, one point representing one object, and such that the distances between the points in the space, match, as well as possible, the original

dissimilarities" (2001, p. 3). In short, the distances between the points reflect the empirical relations among the values, and MDS thus examines the spatial representations of relations (i.e., similarities or dissimilarities) among the 10 values. As Lindeman and Verkasalo (2005) mention:

> The more similar two values are conceptually, the higher the intercorrelation between their importance ratings, the more similar their pattern of correlations with all other values, and the closer they lie in the multidimensional space. Dissimilar values have opposing patterns of correlations and will thus be located at a substantial distance from one another." (2005, p. 172)

Figures 2, 3, and 4 confirm the value structure of Study One participants, as assessed with the SVS, SSVS and PVQ, as largely representing Schwartz's model[3].

[3] Schwartz's model (i.e., Figure 1) is reproduced below all MDS figures for ease of comparison.



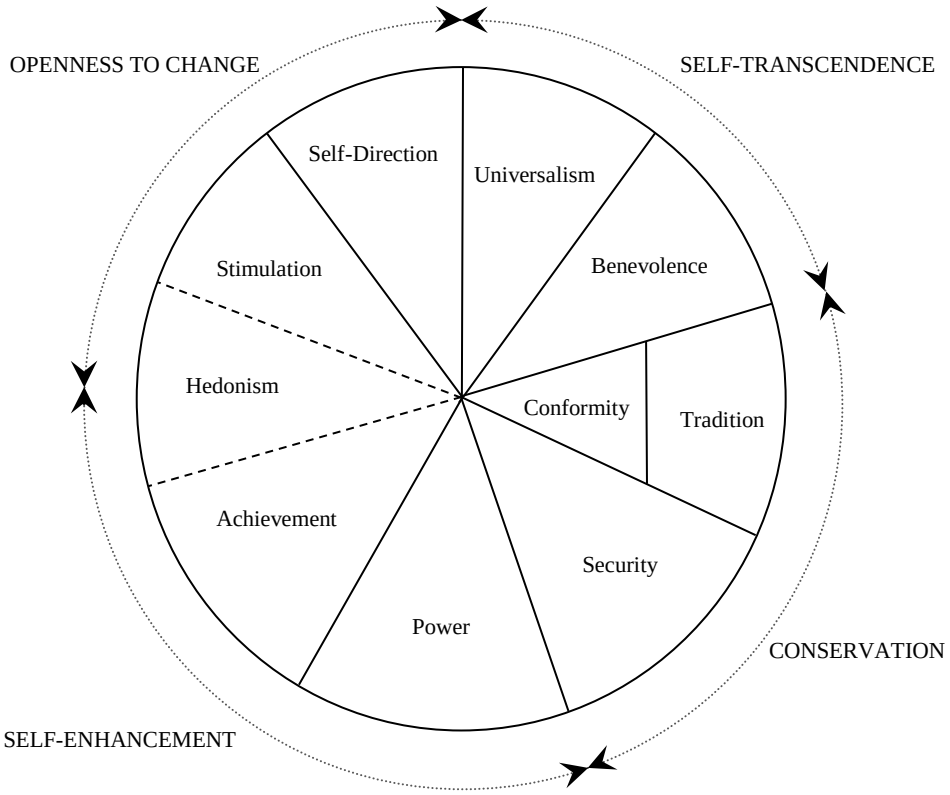
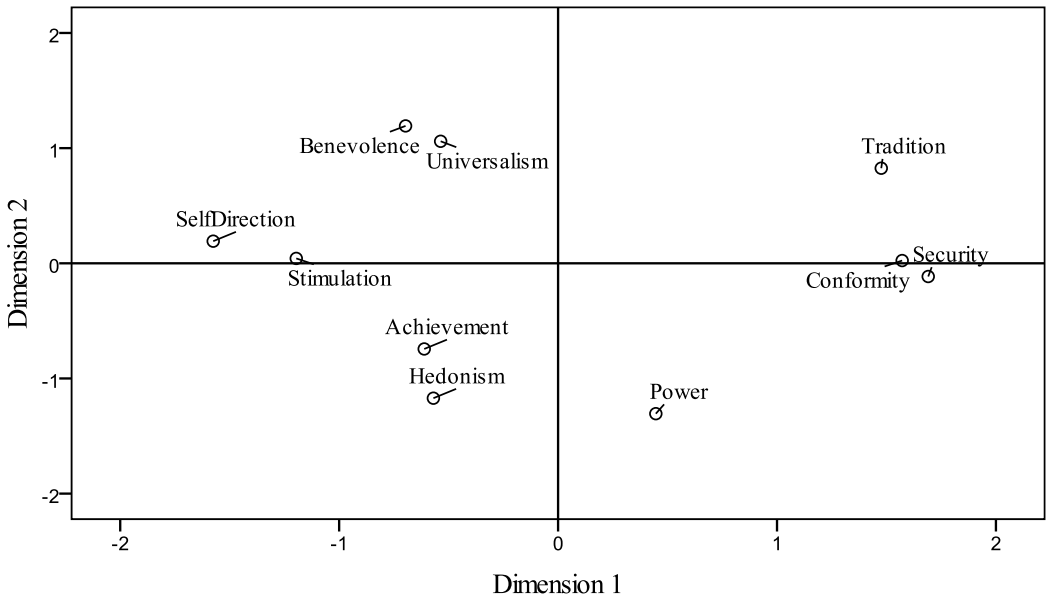


Figure 2. Value structure of Study One participants studied with the SVS: Multidimensional scaling analyses.



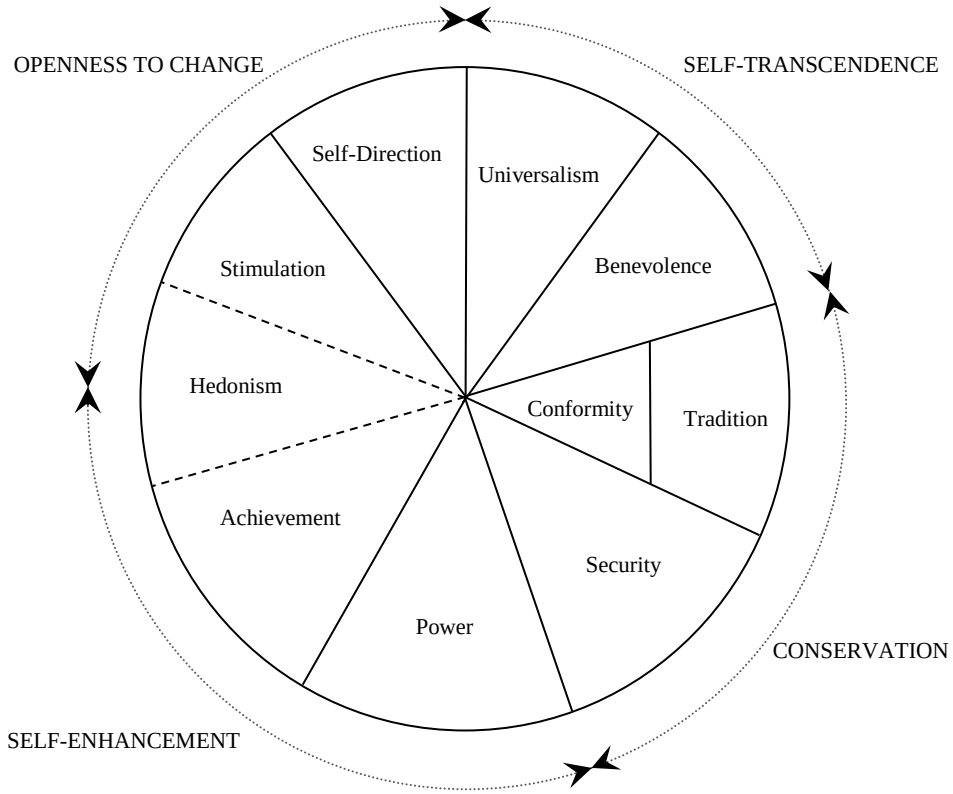


Figure 3. Value structure of Study One participants studied with the SSVS: Multidimensional scaling analyses.

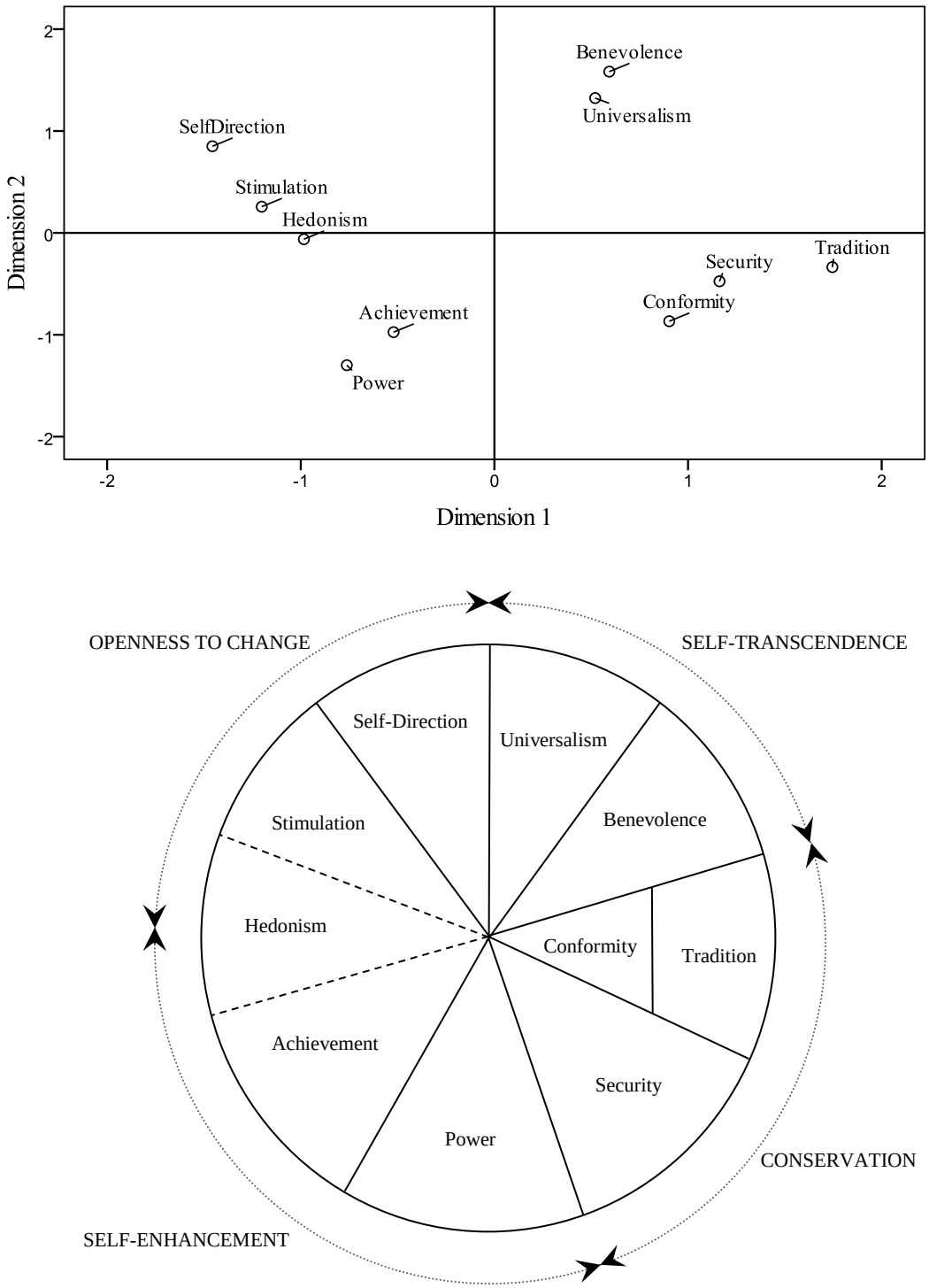


Figure 4. Value structure of Study One participants studied with the PVQ: Multidimensional scaling analyses.

The results of MDS analysis using the SVS, SSVS and PVQ largely indicate 10 separate value sectors in the proposed theoretical order for each values' measure. In Figure 2, the bipolar dimensions are not as discrete as in Figure 3, nor are the sections as circular; for example, Achievement is pictured towards the centre with distances towards its opposing values of Universalism and Benevolence similar to the distances to its neighbouring congruent values of Hedonism and Power. Self-Direction is also closer to Achievement than Stimulation. In Figure 4 there are minor deviations: the order of Power and Achievement is swapped, and the order of Conformity and Security is swapped. Thus, for example, Hedonism appears to have an as equal relationship with Power as with Achievement, and Security and Power are separated by both Achievement and Conformity. Although all three measures largely verify the existence of Schwartz's model in the data, the pattern of associations produced by the SSVS (Figure 3) was visually closest to representing Schwartz's value structure, meaning the SSVS was most similar at identifying Schwartz's model in the data.

In summary, Schwartz's model was apparent in the present data with all three measures largely verifying the distinctiveness of the 10 value types according to Schwartz's theory, with the SSVS being slightly more similar than the other two measures. All three measures were reliable and reasonably inter-related with regard to both the total importance of values as a whole, and the 10 specific value types. On the basis of the above analysis, further analysis proceeded with the SSVS.

2.5.3 Depressed mood.

2.5.3.1 Correlation analysis.

The results in this section address hypotheses H1 to H4. Firstly, Pearson Product-moment correlations were calculated to look at how depressed mood related to total SSVS and total CS-SSVS scores, and also the 10 SSVS and 10 CS-SSVS value types. There was no statistically significant correlation ($p < .05$) between total BDI-II scores and total SSVS scores; however there was a moderate negative correlation between total BDI-II scores and total CS-SSVS scores, $r = -.34$, $p < .01$. Thus there was no association between the importance of values as a whole and depressed mood (H1); however lower current satisfaction with values as a whole was associated with greater depressed mood (H3).

Table 6 presents Pearson Product-moment correlations between total BDI-II scores, and the 10 SSVS and 10 CS-SSVS value types.

Table 6
Pearson Product-moment Correlations relating BDI-II Scores to SSVS and CS-SSVS Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
BDI-II & SSVS	-.036	-.154	-.126	.028	-.236*	.109	.107	.040	-.080	-.233*
BDI-II & CS-SSVS	-.382**	-.228*	-.219*	-.145	-.240*	-.125	-.210*	-.165	-.195	-.359**

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. BDI-II = Beck Depression Inventory-II. SSVS = Short Schwartz Value Survey. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
*$p < .05$, **$p < .01$.

As shown in Table 6, analysis of the importance of the 10 value types indicated that greater depressed mood was not associated with any of the six hypothesised value types: Security, Conformity, Tradition, Hedonism, Stimulation and Self-Direction (H2). Instead, greater depressed mood was associated with lesser importance of both Achievement and Benevolence. Table 6 also shows that greater depressed mood was associated with lower current satisfaction with Hedonism, Stimulation, Self-Direction as hypothesised, but not with greater current satisfaction with Security, Conformity and Tradition as hypothesised (H4). Instead, greater depressed mood was associated with lesser current satisfaction with Conformity, Benevolence and Achievement.

Next the analysis looked at the pattern of associations of the SSVS and CS-SSVS values in relation to depressed mood. The organisation of Schwartz's value

structure means that associations between value priorities can be represented graphically against other variables with a sinusoid curve. Such an approach highlights patterns of associations, in this case providing insight into the coherence of values in relation to depressed mood. Figure 5 shows the expected pattern of associations according to the theorising for the relationship between depressed mood and the 10 Schwartz values ("Schwartz theory": H2 & H4 - see section 1.4.3). This sinusoid curve depicts correlation results from Table 6: the associations between BDI-II scores and the 10 SSVS and 10 CS-SSVS Schwartz value types.

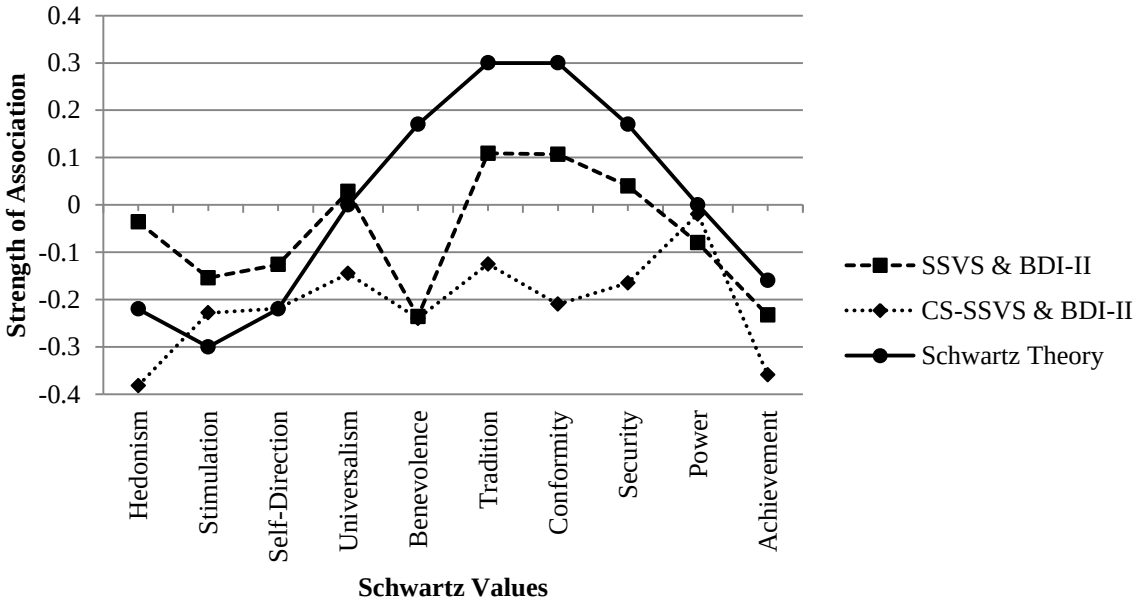


Figure 5. Sinusoid curve of value associations between BDI-II scores, and SSVS and CS-SSVS values.

With the exception of Benevolence, the results indicate that the relationships between the SSVS value types and depressed mood were in the expected direction with the pattern of associations mirroring theorising about the relationship between depressed mood and the 10 Schwartz values. However, the relationships between the CS-SSVS value types and depressed mood provide a mixed picture. Although the direction of associations for Hedonism, Stimulation and Self-Direction are in the expected direction and in line with H4, the direction of associations for Tradition, Conformity and Security are not. Thus, the pattern of associations according to theorising from Schwartz's model is apparent for Hedonism, Stimulation and Self-Direction, but not for Tradition, Conformity and Security. In addition, the pattern is also apparent for Power and Achievement, but not for Universalism and Benevolence.

In summary, there was no association between the importance of values as a whole and depressed mood (H1); however, lower current satisfaction with values as a whole was associated with greater depressed mood (H3). Analysis of the importance of the 10 value types indicated that greater depressed mood was associated with lesser importance of both Achievement and Benevolence (H2). Greater depressed mood was also associated with lower current satisfaction with Hedonism, Stimulation, Self-Direction, Benevolence, Conformity and Achievement (H4). In addition, the pattern of associations between the SSVS value types and depressed mood largely mirrored theorising from Schwartz's model, but the relationships between the CS-SSVS value types and depressed mood provided a mixed picture.

2.5.3.2 Regression analysis.

This section presents results from hierarchical multiple regression analysis which addressed hypotheses H1 to H4: the relationship between the importance of, and satisfaction with, values and with depressed mood. Table 7 shows results of four hierarchical multiple regressions: predicting depressed mood from the importance of values (H1), the importance of specific values (H2), the current satisfaction with values (H3), and the current satisfaction with specific values (H4).

Table 7

Hierarchical Multiple Regression Analyses Predicting Depressed Mood from the Importance of Values (H1), the Importance of Specific Values (H2), the Current Satisfaction with Values (H3), and the Current Satisfaction with Specific Values (H4).

Variable	R^2	ΔR^2	B	SE B	β
H1					
Step 1	.032	.032			
Constant			4.966	3.468	
Age			-.833	1.433	-.059
Gender			.091	.059	.157
Step 2	.036	.004			
Constant			7.488	5.257	
Age			.084	.060	.145
Gender			-.875	1.438	-.064
SSVS total			-.047	.074	-.064
H2					
Step 1	.031	.031			
Constant			5.285	3.561	
Age			.087	.060	.149
Gender			-.925	1.454	-.065
Step 2	.188	.157			
Constant			13.620	5.645	
Age			.023	.064	.038
Gender			-.972	1.452	-.068
SSVS Hedonism			.238	.411	.066
SSVS Stimulation			-.356	.596	-.082
SSVS Self-Direction			.710	.621	.162
SSVS Universalism			.827	.459	.206
SSVS Benevolence			-1.913	.711	-.351**
SSVS Tradition			.131	.491	.034
SSVS Conformity			1.414	.655	.384*
SSVS Security			-.876	.556	-.227
SSVS Power			-.359	.451	-.102

SSVS Achievement			-.864	.532	-.219
H3					
Step 1	.037	.037			
Constant			5.627	3.374	
Age			.086	.057	.153
Gender			-1.205	1.408	-.088
Step 2	.141	.104**			
Constant			13.233	3.912	
Age			.087	.054	.156
Gender			-.511	1.352	-.037
CS-SSVS total			-1.68	.050	-.326***
H4					
Step 1	.037	.037			
Constant			5.697	3.432	
Age			.085	.058	.151
Gender			-1.229	1.427	-.089
Step 2	.220	.183*			
Constant			16.362	4.715	
Age			.055	.057	.098
Gender			-1.001	1.392	-.072
CS-SSVS Hedonism			-1.094	.663	-.267
CS-SSVS Stimulation			.299	.537	.081
CS-SSVS Self-Direction			-.114	.629	-.027
CS-SSVS Universalism			.250	.458	.064
CS-SSVS Benevolence			-.553	.560	-.116
CS-SSVS Tradition			.400	.586	.092
CS-SSVS Conformity			-.354	.602	-.089
CS-SSVS Security			.143	.471	.041
CS-SSVS Power			-.090	.132	-.071
CS-SSVS Achievement			-.863	.588	-.200

Note. SSVS = Short Schwartz Value Survey. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
NB: ΔR^2 for H1 and H2 non-significant.
*$p < .05$, **$p < .01$, *** $p < .001$.

As Table 7 shows, all analyses controlled for both age and gender, which explained a small amount of the variance in depressed mood. The importance of values as a whole (H1) explained a very small amount of the variance in depressed mood (0.4%). However the importance of specific values (H2) explained a large amount of the variance in depressed mood (15.4%), with greater depressed mood associated with lesser importance of Benevolence and greater importance of Conformity. This relationship with Conformity and depressed mood was hypothesised, but the relationship with Benevolence and depressed mood was not. In addition, the hypothesised relationships between depressed mood and Security, Tradition, Hedonism, Stimulation and Self-Direction were not statistically significant.

Current satisfaction with values as a whole (H3) explained a moderate amount of the variance in depressed mood (10.7%), with, as hypothesised, greater current satisfaction with values associated with lower depressed mood. Current satisfaction with specific values (H4) explained a greater amount of the variance in depressed mood (18.4%), but no CS-SSVS values were statistically significant. Thus the hypothesised relationships between current satisfaction with the values of Security, Tradition, Conformity, Hedonism, Stimulation and Self-Direction were not apparent.

In summary, regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in depressed mood, while the importance of the 10 specific value types explained a greater amount of the variance.

Lesser importance of Benevolence was associated with greater depressed mood, and greater importance of Conformity was associated with lower depressed mood.

Regression analysis also indicated that total current satisfaction with values as a whole explained a large amount of variance in depressed mood, with greater current satisfaction associated with lower depressed mood. However no individual value types were identified as contributing to this relationship (i.e., no individual values were statistically significant).

2.5.3.3 Between groups analysis.

The results in this section address hypotheses H1 to H4, and involved *t*-tests comparing individuals with depressed mood (DMG: Depressed Mood Group) against individuals without depressed mood (Non-DMG: Non Depressed Mood Group). The DMG and Non-DMG were determined on the basis of scores on the BDI-II. Again, the BDI-II assesses symptoms over the past two weeks, and an adult score of 14 or greater defines ‘likely depression’ or ‘a clinically significant level of depressive symptoms’ (Beck et al., 1996). The DMG were individuals who obtained scores of 14 or greater on the BDI-II. Fifteen of the 103 participants (15%) in Study One had a BDI-II score of 14 or greater. These 15 individuals were designated as the DMG, with the remaining participants designated the Non-DMG; demographic profiles of the DMG, Non-DMG and all Study One participants are presented in Table 8.

Table 8
Demographic Information of the DMG, Non-DMG and All Participants

	N			*%*		
	All	DMG	Non-DMG	All	DMG	Non-DMG
Gender						
Male	45	7	38	44	47	43
Female	58	8	50	56	53	57
English as a first language						
Yes	76	12	64	74	80	73
No	27	3	24	26	20	27
NZ university student						
Yes	33	2	31	32	13	35
No	70	13	57	68	87	65
Psychiatric diagnosis						
Yes	17	4	13	17	27	15
No	86	11	75	83	73	85
Medical illness						
Yes	23	5	18	22	33	20
No	80	10	70	78	67	80

Note. All = All 103 Participants. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group.

Ages of all participants in Study One ranged from 19 to 72 years with a mean age of 35.63 (*SD* = 12.13), ages for the DMG ranged from 26 to 72 years with a mean age of 41.33 (*SD* = 13.25), and ages for the Non-DMG ranged from 19 to 67 with a mean age of 34.66 (*SD* = 11.73). The DMG and Non-DMG were relatively similar

across the six demographic variables, although the DMG were older, had slightly greater rates of psychiatric diagnosis and medical illness, and a lesser proportion were a New Zealand university student.

As a confirmation check that the BDI-II had isolated a group of participants with depressed mood, a series of five independent samples *t*-tests investigated the difference between the DMG and Non-DMG on three related measures: the SHS, SwLS, and HM. Remember, higher scores on the SHS indicate greater global happiness, higher scores on the SwLS indicate greater satisfaction with life, higher HM scale scores indicate a greater perceived quality of general happiness, higher HM percent time happy scores indicate a greater amount of time happy, and higher HM percent time unhappy scores indicate a greater amount of time unhappy. As shown in Table 9, there were big differences in all five *t*-tests.

Table 9
Independent Samples t-tests Between the DMG and Non-DMG Responses on the SHS, SwLS and HM

	M		*SD*		*t*	*p*	*d*
	DMG	Non-DMG	DMG	Non-DMG			
SHS	3.8	4.9	.9	1.0	-3.957	.001***	1.16
SwLS	19.3	24.9	6.6	4.8	-3.693	.001***	.97
HM scale question	6.3	7.5	1.8	1.2	-3.261	.010**	.79
HM % time happy	38.6	59.0	19.6	20.2	-3.515	.002**	1.02
HM % time unhappy	21.1	13.8	14.4	8.6	2.615	.001***	.61

Note. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. SHS = Subjective Happiness Scale. SwLS = Satisfaction with Life Scale. HM = Happiness Measures.
**$p \leq .01$, ***$p < .001$.

As expected, compared to the Non-DMG, the DMG were less globally happy, less satisfied with life, rated a lower perceived quality of general happiness, and reported a lesser amount of time happy and a greater amount of time unhappy. This confirmation check increased confidence that the BDI-II had isolated a group of participants with depressed mood.

To recap the predicted associations, it was expected that participants in the DMG would rate values as being less important (H1) and currently satisfied (H3) on the whole compared to those in the Non-DMG. In addition it was expected that participants in the DMG would rate the importance of (H2), and current satisfaction

with (H4), Security, Conformity and Tradition greater, and the importance of, and current satisfaction with, Hedonism, Stimulation and Self-Direction lower compared to the Non-DMG.

Table 10 presents results of independent samples *t*-tests between the DMG and Non-DMG responses on the SSVS, which address H1 and H2. Although no specific predictions were made regarding Universalism, Benevolence, Achievement and Power for H2, these value types were also tested.

Table 10
Independent Samples t-tests Between the DMG and Non-DMG Responses on the SSVS

	M		*SD*		*t*	*p*	*d*
	DMG	Non-DMG	DMG	Non-DMG			
H1							
SSVS total	45.20	46.90	10.23	9.53	-.631	.529	.17
H2							
Hedonism	4.27	4.05	1.87	1.99	.400	.690	.11
Stimulation	4.13	4.70	2.23	1.51	-1.251	.214	.30
Self-Direction	5.27	5.85	1.75	1.58	-1.302	.196	.35
Universalism	5.60	5.59	1.63	1.80	.018	.985	.01
Benevolence	4.80	5.92	1.08	1.27	-3.219	.002**	.95
Tradition	4.27	3.70	2.05	1.77	1.108	.271	.30
Conformity	5.00	4.20	1.55	1.95	1.495	.138	.45
Security	5.27	4.88	2.05	1.79	.766	.446	.20
Power	2.60	3.07	2.06	2.00	-8.330	.407	.23
Achievement	4.00	4.99	1.96	1.74	-1.992	.049*	.53

Note. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. SSVS = Short Schwartz Value Survey.
*$p < .05$, **$p < .01$.

Table 10 indicates that the importance of values as a whole was not associated with mood group (H1), and the importance of the six theorised Schwartz values were

not associated with mood group (H2). However depressed individuals reported lesser importance of both Achievement and Benevolence.

Table 11 presents the results of independent samples *t*-tests between the DMG and Non-DMG responses on the CS-SSVS, which address H3 and H4. Although no specific predictions were made regarding Universalism, Benevolence, Achievement and Power for H4, these value types were also tested.

Table 11
Independent Samples t-tests Between the DMG and Non-DMG Responses on the CS-SSVS

	M		*SD*		*t*	*p*	*d*
	DMG	Non-DMG	DMG	Non-DMG			
H1							
CS-SSVS total	44.14	53.20	8.12	13.55	-2.423	.017*	.81
H2							
Hedonism	3.86	4.83	1.35	1.70	2.042	.044*	.63
Stimulation	4.21	5.01	1.80	1.85	-1.492	.139	.43
Self-Direction	4.93	5.64	1.81	1.59	-1.521	.132	.42
Universalism	4.79	5.39	1.52	1.78	-1.201	.233	.36
Benevolence	4.93	5.70	1.54	1.41	-1.874	.064	.52
Tradition	5.07	5.40	1.43	1.60	-.729	.468	.22
Conformity	4.79	5.42	1.80	1.70	-1.274	.206	.36
Security	4.14	5.31	2.07	1.89	-2.106	.038*	.59
Power	3.50	5.86	2.68	5.70	-1.513	.134	.53
Achievement	3.93	5.26	2.68	1.56	-3.016	.003**	.61

Note. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. *$p < .05$, **$p < .01$.

Table 11 indicates that depressed individuals, compared to non-depressed individuals, reported lower current satisfaction with values as a whole (H3), and lower current satisfaction with Hedonism and greater satisfaction with Security as hypothesised, but not with greater Stimulation and Self-Direction, and lower Conformity or Tradition (H4). In addition, depressed individuals also reported lower current satisfaction with Achievement.

Following this, multidimensional scaling analysis (MDS) (Davison, 1983) was performed to verify the distinctiveness of the DMG and Non-DMG 10 value types as being similar to Schwartz's values structure. This analysis is shown in Figures 6 and 7[4].

[4] Caution is required in interpreting Figure 6 due to small sample size. Although Glasson (2011) notes that MDS is "robust with smaller sample sizes", Finney (2010) recommends that a sample size of 15 (i.e., the DMG) have between 4 (lower limit) to 11 (upper limit) values, and the SSVS has towards the upper limit with 10.

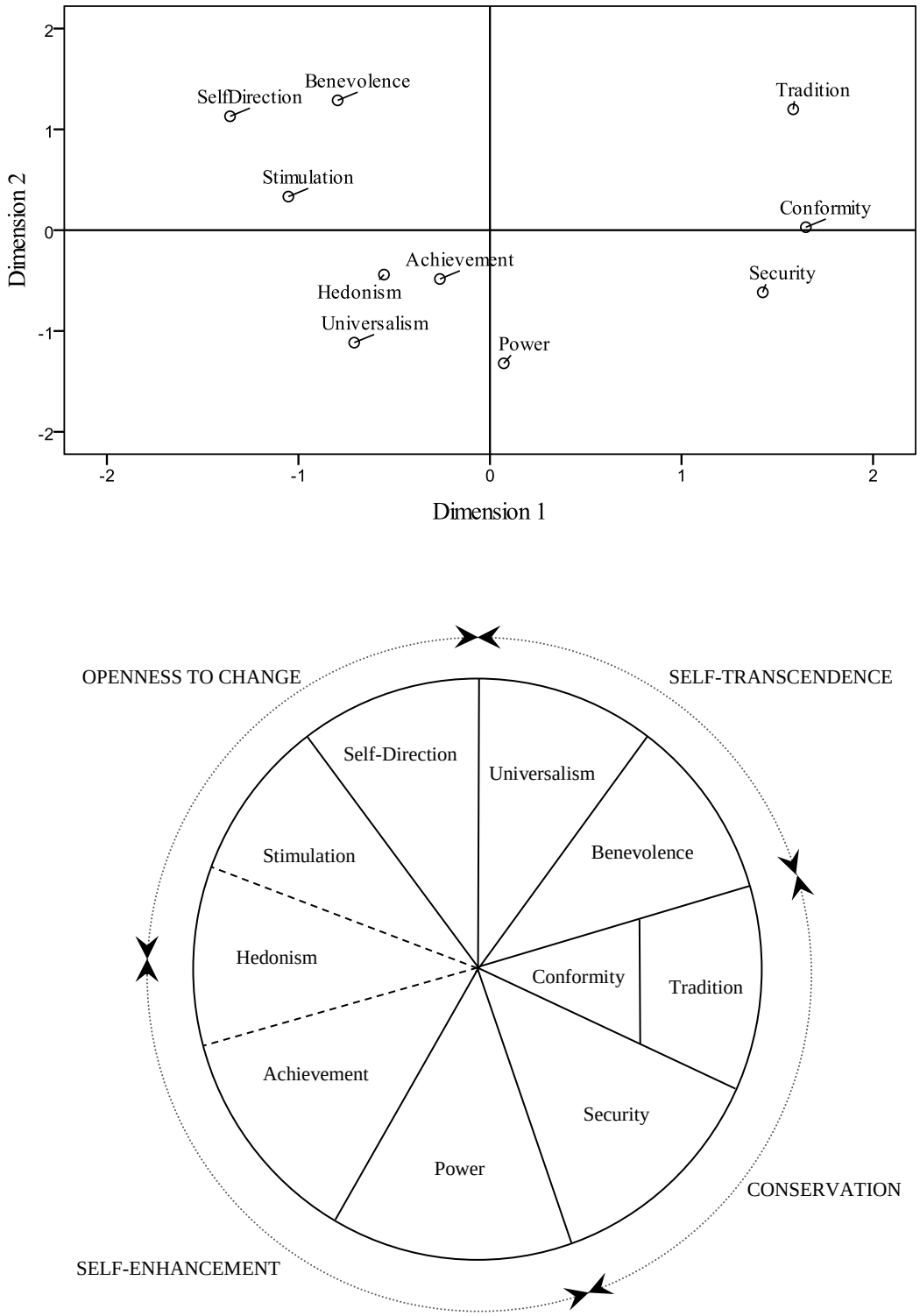


Figure 6. Value structure of the DMG studied with the SSVS: Multidimensional scaling analyses

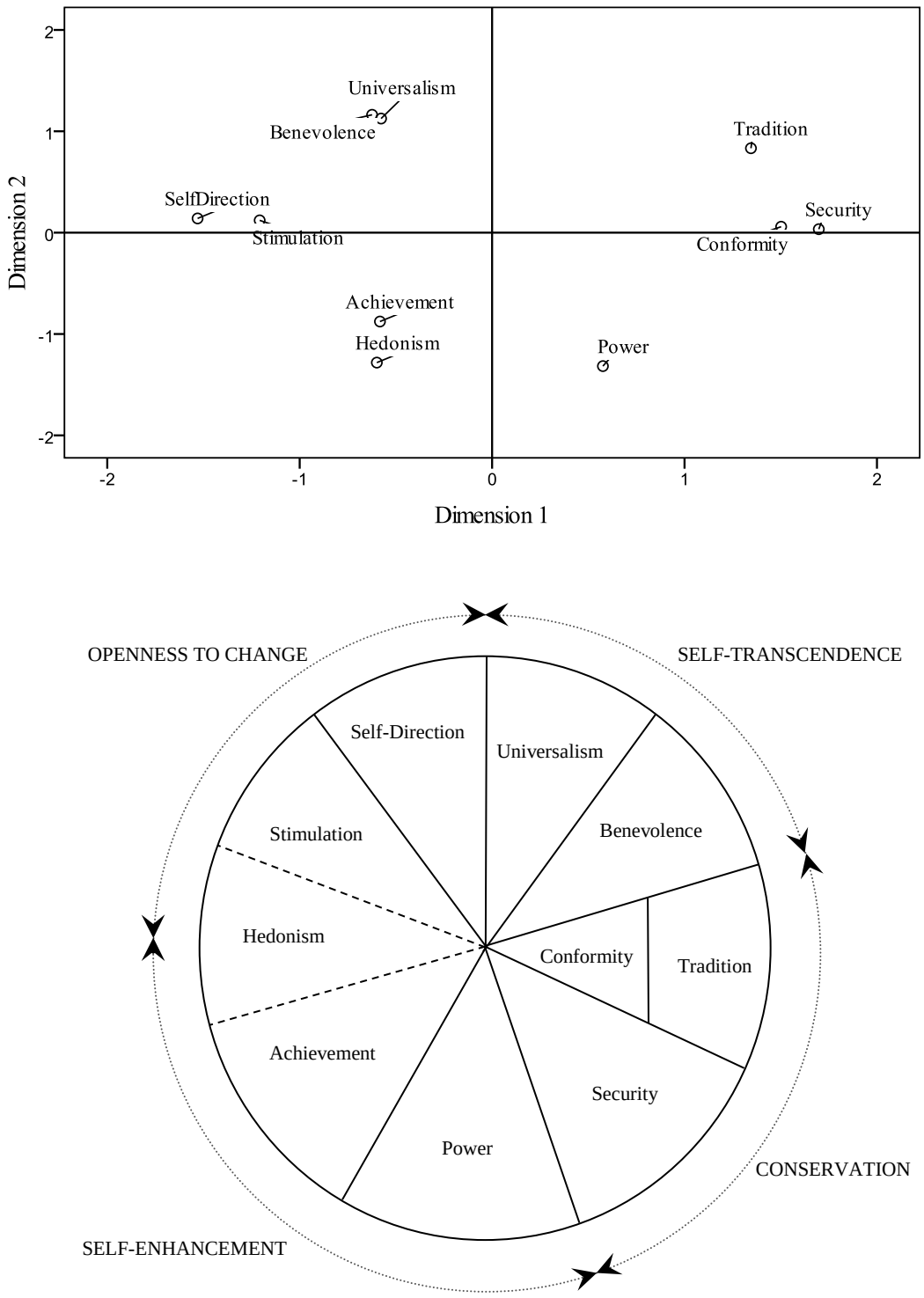


Figure 7. Value structure of the Non-DMG studied with the SSVS: Multidimensional scaling analyses

Figure 6 shows that the value structure of the DMG does not represent Schwartz's model. The DMG analysis yielded mixed approximations compared to the theoretical structure of values and of their circular order in the data. In particular, the value type Universalism was not located near its complementary value types of Self-Direction and Benevolence. In contrast, Figure 7 shows that the value structure of the Non-DMG largely represents Schwartz's model. The Non-DMG analysis yielded good approximations to the theoretical structure of 10 basic values and of their circular order in the data, with no major deviations. Thus MDS analysis identified that the DMG values were not as coherent as those of the Non-DMG.

2.5.4 Subjective wellbeing.

2.5.4.1 Correlation analysis.

The results in this section address hypotheses H5 to H8. Firstly, Pearson Product-moment correlations were calculated to look at how SWB related to total SSVS and CS-SSVS scores, and the 10 SSVS and 10 CS-SSVS value types. There were no statistically significant correlations ($p < .05$) between total SSVS scores and the SwLS total, the HM scale question, or the SHS total. However there were moderate correlations between total CS-SSVS scores and total SwLS scores ($r = .25$, $p < .05$), and between total SHS scores and total CS-SSVS scores ($r = .33$, $p < .01$).

There was no statistically significant correlation ($p < .05$) between total CS-SSVS scores and HM scale scores.

Thus there were no associations between the importance of values as a whole and the three measures of SWB (H5); however, greater current satisfaction with values as a whole (H7) was associated with both greater life satisfaction (SwLS) and greater global happiness (SHS). Table 12 presents Pearson Product-moment correlations between the 10 SSVS and 10 CS-SSVS value types and with the three measures of SWB: the SwLS, HM scale and SHS.

Table 12
Pearson Product-moment Correlations relating the SSVS and CS-SSVS Value Types with the SwLS, HM and SHS

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
SwLS & SSVS	-.251*	.062	.126	.095	.204	.097	-.033	-.014	-.050	.067
HM scale & SSVS	-.003	.258*	.059	.012	.169	.233*	.127	-.048	-.008	-.132
SHS & SSVS	-.061	.265**	.080	.020	.275**	.083	-.013	-.188	-.088	.219*
SwLS & CS-SSVS	.226*	.138	.240*	.055	.386**	.186	.132	.191	.135	.268*
HMscale& CS-SSVS	.140	.192	.042	.042	.323**	-.105	.034	.090	.049	.137
SHS & CS-SSVS	.374**	.312**	.238*	.150	.310**	.107	.161	.231*	.126	.355*

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. SwLS = Satisfaction with Life Scale. SSVS = Short Schwartz Value Survey. HM = Happiness Measures. SHS = Subjective Happiness Scale. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
*$p < .05$, **$p < .01$.

As shown in Table 12, analysis of the importance of the 10 value types (H6) indicated that greater life satisfaction (SwLS) was associated with lesser importance of Hedonism and greater current satisfaction with Hedonism, Self-Direction, Benevolence and Achievement. Greater emotional wellbeing (HM scale) was associated with greater importance of Stimulation and Tradition, and greater current satisfaction with Benevolence. Greater global happiness (SHS) was associated with greater Stimulation, Benevolence and Achievement, and greater current satisfaction with Hedonism, Stimulation, Self-Direction, Benevolence, Security and Achievement.

Next the analysis used two sinusoid curves to look at the pattern of associations of the SSVS and CS-SSVS values in relation to the three measures of wellbeing: the SwLS, HM scale, and SHS. Figure 8 shows the expected pattern of associations according to the theorising for the relationship between SWB and the 10 Schwartz values ("Schwartz theory": H6 - see section 1.5.3), and the SSVS correlation results from Table 12: the associations between the 10 SSVS values and the SwLS, HM scale, and SHS scores.

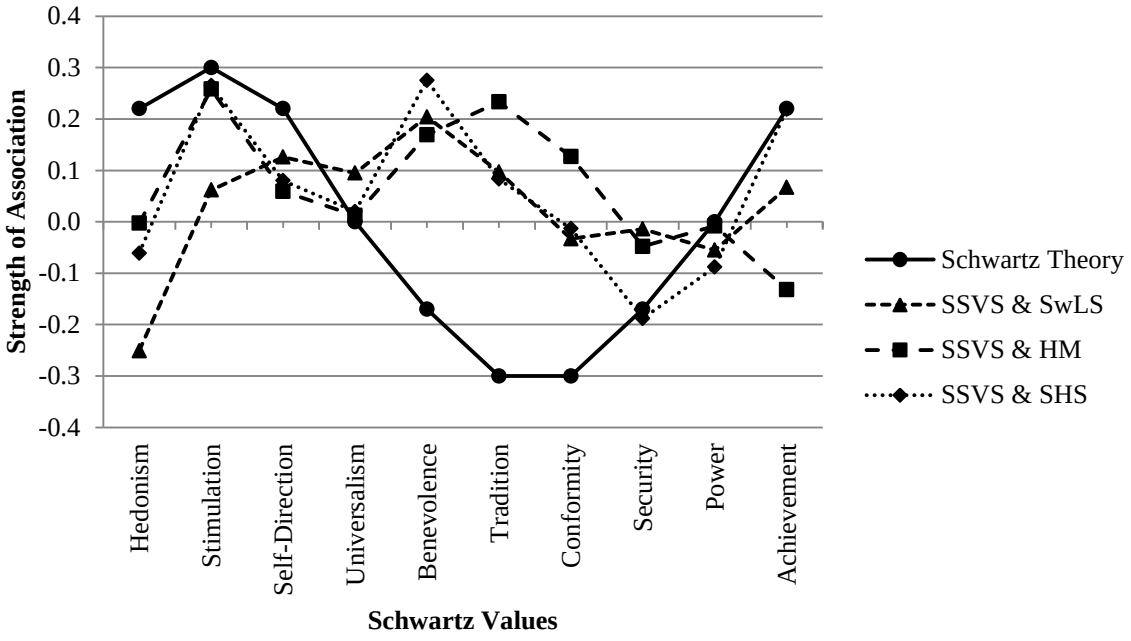


Figure 8. Sinusoid curve of value associations between SwLS, HM scale and SHS scores, and SSVS values

Figure 9 shows the expected pattern of associations according to the theorising for the relationship between SWB and the 10 Schwartz values (H8), and the CS-SSVS correlation results from Table 12: the associations between the 10 CS-SSVS values and the SwLS, HM scale, and SHS scores.

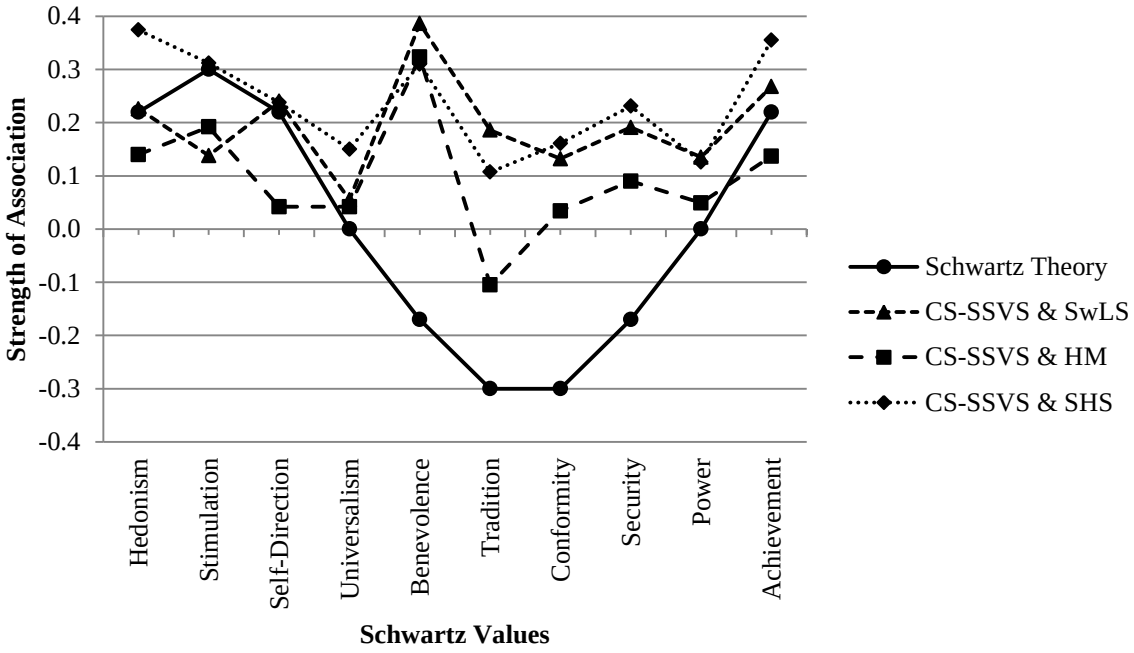


Figure 9. Sinusoid curve of value associations between SwLS, HM scale and SHS scores, and CS-SSVS values

The results indicate that the relationships between the SSVS value types and SWB (Figure 8) provide a mixed picture. Although the direction of associations for Stimulation, Self-Direction, and Security are in the expected direction and in line with H6, the direction of associations for Hedonism, Tradition, and Conformity are not. Thus, the pattern of associations according to theorising from Schwartz's model is apparent for Stimulation and Self-Direction, but not for Hedonism. It is also apparent for Security, but not for Conformity or Tradition. In addition, the pattern is also apparent for Universalism and Power, but not for Benevolence or Achievement.

The relationships between the CS-SSVS value types and SWB (Figure 9) also provides a mixed picture. Although the direction of associations for Hedonism, Stimulation and Self-Direction are in the expected direction and in line with H8, the

direction of associations for Tradition, Conformity and Security are not. Thus, the pattern of associations according to theorising from Schwartz's model is apparent for Hedonism, Stimulation and Self-Direction, but not for Tradition, Conformity and Security. In addition, the pattern is also apparent for Power, Achievement and Universalism, but not for Benevolence.

In summary, there were no associations between the importance of values as a whole and the three measures of SWB (H5), however greater current satisfaction with values as a whole (H7) was associated with both greater life satisfaction and greater global happiness. Analysis of the importance of the 10 value types (H6) indicated that greater life satisfaction was associated with lesser importance of Hedonism, that greater emotional wellbeing was associated with greater importance of Stimulation and Tradition, and that greater global happiness was associated with greater Stimulation, Benevolence and Achievement. Analysis of the current satisfaction with the 10 value types (H8) also indicated that greater life satisfaction was associated with greater current satisfaction with Hedonism, Self-Direction, Benevolence and Achievement; that greater emotional wellbeing was associated with greater current satisfaction with Benevolence; and that greater global happiness was associated with greater current satisfaction with Hedonism, Stimulation, Self-Direction, Benevolence, Security and Achievement. In addition, the relationships between the SSVS and CS-SSVS value types and SWB provided a mixed picture with neither the SSVS nor CS-SSVS profile aligning with the theorised pattern of associations from Schwartz's model.

2.5.4.2 Regression analysis.

This section presents results from hierarchical multiple regression analysis which addressed hypotheses H5 to H8: the relationship between SWB (SwLS, HM scale, SHS), and the importance of, and satisfaction with, values. Table 13 shows results of four hierarchical multiple regressions: predicting life satisfaction (SwLS) from the importance of values (H5), the importance of specific values (H6), the current satisfaction with values (H7), and the current satisfaction with specific values (H8). Tables 14 and 15 show similar analysis to that of the SwLS, but for the HM scale (Table 14) and SHS (Table 15).

Table 13

Hierarchical Multiple Regression Analyses Predicting Satisfaction with Life (SwLS) from the Importance of Values (H5), the Importance of Specific Values (H6), the Current Satisfaction with Values (H7), and the Current Satisfaction with Specific Values (H8).

Variable	R^2	ΔR^2	B	SE B	β
H5					
Step 1	.009	.009			
Constant			26.268	2.958	
Age			-.044	.050	-.097
Gender			-.398	1.221	-.036
Step 2	.009	.000			
Constant			25.645	4.585	
Age			-.042	.051	-.093
Gender			-.387	1.229	-.035
SSVS total			.012	.066	.020
H6					
Step 1	.008	.008			
Constant			26.136	3.056	
Age			-.042	.051	-.092
Gender			-.359	1.245	-.032
Step 2	.181	.173			
Constant			20.607	4.996	
Age			-.040	.057	-.087
Gender			-.270	1.256	-.024
SSVS Hedonism			-1.065	.350	-.382***
SSVS Stimulation			.014	.531	.004
SSVS Self-Direction			.287	.526	.082
SSVS Universalism			.031	.394	.010
SSVS Benevolence			.617	.599	.147
SSVS Tradition			.621	.456	.194
SSVS Conformity			-.755	.546	-.259
SSVS Security			.473	.481	.152
SSVS Power			.055	.406	.020

SSVS Achievement			.527	.439	.173
H7					
Step 1	.008	.008			
Constant			25.756	2.982	
Age			-.040	.051	-.090
Gender			-.193	1.244	-.018
Step 2	.073	.065			
Constant			21.010	3.528	
Age			-.047	.049	-.105
Gender			-.645	1.225	-.059
CS-SSVS total			.107	.045	.258**
H8					
Step 1	.007	.007			
Constant			25.411	3.037	
Age			-.037	.051	
Gender			-.068	1.262	
Step 2	.258	.251*			
Constant			13.641	4.102	
Age			-.032	.049	-.072
Gender			-.492	1.191	-.045
CS-SSVS Hedonism			-.123	.569	-.035
CS-SSVS Stimulation			-.026	.444	-.008
CS-SSVS Self-Direction			.616	.548	.172
CS-SSVS Universalism			-.726	.388	-.233
CS-SSVS Benevolence			1.624	.479	.439***
CS-SSVS Tradition			.707	.525	.198
CS-SSVS Conformity			-.538	.509	-.168
CS-SSVS Security			-.269	.435	-.092
CS-SSVS Power			.066	.105	.071
			.825	.502	.216

Note. SSVS = Short Schwartz Value Survey. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
NB: ΔR^2 for H5, H6 and H7 non-significant.
**$p < .01$, *** $p < .001$.

Table 14

Hierarchical Multiple Regression Analyses Predicting Emotional Wellbeing (HM) from the Importance of Values (H5), the Importance of Specific Values (H6), the Current Satisfaction with Values (H7), and the Current Satisfaction with Specific Values (H8).

Variable	R^2	ΔR^2	B	SE B	β
H5					
Step 1	.007	.007			
Constant			7.832	.716	
Age			-.010	.012	-.087
Gender			-.120	.293	-.043
Step 2	.031	.023			
Constant			6.598	1.086	
Age			-.006	.012	-.054
Gender			-.113	.291	-.040
SSVS total			.023	.016	.115
H6					
Step 1	.006	.006			
Constant			7.775	.737	
Age			-.009	.012	-.080
Gender			-.103	.298	-.037
Step 2	.141	.135			
Constant			6.331	1.192	
Age			-.001	.013	-.010
Gender			.009	.304	.003
SSVS Hedonism			-.049	.084	-.071
SSVS Stimulation			.257	.122	.298*
SSVS Self-Direction			-.114	.131	-.128
SSVS Universalism			-.044	.096	-.054
SSVS Benevolence			.077	.145	.072
SSVS Tradition			.119	.101	.152
SSVS Conformity			.081	.134	.109
SSVS Security			-.093	.113	-.122
SSVS Power			-.023	.093	-.034
SSVS Achievement			.038	.111	.050

H7					
Step 1	.006	.006			
Constant			7.746	.723	
Age			-.009	.012	-.080
Gender			-.081	.298	-.029
Step 2	.013	.007			
Constant			7.332	.885	
Age			-.009	.012	-.082
Gender			-.119	.303	-.043
CS-SSVS total			.009	.011	.086
H8					
Step 1	.005	.005			
Constant			7.612	.730	
Age			-.008	.012	-.070
Gender			-.034	.301	-.012
Step 2	.191	.186			
Constant			6.491	1.022	
Age			-.004	.012	-.037
Gender			-.016	.295	-.006
CS-SSVS Hedonism			.069	.137	.083
CS-SSVS Stimulation			.188	.111	.253
CS-SSVS Self-Direction			-.160	.134	-.187
CS-SSVS Universalism			-.067	.095	-.085
CS-SSVS Benevolence			.347	.116	.360**
CS-SSVS Tradition			-.171	.125	-.180
CS-SSVS Conformity			-.056	.125	-.066
CS-SSVS Security			.028	.097	.039
CS-SSVS Power			-.007	.027	-.029
CS-SSVS Achievement			.030	.121	.034

Note. SSVS = Short Schwartz Value Survey. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
NB: ΔR^2 for H5, H6, H7 and H8 non-significant.
**p* < .05, ***p* < .01.

Table 15

Hierarchical Multiple Regression Analyses Predicting Global Happiness (SHS) from the Importance of Values (H5), the Importance of Specific Values (H6), the Current Satisfaction with Values (H7), and the Current Satisfaction with Specific Values (H8).

Variable	R^2	ΔR^2	B	SE B	β
H5					
Step 1	.012	.012			
Constant			5.160	.551	
Age			-.010	.009	-.133
Gender			-.017	.225	-.008
Step 2	.016	.004			
Constant			4.787	.832	
Age			-.009	.009	-.100
Gender			-.012	.226	-.006
SSVS total			.007	.012	.062
H6					
Step 1	.009	.009			
Constant			5.006	.563	
Age			-.008	.009	-.091
Gender			.029	.227	.013
Step 2	.227	.218*			
Constant			4.032	.851	
Age			.002	.010	.022
Gender			.094	.221	.044
SSVS Hedonism			-.064	.061	-.121
SSVS Stimulation			.173	.091	.269
SSVS Self-Direction			-.173	.092	-.266
SSVS Universalism			-.050	.068	-.084
SSVS Benevolence			.178	.106	.222
SSVS Tradition			.043	.073	.072
SSVS Conformity			-.015	.096	-.027
SSVS Security			-.088	.082	-.152
SSVS Power			-.076	.067	-.145
SSVS Achievement			.163	.079	.280*

H7					
Step 1	.011	.011			
Constant			5.009	.554	
Age			-.009	.009	-.102
Gender			.008	.228	.004
Step 2	.118	.108**			
Constant			3.890	.639	
Age			-.009	.009	-.105
Gender			-.106	.219	-.050
CS-SSVS total			.027	.008	.332***
H8					
Step 1	.010	.010			
Constant			5.086	.565	
Age			-.009	.009	-.101
Gender			.012	.232	.006
Step 2	.225	.214*			
Constant			3.305	.765	
Age			-.005	.009	-.057
Gender			-.015	.223	-.007
CS-SSVS Hedonism			.143	.103	.226
CS-SSVS Stimulation			.068	.084	.120
CS-SSVS Self-Direction			-.049	.102	-.074
CS-SSVS Universalism			-.048	.072	-.080
CS-SSVS Benevolence			.161	.087	.221
CS-SSVS Tradition			-.036	.094	-.051
CS-SSVS Conformity			-.053	.095	-.082
CS-SSVS Security			.048	.073	.087
CS-SSVS Power			.003	.020	.013
CS-SSVS Achievement			.103	.092	.155

Note. SSVS = Short Schwartz Value Survey. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
NB: ΔR^2 for H5 non-significant.
*$p < .05$, *** $p < .001$.

As Tables 13, 14 and 15 show, analyses controlled for both age and gender, which in all cases explained a small amount of the variance in SWB. The importance

of values as a whole (H5) explained no amount of the variance (0%) in life satisfaction, a small amount of variance (2.3%) in emotional wellbeing, and a very small amount of variance (0.4%) in global happiness.

The importance of specific values (H6) explained a larger amount of the variance (16.4%) in life satisfaction, with greater importance of Hedonism associated with lower life satisfaction. This relationship with Hedonism and SWB is opposite to that hypothesised; it was hypothesised that greater importance of Hedonism would be associated with greater life satisfaction. Moreover, life satisfaction was not associated with Stimulation, Self-Direction, Security, Tradition, or Conformity, as hypothesised.

The importance of specific values (H6) also explained a large amount of the variance (13.5%) in emotional wellbeing, with greater importance of Stimulation associated with greater emotional wellbeing. This relationship between greater importance of Stimulation and greater SWB was hypothesised; however emotional wellbeing was not associated with Hedonism, Self-Direction, Security, Tradition, or Conformity, as hypothesised.

Lastly, the importance of specific values (H6) explained a large amount of the variance (21.8%) in global happiness, with greater importance of Achievement associated with greater global happiness. This relationship between greater importance of Achievement and greater SWB was hypothesised; however global happiness was not associated with Hedonism, Self-Direction, Security, Tradition, or Conformity, as hypothesised.

Current satisfaction with values as a whole (H7) explained a small amount of the variance (6.5%) in life satisfaction, a very small amount of variance (0.7%) in

emotional wellbeing, and a moderate amount of variance (10.8%) in global happiness. As hypothesised, greater current satisfaction with values was associated with greater life satisfaction and global happiness, however emotional wellbeing was not associated with current satisfaction with values.

Current satisfaction with specific values (H8) explained a large amount of the variance in life satisfaction (25.1%), with greater importance of Benevolence associated with greater life satisfaction. However, life satisfaction was not associated with Hedonism, Stimulation, Self-Direction, Security, Tradition, or Conformity, as hypothesised.

The current satisfaction with specific values (H8) also explained a large amount of the variance (18.6%) in emotional wellbeing, with greater current satisfaction with Benevolence associated with greater emotional wellbeing. However, emotional wellbeing was not associated with Hedonism, Stimulation, Self-Direction, Security, Tradition, or Conformity as hypothesised.

Lastly, current satisfaction with specific values (H8) explained a large amount of the variance (21.4%) in global happiness. However, global happiness was not associated with Hedonism, Stimulation, Self-Direction, Security, Tradition, or Conformity, as hypothesised.

In summary, regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in SWB (H5); however the importance of the 10 specific value types explained a greater amount of the variance (H6). Greater life satisfaction was associated with lesser importance of Hedonism,

greater emotional wellbeing was associated with greater importance of Stimulation, and greater global happiness was associated with greater importance of Achievement. Regression analysis also indicated that current satisfaction with values as a whole explained a small to moderate amount of the variance in SWB (H7), with greater current satisfaction with values associated with greater life satisfaction and global happiness, but not emotional wellbeing. Current satisfaction with specific values (H8) explained a large amount of the variance in life satisfaction, with greater life satisfaction and emotional wellbeing associated with greater current satisfaction with Benevolence.

2.5.4.3 Between groups analysis.

The results in this section address hypotheses H5 to H8 and involve *t*-tests comparing individuals with high SWB (SWBG: Subjective Wellbeing Group) against individuals without high SWB (Non-SWBG: Non Subjective Wellbeing Group). The SWBG was determined on the basis of scores on two measures of SWB: the SwLS and HM. Again, SWB consists of a cognitive and an affective component; the SwLS measures the cognitive component and the HM scale question measures the affective component of SWB.

With regard to the SwLS, adult scores from 26 to 30 define individuals ‘satisfied’ with life, and scores from 30 to 35 define individuals ‘extremely satisfied’ with life. Remember that reported SwLS mean scores for adults are between 23.0 and 24.9 (i.e., “slightly satisfied”). Forty two of the 103 participants in Study One had a

SwLS score of 26 or greater. With regard to the HM scale, an adult score of eight denotes a person ‘Pretty happy (spirits high, feeling good)’, nine denotes ‘Very happy (feeling really good, elated)’, and 10 denotes ‘Extremely happy (feeling ecstatic, joyous, fantastic)’. Remember that Fordyce (1988) reported a mean scale score of 6.92 (*SD* = 1.75) for young adults. Fifty two of the 103 participants in Study One had a HM scale score of eight or greater. In combination, these scores for the SwLS and HM scale question resulted in 32 of the 103 participants (31%) having both a SwLS score of 26 or greater, and a HM scale score of eight or greater. In other words, these 32 individuals were ‘satisfied’ with life (or better) and ‘pretty happy - spirits high, feeling good’ (or better). These 32 individuals formed the SWBG; demographic profiles of the SWBG, Non-SWBG and all Study One participants are presented in Table 16.

Table 16
Demographic Information of the SWBG, Non-SWBG and All Participants

	N			*%*		
	All	SWBG	Non-SWBG	All	SWBG	Non-SWBG
Gender						
Male	45	16	29	44	50	41
Female	58	16	42	56	50	59
English as a first language						
Yes	76	28	48	74	87	68
No	27	4	23	26	13	32
Current New Zealand university student						
Yes	33	12	21	32	37	30
No	70	20	50	68	63	70
Psychiatric diagnosis						
Yes	17	6	11	17	19	15
No	86	26	60	83	81	85
Medical illness						
Yes	23	4	19	22	13	27
No	80	28	52	78	87	73

Note. All = All 103 Participants. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group.

Ages of all participants in Study One ranged from 19 to 72 years with a mean age of 35.63 (*SD* = 12.13), the ages for the SWBG ranged from 19 to 59 years with a mean age of 34.28 (*SD* = 11.33), and ages for the Non-SWBG ranged from 20 to 72 with a mean age of 36.24 (*SD* = 12.51).

The SWBG and Non-SWBG were relatively similar across the six demographic variables, although a greater proportion of the SWBG group had English as their first language, and a lesser proportion reported a medical illness.

As a confirmation check that the SwLS and HM scale question had isolated a group of participants with high SWB, a series of four independent samples *t*-tests investigated the differences between the SWBG and Non-SWBG on three related measures: the BDI-II, SHS and HM. Remember, the BDI-II is a measure of depressed mood, the SHS is a measure of global subjective happiness, higher HM percent time happy percentages indicate a greater amount of time happy, and higher HM percent time unhappy percentages indicate a greater amount of time unhappy. As shown in Table 17, there were big differences in all four independent samples *t*-tests.

Table 17
Independent Samples t-tests Between the SWBG and Non-SWBG Responses on the BDI-II, SHS and HM

	M		*SD*		*t*	*p*	*d*
	SWBG	Non-SWBG	SWBG	Non-SWBG			
BDI-II	4.2	8.1	4.5	7.7	-2.641	.010**	.61
SHS	5.5	4.4	.8	1.0	5.373	.001***	1.20
HM % time happy	69.6	49.7	17.7	19.9	-4.832	.001***	1.37
HM % time unhappy	9.9	17.2	6.8	10.3	3.644	.001***	.84

Note. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. BDI-II = Beck Depression Inventory-II. SHS = Subjective Happiness Scale. HM = Happiness Measures.
**$p \leq .01$, ***$p < .001$.

As expected, compared to the Non-SWBG, the SWBG reported less depressed mood, greater global subjective happiness, and a greater amount of time happy and a lesser amount of time unhappy. This confirmation check increased confidence that the SwLS and HM scale question had isolated a group of participants with high SWB.

To recap the predicted associations, it was expected that participants in the SWBG would rate values as being more important (H5) and currently satisfied (H7) on the whole compared to those in the Non-SWBG. In addition, it was expected that participants in the SWBG would rate the importance of (H6), and current satisfaction with (H8), Hedonism, Stimulation and Self-Direction greater, and the importance of,

and current satisfaction with, Security, Conformity and Tradition lower, compared to the Non-SWBG.

Table 18 presents results of independent samples *t*-tests between the SWBG and Non-SWBG responses on the SSVS, which address H5 and H6. Although no specific predictions were made regarding Universalism, Benevolence, Achievement and Power for H6, these value types were also tested.

Table 18
Independent Samples t-tests Between the SWBG and Non-SWBG Responses on the SSVS

	M		*SD*		*t*	*p*	*d*
	SWBG	Non-SWBG	SWBG	Non-SWBG			
H5							
SSVS total	47.81	46.13	9.76	9.55	.823	.412	.17
H6							
Hedonism	3.53	4.32	1.97	1.94	-1.911	.059	.40
Stimulation	4.97	4.46	1.40	1.72	1.451	.150	.32
Self-Direction	5.97	5.68	1.36	1.72	.849	.398	.19
Universalism	5.91	5.45	1.77	1.77	1.209	.229	.26
Benevolence	6.19	5.56	1.28	1.27	2.298	.024*	.49
Tradition	3.91	3.73	1.63	1.90	.447	.656	.10
Conformity	4.31	4.32	1.89	1.94	-.028	.978	.01
Security	4.81	4.99	1.65	1.91	-.444	.658	.10
Power	3.03	2.99	2.09	1.99	.105	.916	.02
Achievement	5.35	4.62	2.01	1.67	1.922	.058	.39

Note. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. SSVS = Short Schwartz Value Survey.
*$p < .05$.

Table 18 indicates that both the importance of values as a whole (H5) and the importance of the six theorised Schwartz values (H6) were not associated with SWB. However individuals in the SWBG reported greater importance of Benevolence.

Table 19 presents results of independent samples *t*-tests between the SWBG and Non-SWBG responses on the CS-SSVS, which address H7 and H8. Although no specific predictions were made regarding Universalism, Benevolence, Achievement and Power for H8, these value types were also tested.

Table 19
Independent Samples t-tests Between the SWBG and Non-SWBG Responses on the CS-SSVS

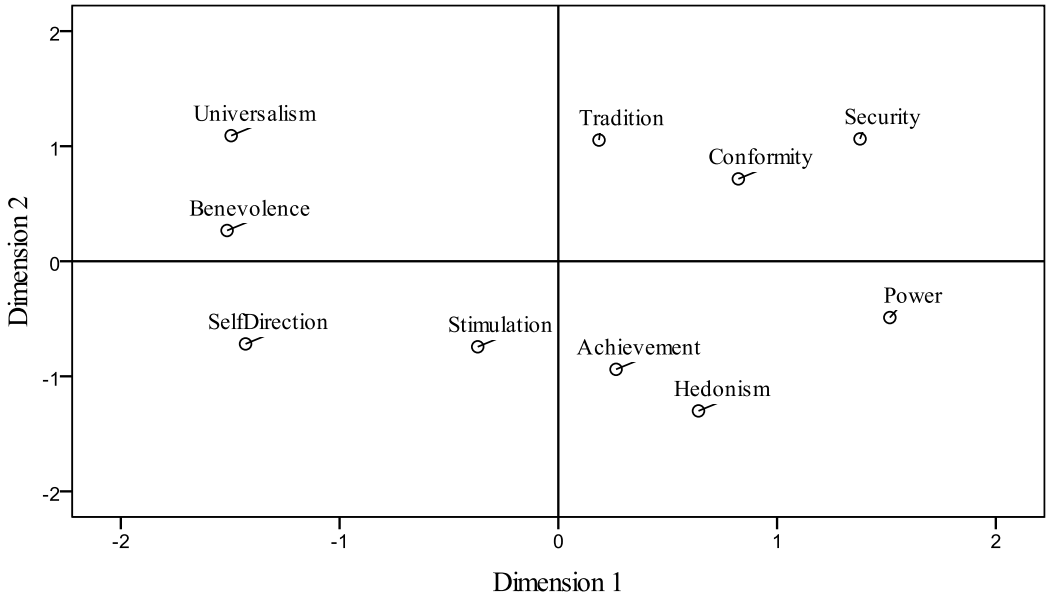
	M		*SD*		*t*	*p*	*d*
	SWBG	Non-SWBG	SWBG	Non-SWBG			
H7							
CS-SSVS total	53.17	51.40	14.07	13.00	.603	.548	.13
H8							
Hedonism	5.04	4.56	1.57	1.72	1.276	.205	.29
Stimulation	5.39	4.70	1.64	1.92	1.678	.097	.39
Self-Direction	5.82	5.43	1.56	1.66	1.073	.286	.24
Universalism	5.32	5.30	1.98	1.67	.054	.957	.01
Benevolence	6.11	5.39	1.13	1.52	2.274	.025*	.54
Tradition	5.29	5.39	1.56	1.60	-.281	.779	.06
Conformity	5.57	5.23	1.53	1.80	.890	.376	.20
Security	5.54	4.99	1.64	2.05	1.263	.210	.30
Power	5.43	5.56	1.87	6.34	-.105	.916	.03
Achievement	5.57	4.87	1.32	1.66	1.994	.049*	.47

Note. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. CS-SSVS = Current Satisfaction-Short Schwartz Value Survey.
*$p < .05$.

Table 19 indicates that both current satisfaction with values as a whole (H7) and current satisfaction with the six theorised Schwartz values (H8) were not associated

with SWB. However the SWBG reported greater current satisfaction with Achievement and Benevolence.

Following this, multidimensional scaling analysis (MDS) was performed to verify the distinctiveness of the SWBG and Non-SWBG 10 value types as being similar to Schwartz's values structure. This analysis is shown in Figures 10 and 11.



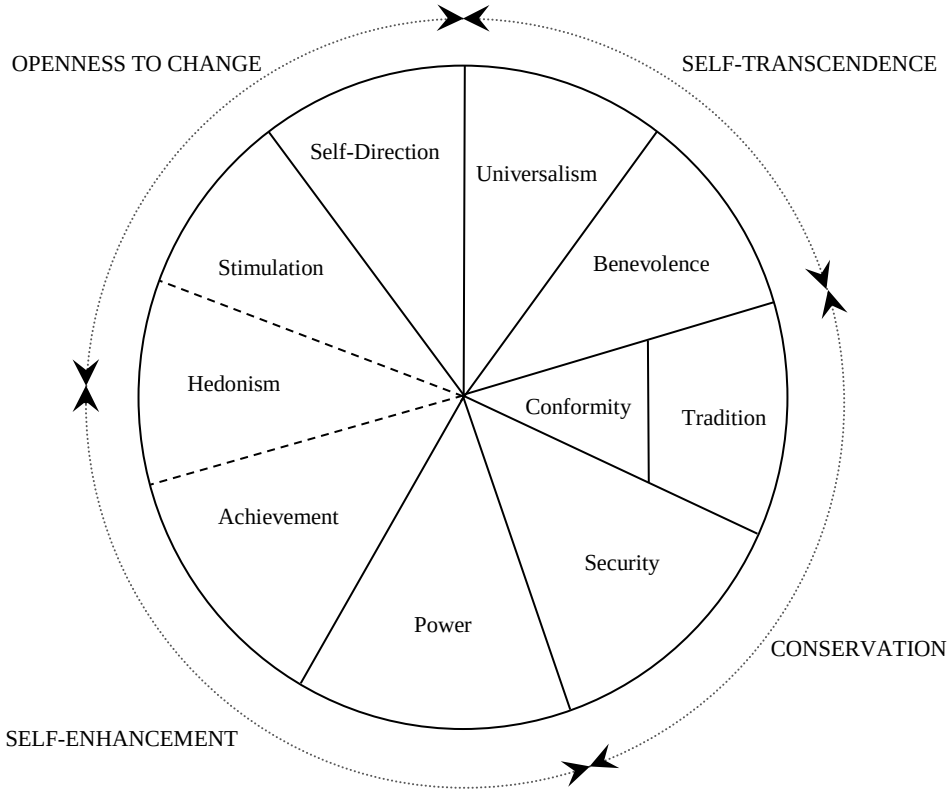
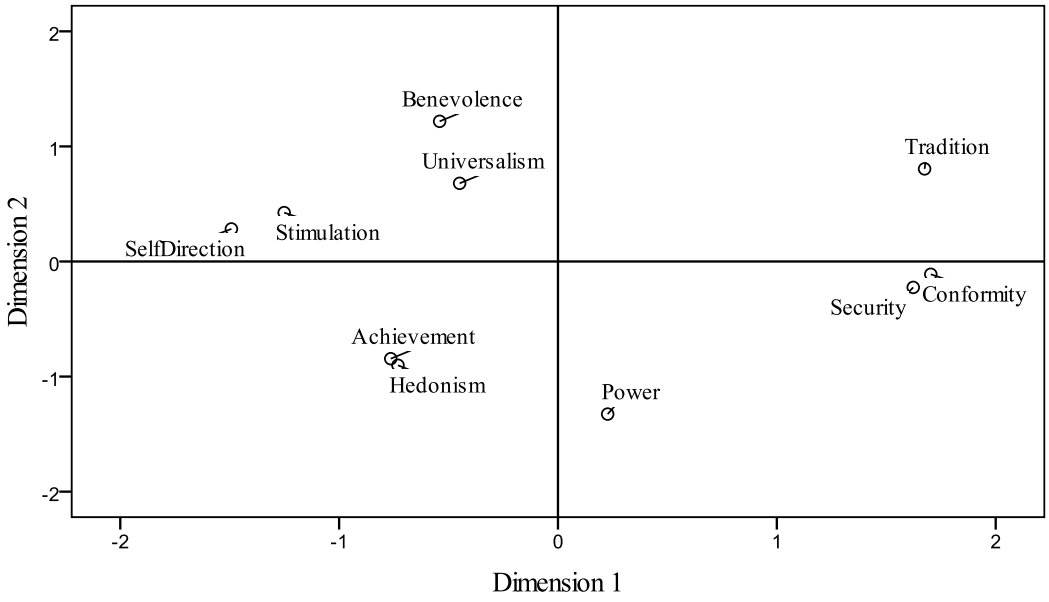


Figure 10. Value structure of the SWBG studied with the SSVS: Multidimensional scaling analyses



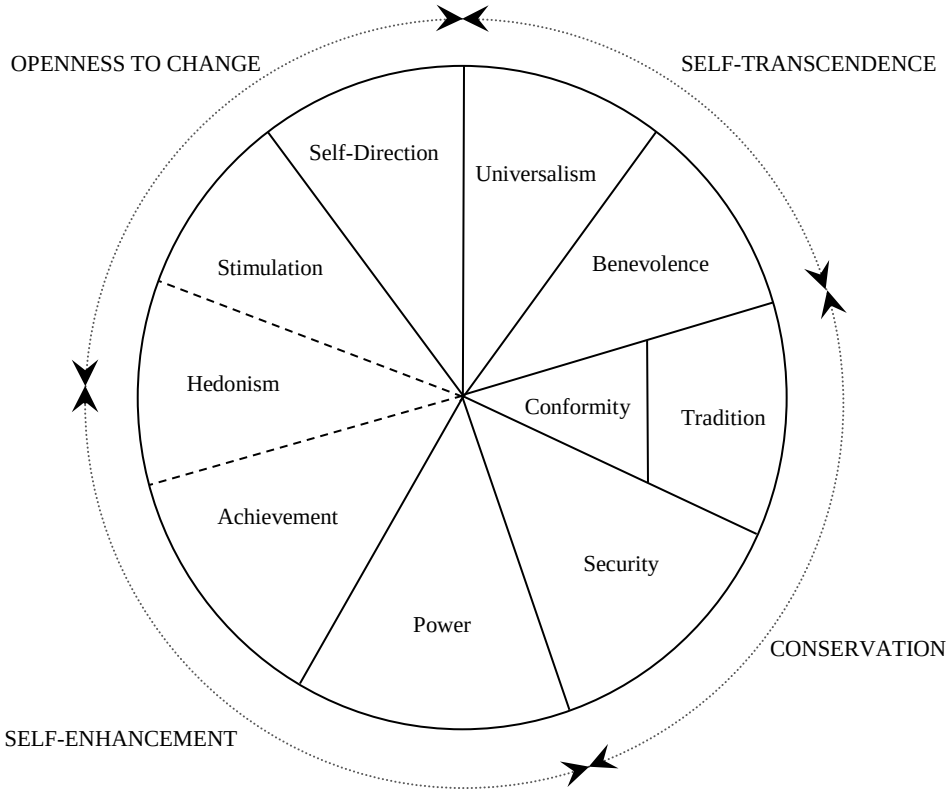


Figure 11. Value structure of the Non-SWBG studied with the SSVS: Multidimensional scaling analyses

Figure 10 shows that the value structure of the SWBG does not represent Schwartz's model. The SWBG analysis yielded mixed approximations compared to the theoretical structure of values and of their circular order in the data. In particular, the value type Achievement was not located near its complementary value type of Power, and Universalism was not located near Self-Direction. Figure 11 shows that the value structure of the Non-SWBG also does not represent Schwartz's model, yielding mixed approximations. In particular, the value types of Stimulation and Self-Direction were swapped, and many values were not located near their complementary value types (e.g., the large distances between Benevolence and Tradition, and between Security and Power).

2.6 Results summary

2.6.1 Overview.

Schwartz's model was apparent in the present data, verifying the distinctiveness of the 10 value types according to Schwartz's theory with all three measures; with the SSVS slightly more similar. In addition, all three measures were reliable and largely inter-correlated. Analysis on the six demographic variables indicated that age, gender, language, or student status were not associated with values, depressed mood or SWB. However, as would be expected, participants with a psychiatric diagnosis reported

greater depressed mood and lower emotional wellbeing, and participants with a medical illness reported lower life satisfaction.

When analysing the links between values and depressed mood, correlation analysis indicated that there were no associations between the importance of values as a whole and depressed mood; however greater current satisfaction with values as a whole was associated with lower depressed mood. Analysis of the importance of the 10 value types indicated that greater depressed mood was associated with lesser importance of Achievement and Benevolence. Analysis of the current satisfaction with the 10 value types indicated that greater depressed mood was associated with lower current satisfaction with Benevolence, Achievement, Conformity, Hedonism, Stimulation, and Self-Direction. In addition, patterns of the relationship between the SSVS value types and depressed mood were in the expected direction and closely mirrored theorising from Schwartz's model. However, the relationship between the CS-SSVS value types and depressed mood provided a mixed picture.

Regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in depressed mood, while the importance of the 10 specific value types explained a greater amount of the variance. Lesser importance of the value type Benevolence was associated with more depressed mood, and greater importance of Conformity was associated with less depressed mood. The total current satisfaction with values as a whole explained a large amount of variance in depressed mood, with greater current satisfaction with values associated with less depressed mood. The current satisfaction with the 10 value types

also explained a large amount of variance in depressed mood; however no individual value types were identified as contributing to this relationship.

When comparing individuals with depressed mood against individuals without depressed mood, a greater proportion of depressed individuals were female, had English as their first language, had a psychiatric diagnosis or medical illness, and a lesser proportion were a New Zealand university student. Analysis using *t*-tests indicated that the importance of values as a whole and the six theorised Schwartz values were not associated with mood group. However individuals with depressed mood reported lesser importance of both Achievement and Benevolence. Depressed individuals also reported lower current satisfaction with values as a whole, and with Hedonism, Security and Achievement.

When analysing the links between values and SWB, correlation analysis indicated that there were no associations between the importance of values as a whole and the three measures of SWB, however greater current satisfaction with values as a whole was associated with both greater life satisfaction and greater global happiness. Analysis of the importance of the 10 value types indicated that greater life satisfaction was associated with lesser importance of Hedonism, that greater emotional wellbeing was associated with greater importance of Stimulation and Tradition, and that greater global happiness was associated with greater Stimulation, Benevolence and Achievement. Analysis of the current satisfaction with the 10 value types indicated that greater life satisfaction was associated with greater current satisfaction with Hedonism, Self-Direction, Benevolence and Achievement, that greater emotional wellbeing was associated with greater current satisfaction with Benevolence, and that

greater global happiness was associated with greater Hedonism, Stimulation, Self-Direction, Benevolence, Security and Achievement. In addition, patterns of the relationships between the SSVS and CS-SSVS value types and SWB provided a mixed picture and did not mirror theorising from Schwartz's model.

Regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in SWB; however the importance of the 10 specific value types explained a greater amount of the variance. Greater life satisfaction was associated with lesser importance of Hedonism, greater emotional wellbeing was associated with greater importance of Stimulation, and greater global happiness was associated with greater importance of Achievement. Regression analysis also indicated that current satisfaction with values as a whole explained a small to moderate amount of the variance in SWB, with greater current satisfaction with values associated with greater life satisfaction and global happiness, but not emotional wellbeing. Current satisfaction with specific values explained a large amount of the variance in life satisfaction, with greater life satisfaction and emotional wellbeing associated with greater current satisfaction with Benevolence.

When comparing individuals with high SWB against individuals without high SWB, a greater proportion of individuals with high SWB were male, had English as their first language, were a current New Zealand university student, and reported higher rates of psychiatric diagnoses, and a lesser proportion had a medical illness. Analysis using *t*-tests indicated that the importance of values as a whole was not associated with wellbeing group; however greater importance of Benevolence was associated with individuals with greater SWB. Greater current satisfaction with

values as a whole was not associated with wellbeing group, however greater current satisfaction with Achievement and Benevolence was associated with individuals with greater SWB.

2.6.2 Themes.

Taking the results together, two main themes emerged between values and depressed mood. Firstly, the importance of values as a whole, when assessed with correlations, regressions, and *t*-tests, was not associated with depressed mood. Instead, current satisfaction with values as a whole was associated with depressed mood. Correlation and regression analysis both indicated that greater current satisfaction with values as a whole was associated with less depressed mood, and *t*-tests indicated that participants in the DMG reported lower current satisfaction with values as a whole.

Secondly, the overall pattern highlights the importance of Achievement and Benevolence in relation to depressed mood. Correlation analysis indicated that greater depressed mood was associated with both lesser importance of, and current satisfaction with, Achievement and Benevolence. Regression analysis indicated that greater depressed mood was associated with lesser importance of Benevolence. Analysis using *t*-tests indicated that participants in the DMG reported less importance of both Achievement and Benevolence, and less current satisfaction with Achievement. Relating these findings to those hypothesised, neither Achievement nor

Benevolence is congruent with those hypothesised; Benevolence and Achievement were not hypothesised to relate to depressed mood[5].

Regarding values and SWB, similar themes emerged. The importance of values as a whole, when assessed with correlations, regressions, and *t*-tests, was not associated with SWB. Instead, current satisfaction with values as a whole was associated with SWB. Correlation and regression analysis both indicated that greater current satisfaction with values was associated with greater life satisfaction and global happiness.

Secondly, Achievement and Benevolence are important in relation to SWB. Correlation analysis indicated that greater global happiness was associated with greater importance of, and current satisfaction with, both Achievement and Benevolence. Regression analysis indicated that greater global happiness was associated with greater importance of Achievement, and greater current satisfaction with Benevolence was associated with both greater life satisfaction and emotional wellbeing. Analysis using *t*-tests indicated that participants in the SWBG reported greater importance of Benevolence, and greater current satisfaction with Achievement and Benevolence.

Thirdly, values nearer to Openness-to-Change are related to SWB. Correlation and regression analysis indicated that lesser importance of Hedonism was associated

[5] Although the analysis indicated additional results (e.g., that greater current satisfaction with Hedonism, Stimulation and Self-Direction was associated with greater depressed mood, that greater importance of Conformity was associated with greater depressed mood, that DMG participants reported lower current satisfaction with Hedonism and Security, or that the DMG's values were not as coherent as the Non-DMG's), these did not highlight the same theme as Achievement and Benevolence did.

with greater life satisfaction, and correlation analysis also indicated that greater current satisfaction with Hedonism was associated with greater life satisfaction and global happiness. Correlation and regression analysis indicated that greater importance of Stimulation was associated with greater emotional wellbeing, and correlation analysis indicated that greater importance of Stimulation was associated with greater global happiness. Greater current satisfaction with Stimulation was also associated with greater global happiness. In addition, correlation analysis indicated that greater current satisfaction of Self-Direction was associated with greater life satisfaction and global happiness[6].

Additionally, these results from Study One should be viewed in light of the high proportion of students and participants with English with a second language, and slightly lower reliability coefficients than in the reported literature. In particular, the small sample and group sizes alone mean that caution is required in interpreting these results due to the possibility of Type 1 error; observed differences may be a result of poor specificity due to the low sample size.

[6] Although the analysis indicated additional results (e.g., greater current satisfaction with Security was associated with greater global happiness, or that greater importance of Tradition was associated with greater emotional wellbeing), these did not highlight the same theme as other values.

CHAPTER 3: STUDY TWO

3.1 Introduction

Study One revealed links between people's values, and their depressed mood and SWB. This third chapter outlines the second study of this thesis which replicated aspects of Study One and extended the investigation into the links between people's depressed mood and SWB by investigating the degree to which people know their values and live in alignment with their values. In investigating these relationships, participants completed four measures: one of personal values, one of depressed mood, and two of SWB. This third chapter is similar in structure to the previous chapter and has four main sections. The first section outlines the hypotheses investigated, the second outlines the method, and the third reports the results. The chapter concludes with a summary of the results of this study.

3.2 Aims

The first aim was to further investigate the relationships between the importance of values, and depressed mood and SWB. Results from Study One relating to the importance of values were mixed and unexpected with regard to the literature, whereas the results relating to current satisfaction with values were more conclusive. Thus, the objective was to replicate findings from Study One related to the importance of values with a larger and more representative sample and thus reduce

the risk of Type 1 error, and to utilise more specific measures to further describe different associations between values, and depressed mood and SWB. The second aim was to extend the scope and investigate previously unexplored relationships between depressed mood and SWB, and with individuals' knowledge of their values, the extent to which they live in alignment with their values, and also their placements along Schwartz's higher order bipolar continua (Self-Enhancement vs. Self-Transcendence, and Openness-to-Change vs. Conservation). The overarching goal was again to increase understanding of the relationships between personal values, and mood and wellbeing.

3.3 Hypotheses

Six hypotheses (H9 to H14) concerned the relationship between values and depressed mood, and six (H15 to H20) the relationship between values and SWB. Based on theorising from Schwartz's model and results from Study One, it was expected that greater depressed mood would be associated with lesser importance of values as a whole, and with lesser importance of Benevolence and Achievement. In line with theorising from Schwartz's model, it was expected that greater depressed mood would be associated with greater Self-Transcendence and Conservation, and lower Self-Enhancement and Openness-to-Change. It was also expected that greater depressed mood would be associated with lower knowledge of values and lower living in alignment with values.

Conversely, it was expected that greater SWB would be associated with greater importance of values as a whole, and with greater importance of Stimulation, Achievement, Benevolence and lesser importance of Hedonism. In line with theorising from Schwartz's model, it was expected that greater SWB would be associated with greater Self-Enhancement and Openness-to-Change, and that lower SWB would be associated with greater Self-Transcendence and Conservation. It was also expected that greater SWB would be associated with greater knowledge of values and greater living in alignment with values. These hypotheses are outlined in Table 20.

Table 20
Hypotheses Tested in Study Two

Hypothesis	Hypothesis Label	Actual Hypothesis
H9	The importance of values as a whole and depressed mood.	Depressed mood would be negatively related with importance of values as a whole.
H10	The importance of specific values and depressed mood.	Depressed mood would be negatively related with importance ratings of Benevolence and Achievement.
H11	The importance of Self-Enhancement and Self-Transcendence, and depressed mood.	Depressed mood would be positively related with importance ratings of Self-Transcendence, and negatively with importance ratings of Self-Enhancement.
H12	The importance of Openness-to-Change and Conservation, and depressed mood.	Depressed mood would be positively related with importance ratings of Conservation, and negatively with importance ratings of Openness-to-Change.
H13	Knowledge of values and depressed mood.	Depressed mood would be negatively related with ratings of knowledge of values.
H14	Living in alignment with values and depressed mood.	Depressed mood would be negatively related with ratings of living in alignment with values.
H15	The importance of values as a whole and SWB.	SWB would be positively related with importance of values as a whole.
H16	The importance of specific values and SWB.	SWB would be positively related with importance ratings with Stimulation, Achievement, and Benevolence, and negatively related with importance ratings of Hedonism.

H17	The importance of Self-Enhancement and Self-Transcendence, and SWB.	SWB would be positively related with importance ratings of Self-Enhancement, and negatively with importance ratings of Self-Transcendence.
H18	The importance of Openness-to-Change and Conservation, and depressed mood.	SWB would be positively related with importance ratings of Openness-to-Change, and negatively with importance ratings of Conservation.
H19	Knowledge of values and SWB.	SWB would be positively related with ratings of knowledge of values.
H20	Living in alignment with values and SWB.	SWB would be positively related with ratings of living in alignment with values.

3.4 Method

3.4.1 Design.

A battery of psychometric instruments was selected to measure the variables of interest via an internet survey. These instruments comprised the primary source of data for this study (labelled The Values Study - see Appendix B). This battery consisted of four standardised self-report questionnaires, and five questions regarding personal values (values questions).

The design of Study Two was influenced by the results and informal feedback from Study One. Thus, some measures in Study Two were different to those used in Study One. The Centre for Epidemiological Studies Depression Scale (CES-DS) (Radloff, 1977) replaced the BDI-II, and the SVS, SSVS, CS-SSVS, and SHS were

not used in Study Two. These changes were motivated by participant feedback, research practicalities (such as cost or questionnaire length), the use of more specific measures, or to build further on the results from Study One. For example, many noted that the SVS was difficult to answer, with one participant describing the SVS as "mentally draining". Other researchers have subsequently acknowledged that the SVS demands a high level of abstract thought (Koivula & Verkasalo, 2006). With regard to research practicalities, some tests were not available to use online due to copyright or required supervision for ethical reasons. The suicide screening questions two and nine of the BDI-II needed present monitoring. With regard to cost, the BDI-II was too costly for larger samples (NZ$5 per participant). The 40 item PVQ was chosen in preference to the 10 item SSVS because others have commented that neither the SVS nor the SSVS are well suited for online surveys (e.g., Littrell, 2008), and there was little difference between all three measures in Study One. These changes in measures were considered to make Study Two more robust, and allowed an increased sample size. The selected measures were considered suitable to further investigate both the breadth and depth of the relationships between values, and depressed mood and SWB.

Conducting Study Two as an internet study also had many advantages. Most notably, internet studies are less expensive, quicker to execute, have improved data accuracy, and higher response rates (Reips, 2002). An Auckland University of Technology survey (Bell et al., 2007) reported that 81% of New Zealanders use the Internet, with usage rising slightly with wealth and urban location, and falling slightly with age. International usage data in similar western countries mirrors these findings

(e.g., Reips, 2006). In addition, research suggests no significant differences in the psychometric properties of psychological measures completed online, compared to paper-based versions (Riva, Teruzzi, & Anolli, 2003). For example, Lewis, Watson and White (2009) reported that measures completed via the internet yield equivalent scores to measures completed in person, whilst also allowing for more diverse demographic samples. The use of web-based research methods in psychology is also increasing (Reips, 2006). Moreover, Arnett (2008) argued that psychological research focuses too narrowly on Americans, resulting in an incomplete understanding that ignores cultural context and does not adequately represent humanity.

3.4.2 Participants.

Participants for this study were an international convenience sample. Participants were invited to participate via e-mail newsletters, postings on various websites, and snowballing through friends and family (in person, phone, e-mail). Four hundred and ninety two participants volunteered and completed Study Two. These participants were individuals who were over 18 years of age, and for whom English was their first language. Twenty-eight individuals indicated that they were either under 18 or that English was not their first language; these 28 individuals were thanked for their time and excluded.

3.4.2.1 Demographics.

Participants were asked to provide information regarding five variables of interest: their gender, age, country, psychiatric diagnosis, and medication usage. This information is displayed in Table 21.

Table 21
Demographic Information for All 492 Participants

	N	*%*
Gender		
Male	143	29
Female	349	71
Country		
New Zealand	274	56
United Kingdom	110	22
Canada	42	9
United States of America	32	6
Australia	30	6
Other	4	1
Psychiatric diagnosis		
Yes	89	18
No	403	82
Medication use		
Yes	107	22
No	385	78

Participants' ages ranged from 18 to 75 years, with a mean age of 33.32 (*SD* = 12.31). In addition, 362 of the 492 participants (74%) provided their e-mail address in order to be entered into a prize draw for one of three US$100 Amazon.com vouchers for participating. Participants who supplied their e-mail address were also offered an

e-mail summary of the results once the research was complete. Further description of the collection of this demographic and additional information is included below in section 3.4.4.

3.4.3 Materials.

Some standardised measures included in Study Two had also been used in Study One. These included the PVQ, SwLS, and HM (see section 2.4.3). The new measure and questions included in Study Two were the Centre for Epidemiological Studies Depression Scale (CES-DS) (Radloff, 1977), which is a measure of depressed mood, and five questions regarding different aspects of values (importance of values, knowledge of values, living in alignment with values, and one question for each of the two Schwartz continua). All of the measures used were suitable for the intended participants of this research in that they met age, language and user qualification requirements. The measures were also freely available or available with permission. Taken as a whole, these measures focused on values, depressed mood, and SWB. The new measure and values questions included in Study Two are presented in Appendix B and reviewed in detail below.

3.4.3.1 Values' measures.

3.4.3.1.1 Values questions.

Five questions were designed to further assess different aspects of personal values. The first question asked participants to rate on a scale from 0 to 10 how much they knew what their values were (knowledge of values). The second question asked participants to rate on a scale from 0 to 10 how much they were living their life in alignment with their values (living in alignment with values). The third question asked participants to rate on a scale from 0 to 10 how important values were (importance of values). The fourth question asked participants to mark on a 10 point unnumbered continuum where they saw themselves, ranging from 'Open-to-Change' at one end, to 'Conservative' at the other (Openness-to-Change vs. Conservation continuum). Each point was then assigned a value, ranging from (1) indicating 'Open-to-Change', to (10) indicating 'Conservative'. The fifth question was similar to the fourth, and asked participants where they saw themselves ranging from (1) 'Interested-in-Self' at one end, to (10) 'Interested-in-Others' at the other (Self-Enhancement vs. Self-Transcendence continuum).

Given the findings from Study One, the importance of values question allowed further direct investigation of the importance of values in addition to the current values measure, the PVQ, which also assesses the importance of values. Ratings of knowledge of values and living in alignment with values allowed for measurements of aspects of values considered important, yet not quantifiable by currently developed measures. The inclusion of Schwartz's continua placement questions allowed the investigation of Schwartz's two higher order bi-polar dimensions.

3.4.3.2 Mood measure.

3.4.3.2.1 Centre for Epidemiological Studies Depression Scale.

The Centre for Epidemiological Studies Depression Scale (CES-DS) (Radloff, 1977) is a short 20 item measure that assesses the frequency and severity of depressive symptomatology over the past week in a general population. The CES-DS measures "current level of depressive symptomatology, with emphasis on the affective component, depressed mood" (Radloff, 1977, p. 285). Participants rate how frequently each of 20 depressive symptoms has been experienced on a 4 point scale, ranging from (0) 'rarely or none of the time – less than 1 day', to (1) 'some or a little of the time – 1 to 2 days', to (2) 'occasionally or a moderate amount of the time – 3 to 4 days', to (3) 'most or all of the time – 5 to 7 days'. The 20 items represent all major components of depressive symptomatology including depressed mood, guilt and worthlessness, helplessness and hopelessness, loss of appetite, sleep disturbance, and psychomotor retardation. Four of the 20 items are positively phrased ('I enjoyed life', 'I was happy', 'I felt hopeful about the future', 'I felt I was just as good as other people') and are reverse scored (items 4, 8, 12, & 16). Total scores range from 0 (indicating no depressive symptoms) to 60 (indicating more depressive symptomatology). In adults, a score of 16 or greater is used to define "likely depression" (Radloff, 1977, p. 394), or "a clinically significant level of depressive symptoms" (Roberts, 1980, p. 130), with a score of 30 or greater reflecting severe depression (Bergin & Garfield, 2003). The psychometric properties of the CES-DS have been thoroughly investigated in both clinical and non-clinical samples over the

past 30 years. Various authors (e.g., Roberts, 1980; Spielberger et al., 2003) cite the CES-DS as a widely used depression measure (see Ensel, 1986, for an overview of the CES-DS). The average reliability of the CES-DS is reported as .85 (Radloff, 1977); in Study Two the CES-DS Cronbach Alpha was .92.

In addition, the four positively phrased items in the CES-DS (i.e., items 4, 8, 12, and 16) measure positive affect (Joseph, 2007) and thus comprise a positive affect subscale. As Thorson and Powell commented, "this subcomponent of the CES-DS has been shown to be a valid instrument for measuring positive affect, and it has been taken as interchangeable with the concept of happiness" which "could be treated as additive measures of a single 'happiness' scale" (1993, p. 590).

The PVQ, SwLS, HM, CES-DS and additional values questions were important in providing a comprehensive assessment of the domains of interest. In combination they provided more depth and focus in the assessment of personal values, depressed mood, and SWB. In Study Two the Cronbach Alpha of the SwLS was .89, and the Cronbach Alpha of the PVQ was .67, with individual value reliabilities ranging from .25 to .44.

3.4.4 Procedure.

The Values Study was advertised through e-mail, e-newsletters, and website postings. Regarding e-mail and e-newsletters, participants were identified via snowballing through friends and family, and through various e-mail lists. These

included e-mail lists and newsletters from a range of university departments (e.g., computing departments, psychology departments, biology departments), government departments (e.g., Ministry of Research, Science, and Technology, Ministry of Education), private companies listed through the Yellow Pages website (e.g., plumbers, car dealers), and charitable organisations (e.g., Depression.org, Red Cross). Regarding website postings, notices of this study were posted on various notable websites (e.g., www.livingbipolar.co.nz, www.lifeline.org.nz, www.positivepsychology.org.nz) requesting participants. In selecting lists and websites the rationale was to capture a wide and representative sample.

The Values Study was hosted at www.surveymonkey.com. In order to reach The Values Study, participants either clicked on the link www.valuesstudy.com which arrived via an e-mail or e-newsletter, or were asked to type www.valuesstudy.com into a web browser. They were then redirected to The Values Study hosted at Survey Monkey. When participants were presented with the questionnaires, they firstly read a short information sheet which described the study and eligibility requirements (see Appendix B). To be eligible to participate, participants needed to be 18 years of age or older, and have English as their first language. Participants then entered information for five demographic variables of interest. After demographic questions were completed, the measures in Study Two were randomly presented. At the completion of the study, participants were thanked and their data was submitted. They were also encouraged to forward the link www.valuesstudy.com to others they thought might wish to participate.

The raw data from the questionnaires was downloaded from Survey Monkey in Microsoft Excel spreadsheet format, and analysis of the data was conducted using SPSS 17 (Field, 2005; Miller et al., 2009; Pallant, 2007). As the online survey required an answer for each question in order to proceed, data accuracy was 100%, making cross checking for accuracy unnecessary. Five-hundred-and-seventeen participants completed in total, however five percent of the completed data was not used (n = 25 questionnaires). This included firstly participants who completed the survey in less than 5 minutes (n = 12), and secondly participants who scored erratically (n = 13). For example, pilot testing on 10 participants indicated that this battery would take between 15 to 20 minutes to complete, but 12 participants completed in less than five minutes. The 13 who scored erratically indicated that they were highly depressed on a depression measure, yet very happy on a positive affect measure. These 25 participants may have been interested in the content of the study questions rather than in answering the questions, or in entering the draw for vouchers. This meant 492 completed participant data were used for analysis. The Values Study ran for 49 days, beginning on the 18 December 2007 and ending on 4 February 2008. Again, no data is available on how many people were reached via the recruitment e-mails, e-newsletters or website postings, so response rates cannot be calculated.

3.5 Results

This section presents analyses of the data from Study Two. Firstly, a preliminary analysis compared the five demographic variables for all participants

(age, gender, country, psychiatric diagnosis, and medication usage) against the 12 main outcome variables provided by the study measures (importance of values question, knowledge of values, living in alignment with values, Self-Enhancement/Self-Transcendence continuum, Openness-to-Change/Conservation continuum, total PVQ score, total CES-DS score, CES-DS four item happiness score, total SwLS score, HM scale score, HM percent happy score, and HM percent unhappy score). The first six of these outcome variables relate to values, and the latter six to mood and wellbeing. The Self-Enhancement/Self-Transcendence and Openness-to-Change/Conservation continua questions were also related (correlations) to the 10 PVQ value types to confirm that these questions assessed Schwartz's two higher-order bipolar continua. Following this, analysis focused on the two main research questions: the relationship between values and depressed mood, and between values and SWB. Similarly to Study One, each of these two sections begins with within groups analysis (correlations, sinusoid curves, and regression analyses) followed by between groups analysis (*t*-tests, multidimensional scaling).

3.5.1 Demographic variables and main outcome variables.

Pearson Product-moment correlations were calculated to look at how age related to the 12 main outcome variables. Age positively related with the importance of values question ($r = .22$, $p < .01$), knowledge of values ($r = .21$, $p < .01$), living in alignment with values ($r = .12$, $p < .01$), the CES-DS-4IH ($r = .12$, $p < .01$), and negatively related with the CES-DS total ($r = -.17$, $p < .01$).

Next, 12 one-way between-groups analysis of variance (ANOVA) tests were conducted to explore the impact of participant country (New Zealand, United Kingdom, United States of America, Canada, Australia, Other) on the 12 main outcome variables. There was a statistically significant difference at the $p < .05$ level in importance of values question scores for country: F (5, 486) = 2.957, p = .012, d = .03. Post-hoc comparisons using the Tukey HSD test indicated that the mean score on the importance of values question for participants in the United Kingdom (M = 8.33, SD = 1.40) was significantly different from participants in New Zealand (M = 8.76, SD = 1.29) and the United States of America (M = 9.09, SD = 0.89), although differences in mean scores between these countries was quite small. Nonetheless, participants in the United Kingdom rated the importance of values lower compared to participants from New Zealand and the United States of America.

A series of 36 (3×12) independent samples t-tests was then performed to investigate if there were statistically significant effects of each of the remaining three demographic variables (gender, psychiatric diagnosis, and medication use) on the 12 main outcome variables. Values were rated as less important by males (M = 8.36, SD = 1.43) compared to females (M = 8.76, SD = 1.25), t(490) = 3.104, p = .002, d = .30; males reported lower knowledge of values (M = 7.72, SD = 1.47) compared to females (M = 8.18, SD = 1.22), t(490) = 3.594, p = .001, d = .34; and males reported less depressed mood on the CES-DS (M = 10.54, SD = 9.33) compared to females (M = 12.54, SD = 10.35), t(490) = 2.007, p = .045, d = .20. In addition, males reported greater Self-Enhancement (M = 5.66, SD = 1.85) and females greater Self-

Transcendence (M = 6.16, SD = 1.68), $t(490) = -2.896$, $p = .004$, $d = .28$, on the Self-Enhancement/Self-Transcendence continuum.

As shown in Table 22, there were statistically significant differences for participants with a psychiatric diagnosis (n = 89) in ratings of six of the 12 main outcome variables; all six variables relating to mood and wellbeing.

Table 22
Independent Samples t-tests Between Participants With and Without a Psychiatric Diagnosis, and Responses on the 12 Main Outcome Variables

	M		*SD*		*t*	*p*	*d*
	With PD	Without PD	With PD	Without PD			
VImport	8.88	8.59	1.05	1.37	1.856	.064	.24
VKnow	7.94	8.07	1.52	1.27	- .833	.405	.09
VLive	7.24	7.54	1.91	1.49	-1.653	.099	.20
VOPvsCO	3.76	4.02	2.00	2.06	-1.077	.282	.13
VSEvsST	5.79	6.07	1.66	1.76	-1.383	.167	.16
PVQtot	116.30	117.58	16.39	19.04	- .586	.558	.07
CES-DStot	16.25	11.01	12.92	9.11	4.511	.001***	.47
CES-DS-4IH	8.37	9.27	3.37	2.79	-2.677	.008**	.29
SwLStot	21.62	23.61	7.97	6.64	-2.470	.014*	.27
HM scale	6.34	7.15	2.21	1.68	-3.892	.001***	.41
HM%hap	49.55	59.24	25.47	23.56	-3.460	.001***	.39
HM%unhap	23.60	15.37	20.32	13.77	4.633	.001***	.47

Note. PD = Psychiatric diagnosis. VImport = Importance of values. VKnow = Knowledge of values. VLive = Living in alignment with values. VOPvsCO = Openness-to-Change/Conservation continuum. VSEvsST = Self-Enhancement/Self-Transcendence continuum. PVQtot = Portrait Values Questionnaire total. CES-DStot = Centre for Epidemiological Studies Depression Scale total. CES-DS-4IH = Centre for Epidemiological Studies Depression Scale four item happiness. SwLStot = Satisfaction with Life Scale total. HM = Happiness Measures. HM%hap = Happiness Measures percent happy. HM%unhap = Happiness Measures percent unhappy.
*$p < .05$, **$p < .01$, ***$p < .001$.

As shown in Table 23, there were statistically significant differences for participants taking medications (n = 107) in ratings of five of the 12 main outcome variables; five variables relating to mood and wellbeing.

Table 23

Independent Samples t-tests Between Participants Currently Taking Medication and Those Not Currently Taking Medication, and Responses on the 12 Main Outcome Variables

	M		*SD*		*t*	*p*	*d*
	Meds	Without Meds	Meds	Without Meds			
VImport	8.81	8.59	1.16	1.36	1.517	.130	.17
VKnow	8.08	8.04	1.44	1.28	.314	.753	.03
VLive	7.40	7.51	1.80	1.51	-.621	.535	.07
VOPvsCO	4.11	3.94	2.08	2.04	.779	.436	.08
VSEvsST	5.91	6.05	1.63	1.78	-.747	.455	.08
PVQtot	115.09	117.97	18.39	18.61	-1.420	.156	.16
CES-DStot	14.63	11.22	11.96	9.40	3.114	.002**	.32
CES-DS-4IH	8.38	9.30	3.15	2.76	-2.957	.003**	.31
SwLStot	22.73	23.40	7.36	6.81	-.882	.378	.09
HM scale	6.48	7.15	2.09	1.70	-3.441	.001***	.35
HM%hap	50.37	59.47	24.43	23.78	-3.480	.001***	.38
HM%unhap	20.65	15.81	17.87	14.58	2.890	.004**	.30

Note. Meds = Medications. VImport = Importance of values. VKnow = Knowledge of values. VLive = Living in alignment with values. VOPvsCO = Openness-to-Change/Conservation continuum. VSEvsOT = Self-Enhancement/Self-Transcendence continuum. PVQtot = Portrait Values Questionnaire total. CES-DStot = Centre for Epidemiological Studies Depression Scale total. CES-DS-4IH = Centre for Epidemiological Studies Depression Scale four item happiness. SwLStot = Satisfaction with Life Scale total. HM = Happiness Measures. HM%hap = Happiness Measures percent happy. HM%unhap = Happiness Measures percent unhappy. $^{**}p < .01$, $^{***}p < .001$.

Preceding analysis on depressed mood and SWB, the Schwartz continua questions were compared against the PVQ value types to ensure that the continua questions assessed Schwartz's two higher order bipolar continua. Pearson Product-moment correlations were calculated to look at how the Self-Enhancement/Self-Transcendence and Openness-to-Change/Conservation continua questions related to the 10 PVQ value types. Remember, on these 10-point scale questions, (1) indicated 'Interested-in-Self' and (10) 'Interested-in-Others', and (1) indicated 'Openness-to-Change' and (10) 'Conservation', respectively.

As shown in Table 24, and as would be expected, Open-to-Change was most strongly associated with Stimulation, Conservation with Conformity, Self-Enhancement with Power, and Self-Transcendence with Benevolence.

Table 24
Pearson Product-moment Correlations Relating Schwartz Continua Scores to PVQ Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
VOPvsCO & PVQ	-.169**	-.267**	-.247**	-.160**	-.073	.172**	.232**	.120**	-.059	-.169**
VSEvsST & PVQ	-.148**	-.012	-.086	.198**	.332**	.282**	.226**	-.002	-.231**	-.197**

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. VSEvsST = Self-Enhancement/Self-Transcendence continuum. PVQ = Portrait Values Questionnaire.VOPvsCO = Openness-to-Change/Conservation continuum.
**$p < .01$.

Next the value structure of the PVQ was investigated with multidimensional scaling analysis to verify the distinctiveness of the 10 value types in the data as being similar to Schwartz's values structure. Figure 12 confirms the value structure of Study Two participants, assessed with the PVQ, as largely representing Schwartz's model.

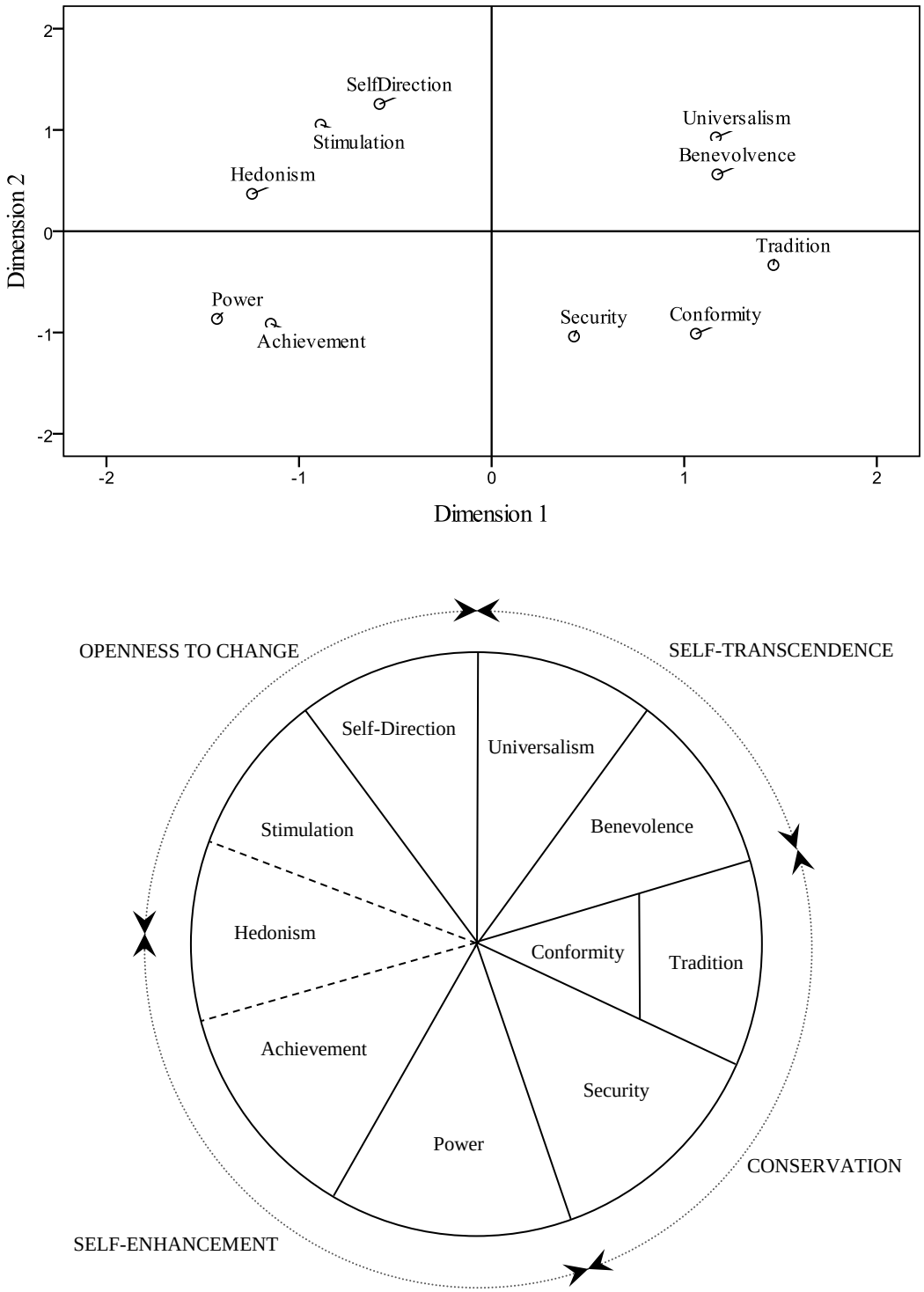


Figure 12. Value structure of Study Two participants studied with the PVQ: Multidimensional scaling analyses.

The results of MDS analysis using the PVQ largely indicate 10 separate and discrete value sectors, in the proposed theoretical order, and that the model is circular. The exception is that the positions of Power and Achievement are swapped.

In summary, as participant age increased participants reported less depressed mood and greater importance of values, knowledge of their values, living in alignment with their values, and greater general happiness. Participants in the United Kingdom rated the importance of values lower compared to participants from New Zealand and the United States of America. Females rated values as more important, reported greater knowledge of their values, reported greater depressed mood, and rated Self-Transcendence as more important than Self-Enhancement compared to males. Participants with a psychiatric diagnosis reported greater depressed mood, lower satisfaction with life, emotional wellbeing, and happiness, and that they were happy less of the time and unhappy more of the time compared to those without a psychiatric diagnosis. Participants taking medications reported greater depressed mood, lower emotional wellbeing and happiness, and that they were happy less of the time and unhappy more of the time compared to those not taking medications.

3.5.2 Depressed mood.

3.5.2.1 Correlation analysis.

The results in this section address hypotheses H9 to H14. Firstly, Pearson Product-moment correlations were calculated to look at how depressed mood related to the importance of values question, knowledge of values, living in alignment with values, Schwartz continua placements, total PVQ scores, and the 10 PVQ value types. There were no statistically significant correlations ($p < .05$) between total CES-DS scores, and the importance of values question, total PVQ score, or Schwartz's continua scores. However there were moderate and strong negative correlations between total CES-DS scores, and knowledge of values scores ($r = -.21$, $p < .01$) and living in alignment with values scores ($r = -.45$, $p < .01$). Thus there were no associations between depressed mood and the importance of values question or the PVQ total (H9), or with the Schwartz continua placements of Self-Enhancement/Self-Transcendence or Openness-to-Change/Conservation (H11 and H12). However, greater depressed mood was moderately associated with lower knowledge of values ratings (H13) and strongly associated with lower ratings of living in alignment with values (H14).

Table 25 presents Pearson Product-moment correlations between total CES-DS scores and the 10 PVQ value types.

Table 25
Pearson Product-moment Correlations Relating CES-DS Scores to PVQ Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
CES-DS & PVQ	-.104*	-.141**	-.191**	.031	-.023	.003	.007	-.031	-.005	.057

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. CES-DS = Centre for Epidemiological Studies Depression Scale. PVQ = Portrait Values Questionnaire.
*$p < .05$, **$p < .01$.

As shown in Table 25, analysis of the importance of the 10 value types indicated that greater depressed mood was not, as hypothesised, associated with lesser importance of Benevolence and Achievement (H10). Instead, and in line with original theorising (Section 1.4.3), greater depressed mood was associated with lesser importance of Stimulation, Self-Direction and Hedonism.

Next the analysis used a sinusoid curve to look at the pattern of associations of the 10 PVQ value types in relation to depressed mood. Figure 13 shows the expected pattern of associations according to the original theorising for depressed mood ("Schwartz theory"), and the PVQ correlation results from Table 25; the associations between the 10 PVQ values and CES-DS scores.

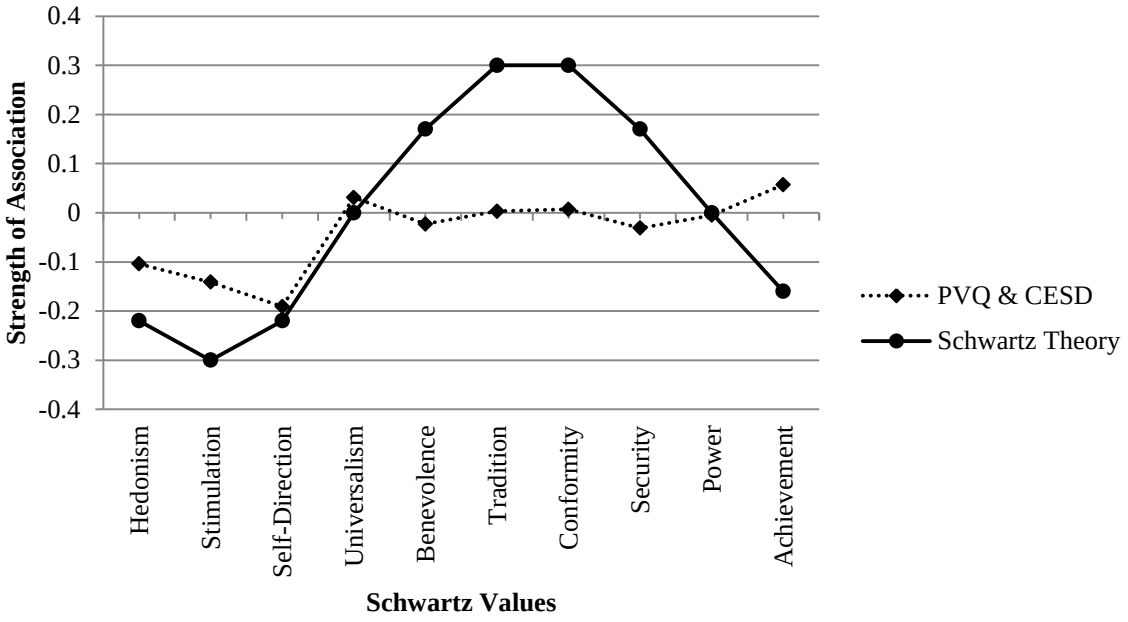


Figure 13. Sinusoid curve of value associations between CES-DS scores and PVQ values.

Figure 13 indicates that the pattern of relationships between the 10 PVQ values and depressed mood are mixed, with only five of the 10 values (Hedonism, Stimulation, Self-Direction, Universalism, Power) mirroring theorising from Schwartz's model. Depressed mood is not associated with lesser importance of Benevolence and Achievement as was hypothesised (H10). In addition, with the exception of Benevolence and Achievement, this pattern of associations between the 10 PVQ value types and depressed mood is similar to that found in Study One (i.e., Figure 5).

In summary, there were no associations between depressed mood and the importance of values (H9), or with the Schwartz continua placements (H11 and H12).

However, greater depressed mood was moderately associated with lower knowledge of values ratings (H13) and strongly associated with lower ratings of living in alignment with values (H14). In addition, greater depressed mood was associated with lesser importance of Stimulation, Self-Direction and Hedonism (H10).

3.5.2.2 Regression analysis.

This section presents results from hierarchical multiple regression analysis which addressed hypotheses H9 to H14: the relationship between the importance of values, knowledge of values, living in alignment with values, two Schwartz continua placements, and depressed mood. Table 26 shows results of seven hierarchical multiple regressions: predicting depressed mood from the importance of values (H9), the importance of specific values (H10), Schwartz continua placements (H11 and H12), knowledge of values (H13), and living in alignment with values (H14).

Table 26

Hierarchical Multiple Regression Analyses Predicting Depressed Mood from the Importance of Values (H9), the Importance of Specific Values (H10), Schwartz Continua Placements (H11 and H12), Knowledge of Values (H13), and Living in Alignment with Values (H14)

Variable	R^2	ΔR^2	B	SE B	β
H9					
Step 1	.035	.035***			
Constant			13.686	2.235	
Age			-.135	.037	-.165***
Gender			1.626	.992	.073
Step 2 (ImpVQ)	.037	.002***			
Constant			16.438	3.335	
Age			-.125	.038	-.153***
Gender			1.812	1.006	.082
ImpVQ			-.393	.353	-.051
Step 2 (PVQtot)	.040	.005***			
Constant			18.119	3.615	
Age			-.137	.037	-.167***
Gender			1.659	.991	.075
PVQtot			-.038	.024	-.069
H10					
Step 1	.035	.035***			
Constant			13.686	2.235	
Age			-.135	.037	-.165***
Gender			1.626	.992	.073
Step 2	.097	.061***			
Constant			21.241	3.882	
Age			-.129	.042	-.157**
Gender			1.236	.994	.056
PVQ Hedonism			-.801	.505	-.085
PVQ Stimulation			-.817	.540	-.085
PVQ Self-Direction			-2.293	.743	-.168**
PVQ Universalism			2.102	.679	.168**
PVQ Benevolence			-.466	.693	-.036

PVQ Tradition			.399	.656	.036
PVQ Conformity			-.718	.635	-.069
PVQ Security			-.398	.642	-.034
PVQ Power			.330	.581	.033
PVQ Achievement			.786	.554	.086
H11 & H12					
Step 1	.035	.035***			
Constant			13.686	2.235	
Age			-.135	.037	-.165***
Gender			1.626	.992	.073
Step 2 (H11)	.035	.001***			
Constant			14.104	2.556	
Age			-.134	.037	-.164***
Gender			1.673	1.002	.075
VSEvsST			-.088	.260	-.015
Step 2 (H12)	.040	.005***			
Constant			12.236	2.398	
Age			-.134	.037	-.163***
Gender			1.610	.990	.072
VOPvsCO			.361	.219	.073
H13					
Step 1	.035	.035***			
Constant			13.686	2.235	
Age			-.135	.037	-.165***
Gender			1.626	.992	.073
Step 2	.073	.038***			
Constant			23.571	3.108	
Age			-.096	.037	-.117**
Gender			2.461	.991	.111**
VKnow			-1.566	.349	-.204***
H14					
Step 1	.035	.035***			
Constant			13.686	2.235	
Age			-.135	.037	-.165***

Gender			1.626	.992	.073
Step 2	.225	.190***			
Constant			32.560	2.644	
Age			-.091	.033	-.111**
Gender			2.040	.891	.092*
VLive			-2.813	.257	-.440***

Note. ImpVQ = Importance of Values Question. PVQtot = Portrait Values Questionnaire total. VSEvsST = Self-Enhancement/Self-Transcendence continuum. VOPvsCO = Openness-to-Change/Conservation continuum. VKnow = Knowledge of values. VLive = Living in alignment with values.
*$p < .05$, **$p < .01$, *** $p < .001$.

As Table 26 shows, all analyses controlled for both age and gender with gender explaining a small amount of the variance in depressed mood and age a greater amount. The importance of values as a whole (H9) explained a very small amount of the variance in depressed mood (0.2% and 0.5%). However the importance of specific values (H10) explained a larger amount of the variance in depressed mood (7.4%), with greater depressed mood associated with lesser importance of Self-Direction and greater importance of Universalism. This result is different to that hypothesised; it was expected that depressed mood would be negatively related with importance ratings of Benevolence and Achievement. Both the Schwartz continua questions explained very little variance in depressed mood (0% and 0.5%), however knowledge of values explained a small amount of the variance in depressed mood (3.8%), with greater depressed mood associated with lower knowledge of values. In addition, living in alignment with values explained a large amount of the variance in depressed

mood (19.0%), with greater depressed mood associated with lower living in alignment with values.

In summary, regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in depressed mood; however the importance of the 10 specific value types explained a greater amount of the variance with greater depressed mood associated with lesser importance of Self-Direction and greater importance of Universalism. Schwartz continua placements explained very little variance in depressed mood; however a small amount of the variance in depressed mood was associated with lower knowledge of values ratings, and a large amount of the variance in depressed mood was associated with lower living in alignment with values ratings.

3.5.2.3 Between groups analysis

The results in this section address hypotheses H9 to H14, and involved *t*-tests comparing individuals with depressed mood (DMG: Depressed Mood Group) against individuals without depressed mood (Non-DMG: Non Depressed Mood Group). The DMG and Non-DMG was determined on the basis of scores on the CES-DS. Again, the CES-DS measures symptoms over the past week, and an adult score of 16 or greater defines 'likely depression' (Radloff, 1977), or "a clinically significant level of depressive symptoms" (Roberts, 1980, p. 130). The DMG were individuals who obtained scores of 16 or greater on CES-DS. One hundred and twenty four of the 492

participants (25%) in Study Two had a CES-DS score of 16 or greater. These 124 individuals were designated the DMG with the remaining participants designated the Non-DMG; demographic profiles of the DMG, Non-DMG and all Study Two participants are presented in Table 27.

Table 27
Demographic Information of the DMG, Non-DMG and All 492 Participants

	N			%		
	All	DMG	Non-DMG	All	DMG	Non-DMG
Gender						
Male	143	26	117	29	21	32
Female	349	98	251	71	79	68
Country						
New Zealand	274	60	214	56	48	58
United Kingdom	110	36	74	22	29	20
Canada	42	12	30	9	10	8
United States of America	32	4	28	6	3	8
Australia	30	12	18	6	10	5
Other	4	0	4	1	0	1
Psychiatric diagnosis						
Yes	89	34	55	18	27	15
No	403	90	313	82	73	85
Medication use						
Yes	107	38	69	22	31	19
No	385	86	299	78	69	81

Note. All = All Participants. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. Other = Finland, Germany, Spain, and South Africa.

Ages of all participants in Study Two ranged from 18 to 75 years with a mean age of 33.32 years (*SD* = 12.31); the ages for the DMG ranged from 18 to 68 years with a mean age of 29.81 years (*SD* = 9.89); and ages for the Non-DMG ranged from 18 to 75 with a mean age of 34.50 years (*SD* = 12.82). Therefore, the DMG and Non-DMG were relatively similar across the five demographic variables, although the

DMG were younger, a greater proportion were female, foreign, and reported higher rates of psychiatric diagnosis and medication use than the Non-DMG.

As a confirmation check that the CES-DS had isolated a group of participants with depressed mood, a series of four independent samples *t*-tests investigated the difference between the DMG and Non-DMG on two related measures: the SwLS and HM. Remember, higher scores on the SwLS indicate greater satisfaction with life, higher scores on the HM scale question indicate a greater perceived quality of general happiness, higher percentages on the HM percent time happy question indicate a greater amount of time happy, and higher percentages on the HM percent time unhappy question indicate a greater amount of time unhappy. As shown in Table 28, there were big differences in all four *t*-tests.

Table 28
Independent Samples t-tests Between the DMG and Non-DMG Responses on the SwLS and HM

	M		*SD*		*t*	*p*	*d*
	DMG	Non-DMG	DMG	Non-DMG			
SwLS	16.83	25.42	7.58	5.14	-14.135	.001***	1.33
HM scale	5.20	7.61	2.22	1.26	-15.680	.001***	1.26
HM % time happy	38.31	63.95	22.97	20.96	-11.498	.001***	1.17
HM % time unhappy	32.62	11.55	21.74	7.04	16.264	.001***	1.30

Note. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. SwLS = Satisfaction with Life Scale. HM = Happiness Measures.
***$p < .001$.

As expected, compared to the Non-DMG, the DMG were less satisfied with life, reported a lower perceived quality of general happiness, a less amount of time happy, and a greater amount of time unhappy. This confirmation check increased confidence that the CES-DS had isolated a group of participants with depressed mood.

To recap the predicted associations, it was expected that, compared to those in the Non-DMG, participants in the DMG would rate values as being less important (H9), rate the importance of Benevolence and Achievement lower (H10), rate Self-Transcendence (H11) and Conservation (H12) greater and Self-Enhancement and

Openness-to-Change lower, and report less knowledge of their values (H13) and lower living in alignment with their values (H14).

Table 29 presents the results of independent samples *t*-tests between the DMG and Non-DMG responses on the importance of values question (H9), PVQ (H9 and H10), Schwartz continua questions (H11 and H12), knowledge of values question (H13), and living in alignment with values question (H14). Although no specific predictions were made regarding Hedonism, Stimulation, Self-Direction, Universalism, Tradition, Security, Power or Conformity for H10, these value types were also tested.

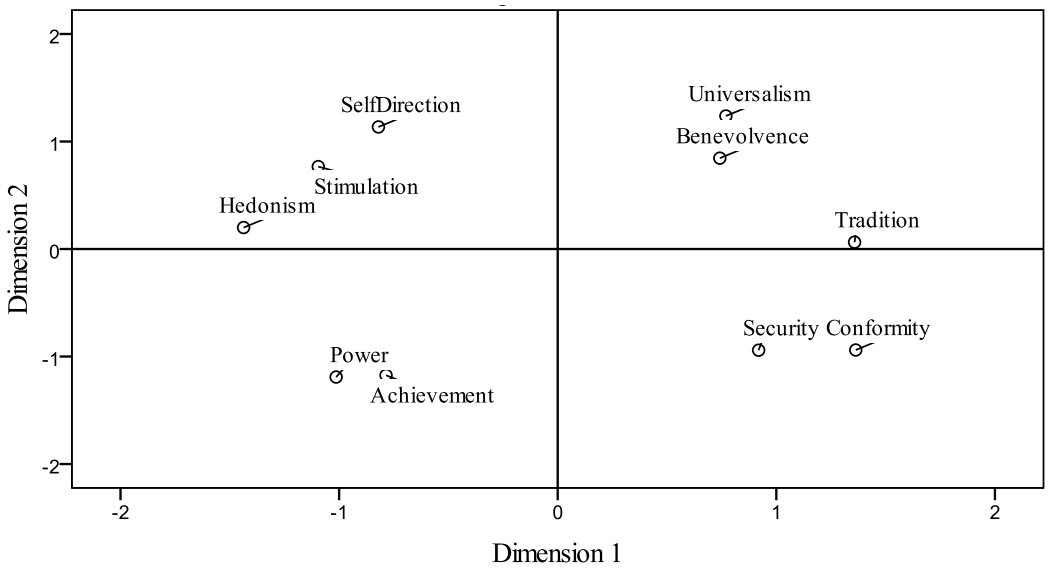
Table 29
Independent Samples t-tests Between the DMG and Non-DMG Responses on the PVQ

	M		*SD*		*t*	*p*	*d*
	DMG	Non-DMG	DMG	Non-DMG			
H9							
PVQ total	114.81	118.20	18.65	18.50	-1.759	.079	.18
ImpVQ	8.56	8.67	1.30	1.32	-.838	.402	.08
H10							
Hedonism	2.86	3.13	1.13	1.04	-2.383	.018**	.25
Stimulation	2.61	2.98	1.10	1.02	-3.355	.001***	.35
Self-Direction	3.59	3.91	.84	.68	-4.137	.001***	.41
Universalism	3.47	3.50	.82	.80	-.395	.693	.04
Benevolence	3.58	3.66	.84	.77	-.939	.348	.10
Tradition	2.04	2.00	.92	.91	.482	.630	.04
Conformity	2.46	2.48	1.00	.96	-.197	.844	.02
Security	2.64	2.73	.79	.87	-.917	.359	.11
Power	1.88	1.91	1.05	.98	-.335	.738	.03
Achievement	3.01	2.84	1.13	1.09	1.452	.147	.15
H11 & 12							
VSEvsST	5.89	6.06	1.92	1.69	-.966	.334	.09
VOPvsCO	4.19	3.90	2.02	2.03	1.320	.187	.14
H13 & 14							
VKnow	7.65	8.18	1.60	1.17	-3.935	.001***	.38
Vlive	6.62	7.78	2.06	1.25	-7.435	.001***	.68

Note. DMG = Depressed Mood Group. Non-DMG = Non-Depressed Mood Group. PVQ = Portrait Values Questionnaire. ImpVQ = Importance of Values Question. VSEvsST = Self-Enhancement/Self-Transcendence continuum. VOPvsCO = Openness-to-Change/Conservation continuum. VKnow = Knowledge of values question. VLive = Living in alignment with values question.
$^{**}p < .01$, $^{***}p < .001$.

Table 29 indicates that the importance of values as a whole was not associated with depressed mood (H9), and the importance of Achievement or Benevolence were not associated with depressed mood (H10) as hypothesised. However individuals with greater depressed mood reported lesser importance of Self-Direction, Stimulation, and Hedonism; in alignment with original theorising from Schwartz's model (Section 1.4.3). There were no associations with depressed mood and ratings on either of the Schwartz continua questions (H11 & H12), but individuals with greater depressed mood reported less knowledge of their values (H13), and that they were living in alignment with their values less as hypothesised (H14). The Cohen's *d* effect size of .68 between DMG and Non-DMG individuals living in alignment with values was particularly large.

Following this, multidimensional scaling analysis (MDS) (Davison, 1983) was performed to verify the distinctiveness of the DMG and Non-DMG 10 value types as being similar to Schwartz's values structure. This analysis is shown in Figures 14 and 15.



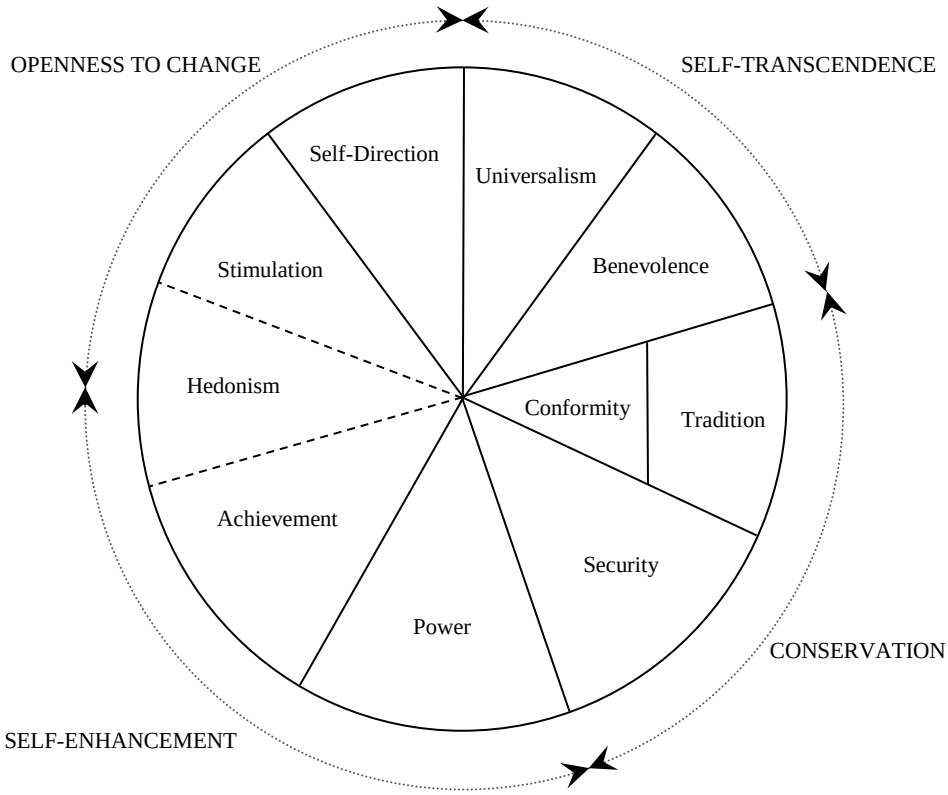
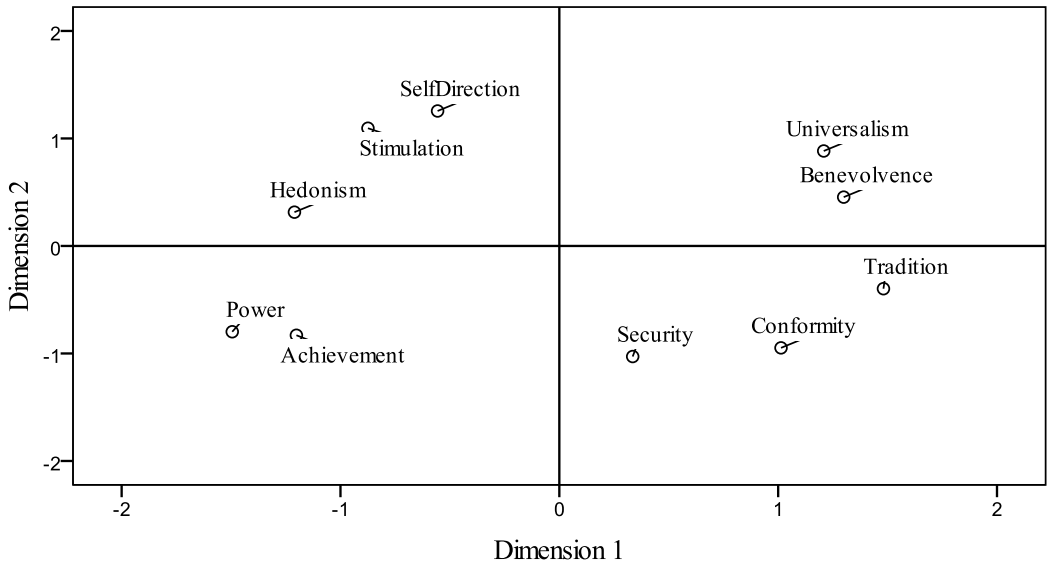


Figure 14. Value structure of the DMG studied with the PVQ: Multidimensional scaling analyses



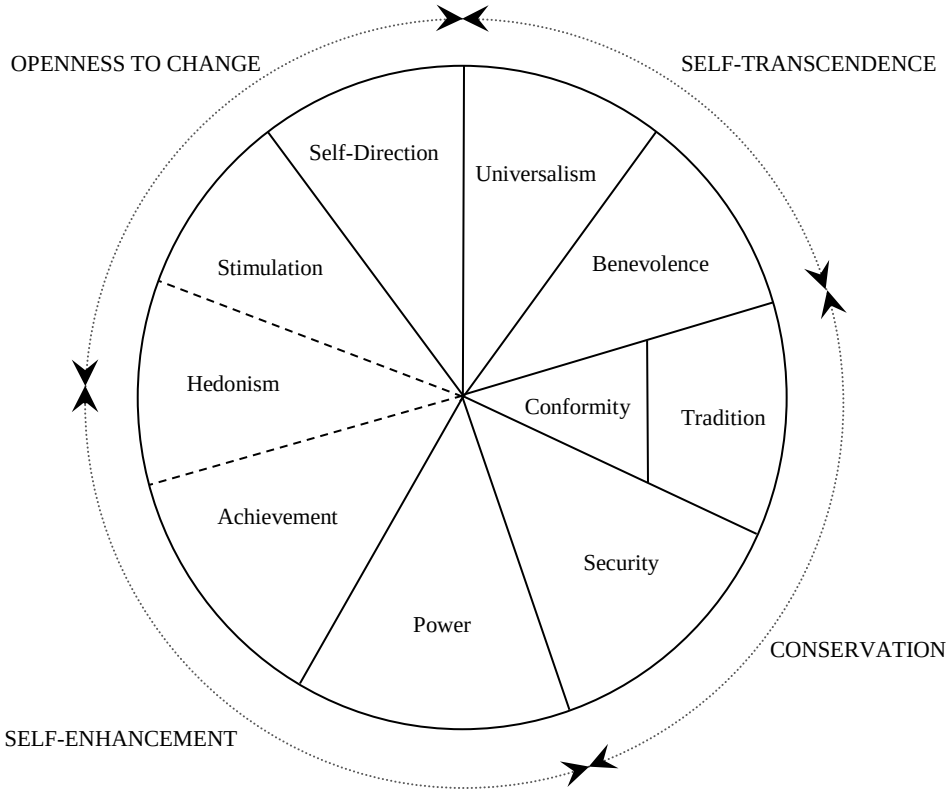


Figure 15. Value structure of the Non-DMG studied with the PVQ: Multidimensional scaling analyses

Figures 14 and 15 shows that the value structure of the DMG and Non-DMG largely represents Schwartz's model, and is similar to Figure 12 (the values structure of all Study Two participants assessed with the PVQ), including having the values of Power and Achievement swapped. Thus this analysis did not identify any difference between mood groups; MDS analysis identified that the DMG and Non-DMG values were equally coherent. Where in Study One the value type Universalism was not located near its complementary value types of Self-Direction and Benevolence for the DMG, this variation was not apparent in Study Two data.

3.5.3 Subjective wellbeing.

3.5.3.1 Correlation analysis.

The results in this section address hypotheses H15 to H20. Firstly, Pearson Product-moment correlations were calculated to look at how SWB variables related to the importance of values question, total PVQ scores and the 10 PVQ value types, Schwartz continua placements, knowledge of values, and living in alignment with values variables.

There was no statistically significant correlation ($p < .05$) between total SwLS scores, and Self-Enhancement/Self-Transcendence continuum scores. However, there were small, moderate, and large positive correlations between total SwLS scores, and the importance of values question scores ($r = .11$, $p < .05$), knowledge of values scores ($r = .26$, $p < .01$), total PVQ scores ($r = .26$, $p < .01$), and living in alignment

with values scores (r = .48, p < .01). There was also a small negative correlation between total SwLS scores and Openness-to-Change/Conservation continuum scores (r = -.11, p < .05).

There were no statistically significant correlations (p < .05) between HM scale scores, and the importance of values question or Self-Enhancement/Self-Transcendence continuum scores. However, there were small and moderate positive correlations between HM scale scores, and knowledge of values scores (r = .17, p < .01), total PVQ scores (r = .20, p < .01), and living in alignment with values scores (r = .41, p < .01). There was also a small negative correlation between HM scale scores and Openness-to-Change/Conservation continuum scores (r = -.12, p < .01).

Thus greater satisfaction with life was associated with greater importance of values as a whole (importance of values question & PVQ total), knowledge of values, living in alignment with values, and Openness-to-Change, and with lower Conservation. There were no associations between life satisfaction and the Self-Enhancement/Self-Transcendence continuum. Greater emotional wellbeing was associated with greater importance of values (PVQ total), knowledge of values, living in alignment with values, and Openness-to-Change, and with lower Conservation. There were no associations between emotional wellbeing and the importance of values question or the Self-Enhancement/Self-Transcendence continuum question scores.

Table 30 presents Pearson Product-moment correlations between total SwLS scores and HM scale scores, and the 10 PVQ value types.

Table 30
Pearson Product-moment Correlations Relating SwLS and HM Scale Scores to PVQ Value Types

	Hed	Sti	Sel	Uni	Ben	Tra	Con	Sec	Pow	Ach
SwLS & PVQ	.167**	.195**	.159**	.060	.193**	.101*	.092*	.092*	.057	.044
HM scale & PVQ	.239**	.224**	.174**	.023	.159**	.061	.071	.044	.025	.085

Note. Hed = Hedonism. Sti = Stimulation. Sel = Self Direction. Uni = Universalism. Ben = Benevolence. Tra = Tradition. Con = Conformity. Sec = Security. Pow = Power. Ach = Achievement. SwLS = Satisfaction with Life Scale total. PVQ = Portrait Values Questionnaire. HM = Happiness Measures.
*$p < .05$, **$p < .01$.

As shown in Table 30, analysis of the importance of the 10 value types (PVQ) indicated that greater life satisfaction was associated with greater importance of Hedonism, Stimulation, Self-Direction, Benevolence, Tradition, Conformity, and Security. Greater emotional wellbeing was associated with greater importance of Hedonism, Stimulation, Self-Direction, and Benevolence. Remember it was hypothesised that SWB would be positively related with importance ratings of Stimulation, Achievement, and Benevolence, and negatively related with importance ratings of Hedonism. Thus, as hypothesised, greater importance of Stimulation and Benevolence were associated with greater SWB. However greater importance of Self-Direction was also associated with both greater life satisfaction and emotional wellbeing, and greater importance of Tradition, Conformity, and Security were also associated with greater life satisfaction. In addition, Achievement was not related to

SWB as hypothesised, and greater Hedonism was associated with both greater life satisfaction and emotional wellbeing, and not less, as hypothesised.

Next the analysis used a sinusoid curve to look at the pattern of associations of the 10 PVQ values in relation to SWB. Figure 16 shows the expected pattern of associations according to the original theorising for SWB ("Schwartz Theory") and the PVQ correlations from Table 30; the associations between SwLS and HM scale scores and the 10 PVQ value types.

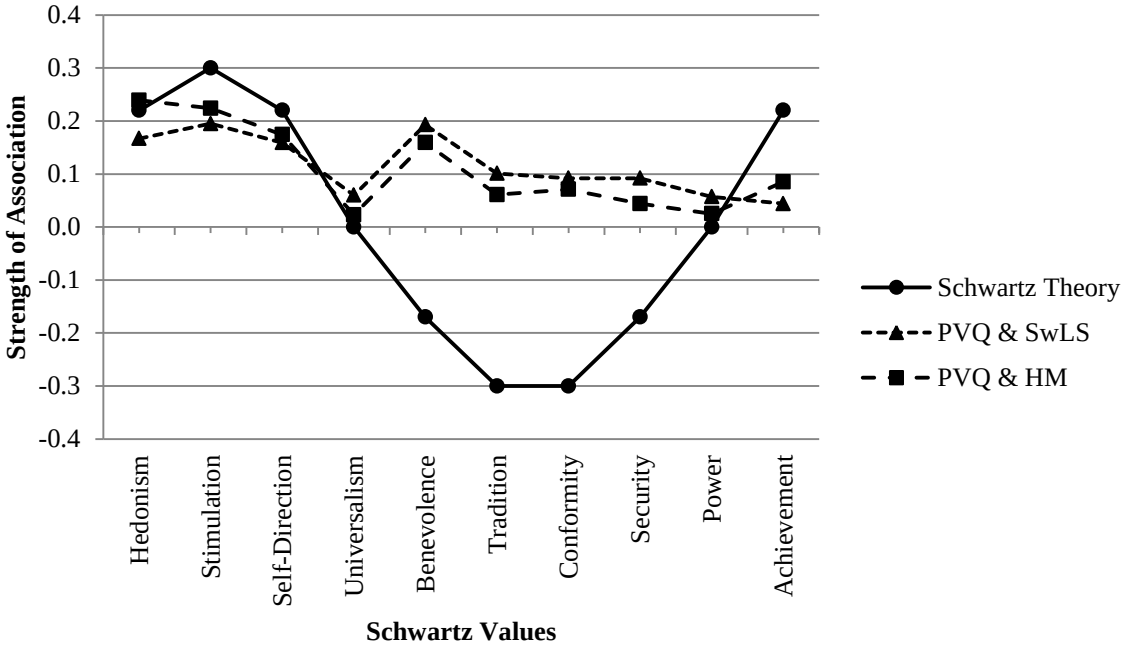


Figure 16. Sinusoid curve of value associations between SwLS and HM scale scores, and PVQ values.

Figures 16 indicates that the relationships between the 10 PVQ value types and SWB are mixed with five (Hedonism, Stimulation, Self-Direction, Universalism, Power) of the 10 values mirroring original theorising from Schwartz's model. In

addition, this pattern of associations between the 10 PVQ value types and SWB is similar to that found in Study One (i.e., Figure 8).

In summary, greater life satisfaction was associated with greater importance of values as a whole (H15), greater importance of Hedonism, Stimulation, Self-Direction, Benevolence, Tradition, Conformity, and Security (H16), greater knowledge of values (H19) and living in alignment with values (H20), and with more Openness-to-Change and less Conservation (H18). Greater emotional wellbeing was associated with greater importance of values (H15) (when assessed with the PVQ, but not when assessed with the importance of values question), greater importance of Hedonism, Stimulation, Self-Direction, and Benevolence (H16), greater knowledge of values (H19) and living in alignment with values (H20), and with more Openness-to-Change and less Conservation (H18). The associations between SWB and living in alignment with values were particularly strong (r = .48 and r = .41).

3.5.3.2 Regression analysis.

This section presents results from hierarchical multiple regression analysis which addressed hypotheses H15 to H20: the relationship between the importance of values, knowledge of values, living in alignment with values, two Schwartz continua placements and with SWB. Table 31 shows results of seven hierarchical multiple regressions: predicting life satisfaction from the importance of values (H15), the

importance of specific values (H16), Schwartz continua placements (H17 and H18), knowledge of values (H19), and living in alignment with values (H20).

Table 31

Hierarchical Multiple Regression Analyses Predicting Life Satisfaction from the Importance of Values (H15), the Importance of Specific Values (H16), Schwartz Continua Placements (H17 and H18), Knowledge of Values (H19), and Living in Alignment with Values (H20)

Variable	R^2	ΔR^2	B	SE B	β
H15					
Step 1	.009	.009			
Constant			20.451	1.555	
Age			.051	.025	.091*
Gender			.638	.690	.042
Step 2 (ImpVQ)	.017	.008*			
Constant			16.994	2.314	
Age			.039	.026	.069
Gender			.405	.698	.027
ImpVQ			.493	.245	.094*
Step 2 (PVQtot)	.057	.048***			
Constant			10.805	2.460	
Age			.056	.025	.100
Gender			.566	.674	.037
PVQtot			.082	.016	.219***
H16					
Step 1	.009	.009			
Constant			20.451	1.555	
Age			.051	.025	.091*
Gender			.638	.690	.042
Step 2	.098	.089***			
Constant			9.166	2.663	
Age			.068	.029	.120*
Gender			.629	.678	.049
PVQ Hedonism			.625	.346	.097
PVQ Stimulation			.792	.370	.120*
PVQ Self-Direction			.712	.509	.076
PVQ Universalism			-.884	.466	-.103
PVQ Benevolence			1.480	.476	.169**
PVQ Tradition			.048	.450	.006

PVQ Conformity			.496	.436	.069
PVQ Security			.094	.440	.012
PVQ Power			.122	.398	.018
PVQ Achievement			-.065	.380	-.010
H17 & H18					
Step 1	.009	.009			
Constant			20.451	1.555	
Age			.051	.025	.091*
Gender			.638	.690	.042
Step 2 (H17)	.013	.004			
Constant			19.235	1.773	
Age			.048	.026	.086
Gender			.501	.696	.033
VSEvsST			.257	.180	.065
Step 2 (H18)	.021	.012**			
Constant			21.918	1.663	
Age			.050	.025	.089*
Gender			.654	.687	.043
VOPvsCO			-.366	.152	-.108*
H19					
Step 1	.009	.009			
Constant			20.451	1.555	
Age			.051	.025	.091*
Gender			.638	.690	.042
Step 2	.066	.057***			
Constant			12.147	2.142	
Age			.019	.025	.033
Gender			-.064	.683	-.004
VKnow			1.316	.241	.249***
H20					
Step 1	.009	.009			
Constant			20.451	1.555	
Age			.051	.025	.091*
Gender			.638	.690	.042

Step 2	.232	.223***			
Constant			6.434	1.808	
Age			.019	.023	.033
Gender			.330	.609	.022
VLive			2.089	.176	.475***

Note. ImpVQ = Importance of values question. PVQtot = Portrait Values Questionnaire total. VSEvsST = Self-Enhancement/Self-Transcendence continuum. VOPvsCO = Openness-to-Change/Conservation continuum. VKnow = Knowledge of values. VLive = Living in alignment with values.
*$p < .05$, **$p < .01$, *** $p < .001$.

Table 32 shows results of seven hierarchical multiple regressions: predicting emotional wellbeing (positive affect) from the importance of values (H15), the importance of specific values (H16), Schwartz continua placements (H17 and H18), knowledge of values (H19), and living in alignment with values (H20).

Table 32

Hierarchical Multiple Regression Analyses Predicting Emotional Wellbeing from the Importance of Values (H15), the Importance of Specific Values (H16), Schwartz Continua Placements (H17 and H18), Knowledge of Values (H19), and Living in Alignment with Values (H20)

Variable	R^2	ΔR^2	B	SE B	β
H15					
Step 1	.001	.001			
Constant			7.200	.408	
Age			.001	.007	.005
Gender			-.130	.181	-.033
Step 2 (ImpVQ)	.006	.005			
Constant			6.495	.608	
Age			-.002	.007	-.012
Gender			-.178	.183	-.045
ImpVQ			.101	.064	.073
Step 2 (PVQtot)	.042	.041***			
Constant			4.872	.648	
Age			.002	.007	.013
Gender			-.147	.178	-.037
PVQtot			.020	.004	.203***
H16					
Step 1	.001	.001			
Constant			7.200	.408	
Age			.001	.007	.005
Gender			-.130	.181	-.033
Step 2	.113	.111***			
Constant			4.075	.691	
Age			.010	.007	.066
Gender			-.120	.177	-.030
PVQ Hedonism			.293	.090	.173***
PVQ Stimulation			.183	.096	.106
PVQ Self-Direction			.275	.132	.113*
PVQ Universalism			-.284	.121	-.127*
PVQ Benevolence			.306	.123	.133*

PVQ Tradition			-.019	.117	-.010
PVQ Conformity			.171	.113	.091
PVQ Security			-.052	.114	-.025
PVQ Power			-.175	.103	-.097
PVQ Achievement			.104	.098	.063
H17 & H18					
Step 1	.001	.001			
Constant			7.200	.408	
Age			.001	.007	.005
Gender			-.130	.181	-.033
Step 2 (H17)	.003	.001			
Constant			7.016	.466	
Age			.000	.007	.002
Gender			-.130	.181	-.033
VSEvsST			.039	.047	.038
Step 2 (H18)	.016	.015*			
Constant			7.631	.436	
Age			.000	.007	.003
Gender			-.125	.180	-.031
VOPvsCO			-.107	.040	-.121*
H19					
Step 1	.001	.001			
Constant			7.200	.408	
Age			.001	.007	.005
Gender			-.130	.181	-.033
Step 2	.030	.029**			
Constant			5.649	.571	
Age			-.005	.007	-.036
Gender			-.261	.182	-.065
VKnow			.246	.064	.178***
H20					
Step 1	.001	.001			
Constant			7.200	.408	
Age			.001	.007	.005
Gender			-.130	.181	-.033

Step 2	.169	.168***			
Constant			4.020	.492	
Age			-.007	.006	-.045
Gender			-.200	.166	-.050
VLive			.474	.048	.413***

Note. ImpVQ = Importance of values question. PVQtot = Portrait Values Questionnaire total. VSEvsST = Self-Enhancement/Self-Transcendence continuum. VOPvsCO = Openness-to-Change/Conservation continuum. VKnow = Knowledge of values. VLive = Living in alignment with values.
*$p < .05$, *** $p < .001$.

As Tables 31 and 32 show, all analyses controlled for both age and gender, with age and gender explaining a small amount of the variance in SWB. The importance of values as a whole (H15) explained a very small amount of the variance in life satisfaction (0.8% and 4.8%) and emotional wellbeing (0.5% and 4.1%). However the importance of specific values (H16) explained a larger amount of the variance in life satisfaction (8.9%) and emotional wellbeing (11.1%). As hypothesised, greater life satisfaction was associated with greater importance of Stimulation and Benevolence. However, it was also expected that greater SWB would be associated with greater Achievement and lower Hedonism, and this result was not apparent for life satisfaction. As hypothesised, greater emotional wellbeing was associated with greater Benevolence, but not with greater Stimulation and Achievement, or with lower Hedonism. Instead greater emotional wellbeing was associated with greater Hedonism, Self-Direction and lower Universalism.

Both Schwartz continua questions explained very little variance in depressed mood; the Self-Enhancement/Self-Transcendence question explained 0.4% of life

satisfaction and 0.5% of emotional wellbeing, and the Openness-to-Change/Conservation question explained 1.2% of life satisfaction and 4.1% of emotional wellbeing. As hypothesised, SWB was associated with greater Openness-to-Change and lower Conservation, but greater Self-Enhancement and lower Self-Transcendence was not associated with SWB as hypothesised.

Knowledge of values explained a small amount of the variance in life satisfaction (5.7%) and emotional wellbeing (2.9%), with, as hypothesised, greater life satisfaction and emotional wellbeing associated with greater knowledge of values. In addition, living in alignment with values explained a large amount of the variance in life satisfaction (22.3%) and emotional wellbeing (16.8%), with, as hypothesised, greater life satisfaction and emotional wellbeing associated with greater living in alignment with values.

In summary, regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in SWB, however the importance of the 10 specific value types explained a greater amount of the variance. Greater importance of the value types Stimulation, Self-Direction, Hedonism and Benevolence, and lesser importance of Universalism, were associated with greater SWB. Greater SWB was also associated with greater knowledge of values, living in alignment with values, and Openness-to-Change, and with lower Conservation.

3.5.3.3 Between groups analysis.

The results in this section address hypotheses H15 to H20 and involve *t*-tests comparing individuals with high SWB (SWBG: Subjective Wellbeing Group) against individuals without high SWB (Non-SWBG: Non Subjective Wellbeing Group). The SWBG was determined on the basis of scores on two measures of SWB: the Satisfaction with Life Scale (SwLS) and the Happiness Measures (HM). Again, SWB consists of a cognitive and an affective component; the SwLS measures the cognitive component and the HM scale question measures the affective component.

Adult scores between 26 to 30 on the SwLS define individuals 'satisfied' with life, and scores between 30 to 35 those who are 'extremely satisfied' with life. Remember that reported SwLS mean adult scores are between 23.0 and 24.9 (i.e., "slightly satisfied"). Two hundred and twenty two of the 492 participants in Study Two had a SwLS score of 26 or greater.

A score of eight on the HM scale question denotes a person 'Pretty happy (spirits high, feeling good)', nine denotes 'Very happy (feeling really good, elated)', and 10 denotes 'Extremely happy (feeling ecstatic, joyous, fantastic)'. Remember that a mean adult scale score is 6.92 (SD = 1.75). Two hundred and fifty eight of the 492 participants in Study Two had a HM scale score of 8 or greater.

In combination, these scores for both the SwLS and HM scale question resulted in 171 of the 492 participants (34%) having both a SwLS score of 26 or greater, and a HM scale score of eight or greater. In other words, these 171 individuals were 'satisfied' with life (or better) and 'pretty happy - spirits high, feeling good' (or better). These 171 individuals were designated the SWBG; demographic profiles of the SWBG, Non-SWBG and all Study Two participants are presented in Table 33.

Table 33
Demographic Information of the SWBG, Non-SWBG and All Participants

	N			*%*		
	All	SWBG	Non-SWBG	All	SWBG	Non-SWBG
Gender						
Male	143	52	91	29	30	28
Female	349	119	230	71	70	72
Country						
New Zealand	274	100	174	56	58	54
United Kingdom	110	32	78	22	19	24
Canada	42	14	28	9	8	9
United States of America	32	15	17	6	9	5
Australia	30	9	21	6	5	7
Other	4	1	3	1	1	1
Psychiatric diagnosis						
Yes	89	23	66	18	13	21
No	403	148	255	82	87	79
Medication use						
Yes	107	34	73	22	20	23
No	385	137	248	78	80	77

Note. All = All 492 Participants. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. Other = Finland, Germany, Spain, and South Africa.

Ages of all participants in Study Two ranged from 18 to 75 years, with a mean age of 33.32 (*SD* = 12.31), the ages for the SWBG ranged from 18 to 75 years with a mean age of 35.09 (*SD* = 13.15), and ages for the Non-SWBG ranged from 18 to 70 with a mean age of 32.38 (*SD* = 11.74).

Therefore, the SWBG and Non-SWBG were relatively similar across the five demographic variables, although a greater proportion of the SWBG group were male, older, from New Zealand, and were lower in rates of psychiatric diagnosis and medication use.

As a confirmation check that the SwLS and HM scale question had isolated a group of participants with high SWB, a series of four independent samples *t*-tests investigated the difference between the SWBG and Non-SWBG on two related measures: the CES-DS and HM. Remember, the CES-DS is a measure of depressed mood, the CES-DS-4IH a measure of global happiness, higher HM percent time happy percentages indicate a greater amount of time happy, and higher HM percent time unhappy percentages indicate a greater amount of time unhappy. As shown in Table 34, there were big differences in all four *t*-tests.

Table 34
Independent Samples t-tests Between the SWBG and Non-SWBG Responses on the CES-DS and HM

	M		*SD*		*t*	*p*	*d*
	SWBG	Non-SWBG	SWBG	Non-SWBG			
CES-DStot	6.98	14.62	5.88	10.85	-8.562	.001***	.87
CES-DS-4IH	10.61	8.30	1.74	3.03	9.171	.001***	.93
HM % time happy	74.30	48.54	13.93	23.72	13.049	.001***	1.32
HM % time unhappy	9.27	20.90	6.06	17.33	-8.502	.001***	.90

Note. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. CES-DStot = Centre for Epidemiological Studies Depression Scale total. CES-DS-4IH = Centre for Epidemiological Studies Depression Scale four item happiness. HM = Happiness Measures.
***$p < .001$.

As expected, compared to the Non-SWBG, the SWBG reported lower depressed mood, greater global happiness, and reported a greater amount of time happy and a lesser amount of time unhappy. This confirmation check increased confidence that the SwLS and HM scale question had isolated a group of participants with high SWB.

To recap the predicted associations, it was expected that compared to those in the Non-SWBG, participants in the SWBG would rate values as being more important (H15), have more knowledge of their values (H19), report living in alignment with their values more (H20), and rate Self-Enhancement (H17) and

Openness-to-Change (H18) higher, and Self-Transcendence and Conservation lower. In addition, it was also expected that compared to those in the Non-SWBG, participants in the SWBG would rate the importance of Stimulation, Achievement, and Benevolence higher, and the importance Hedonism lower (H16).

Table 35 presents the results of independent samples *t*-test between the SWBG and Non-SWBG responses on the PVQ (H15 & H16), importance of values question (H15), knowledge of values question (H19), living in alignment with values question (H20), and Schwartz continua questions (H17 and H18). Although no specific predictions were made regarding Self-Direction, Universalism, Conformity, Tradition, Security or Power for H16, these value types were also tested.

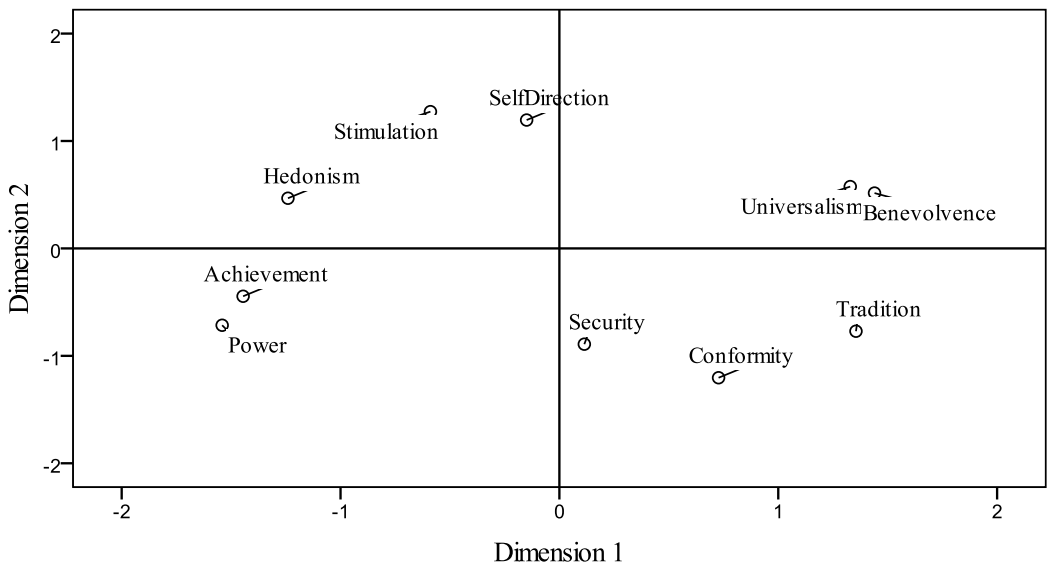
Table 35
Independent Samples t-tests Between the SWBG and Non-SWBG Responses on the PVQ

	M		*SD*		*t*	*p*	*d*
	SWBG	Non-SWBG	SWBG	Non-SWBG			
H15							
PVQ total	121.35	115.21	18.67	18.20	3.529	.001***	.33
ImpVQ	8.91	8.50	1.15	1.38	3.276	.001***	.32
H16							
Hedonism	3.28	2.95	1.03	1.08	3.274	.001***	.31
Stimulation	3.17	2.74	1.04	1.03	4.411	.001***	.41
Self-Direction	3.96	3.76	.67	.77	2.950	.003**	.28
Universalism	3.56	3.45	.77	.82	1.456	.146	.14
Benevolence	3.80	3.56	.64	.85	3.303	.001***	.32
Tradition	2.11	1.96	.89	.92	1.743	.082	.17
Conformity	2.52	2.44	.88	1.02	.858	.391	.08
Security	2.73	2.69	.81	.88	.391	.696	.05
Power	1.95	1.88	.97	1.02	.695	.488	.07
Achievement	2.90	2.88	1.13	1.09	.276	.782	.02
H17 & 18							
VSEvsST	6.23	5.91	1.60	1.81	1.948	.052	.24
VOPvsCO	3.59	4.18	1.89	2.10	-3.069	.002**	.29
H19 & 20							
VKnow	8.40	7.86	1.16	1.35	4.456	.001***	.43
Vlive	8.08	7.17	1.09	1.70	6.288	.001***	.64

Note. SWBG = Subjective Wellbeing Group. Non-SWBG = Non-Subjective Wellbeing Group. PVQ = Portrait Values Questionnaire. ImpVQ = Importance of Values Question. VSEvsST = Self-Enhancement/Self-Transcendence continuum. VOPvsCO = Openness-to-Change/Conservation continuum. VKnow = Knowledge of values question. VLive = Living in alignment with values question.
$^{**}p < .01$, $^{***}p < .001$.

Table 35 indicates that, as hypothesised, the SWBG, compared to the Non-SWBG, rated values as more important (H15), Openness-to-Change as more important and Conservation as less important (H18), and reported more knowledge of their values (H19), and that they were living in alignment with their values more (H20). The SWBG did not differ from the Non-SWBG in ratings of the Self-Enhancement/Self-Transcendence continuum (H17). In addition, and as hypothesised, the SWBG reported greater importance of Stimulation and Benevolence (H16), but not Achievement. The SWBG also reported greater importance of Self-Direction and Hedonism; the relationship with Self-Direction was not hypothesised, and it was expected that the SWBG would report lower, rather than greater, Hedonism. The Cohen's *d* effect size of .64 between SWBG and Non-SWBG individuals living in alignment with values was particularly large.

Following this, multidimensional scaling analysis (MDS) (Davison, 1983) was performed to verify the distinctiveness of the SWBG and Non-SWBG 10 value types as being similar to Schwartz's model. This analysis is shown in Figures 17 and 18.



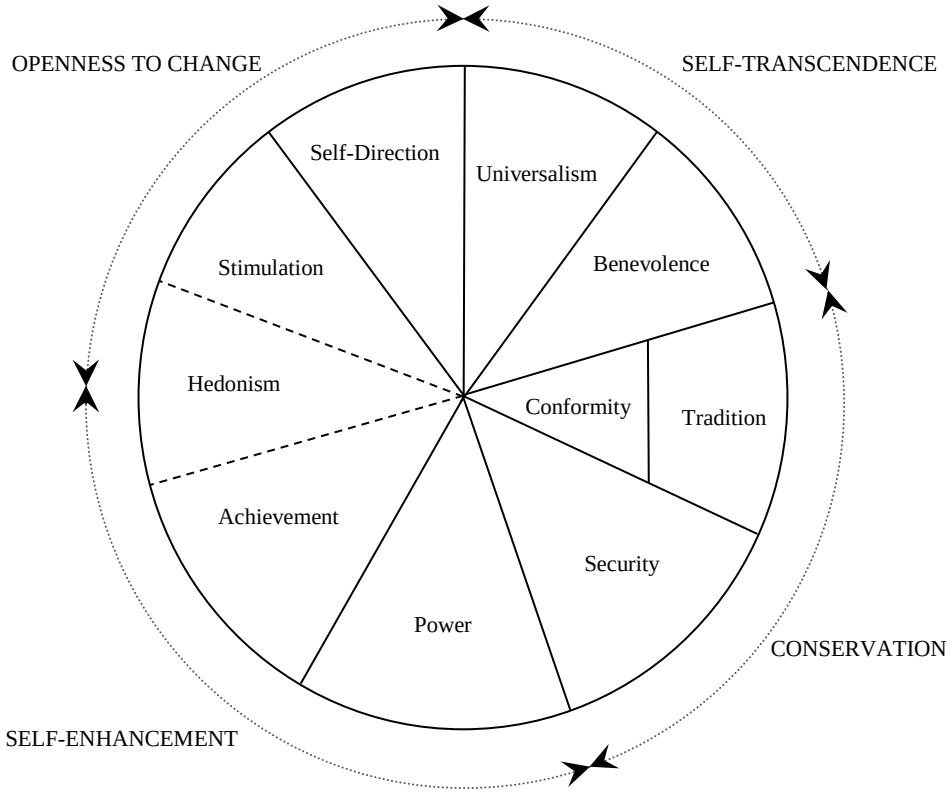
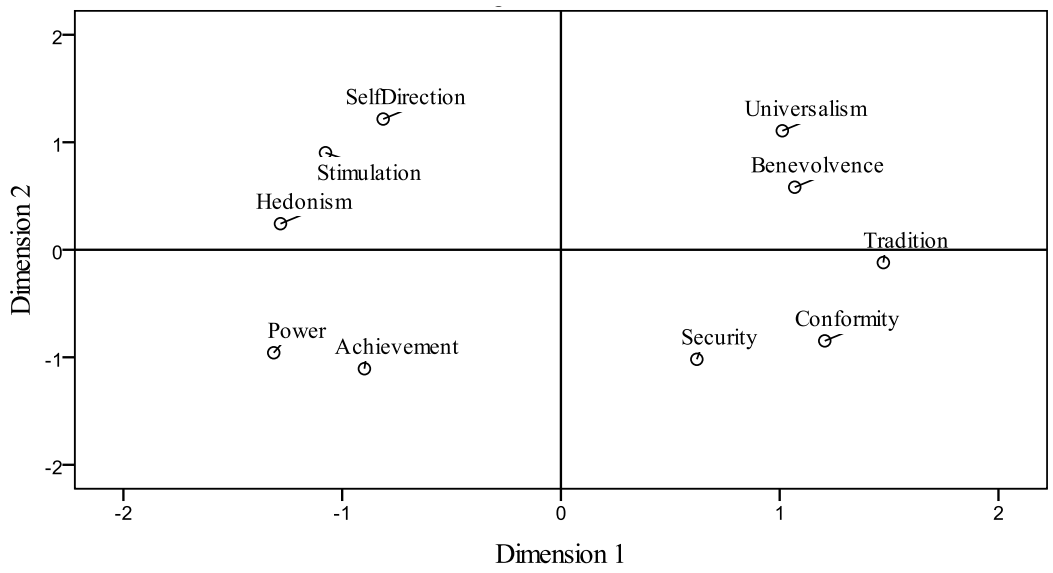


Figure 17. Value structure of the SWBG studied with the PVQ: Multidimensional scaling analyses



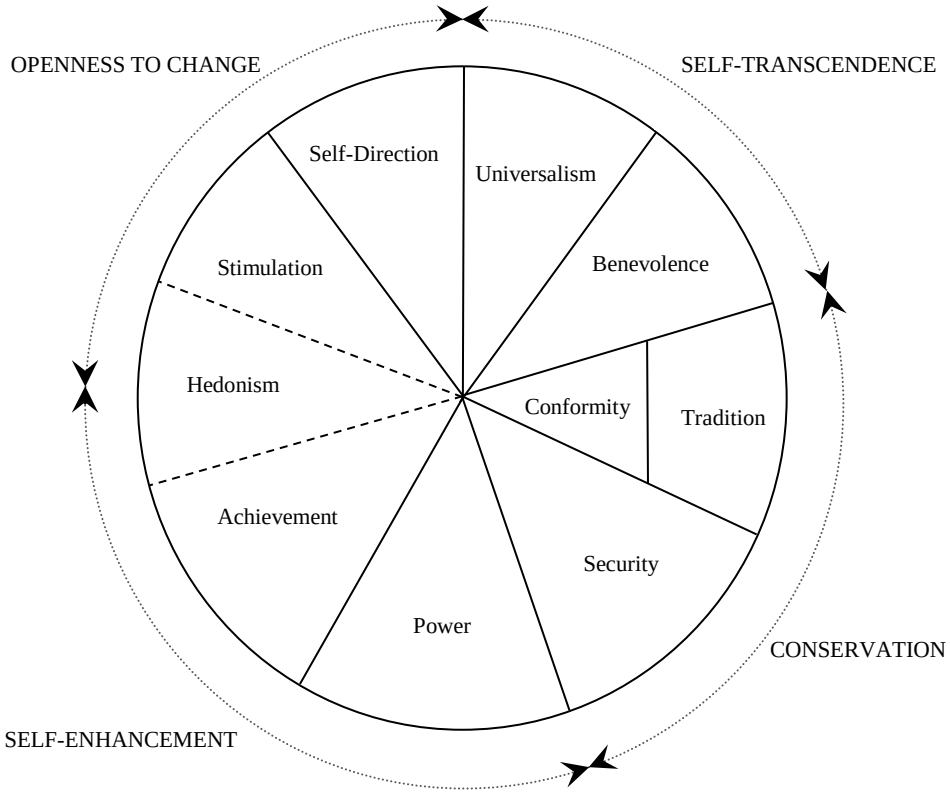


Figure 18. Value structure of the Non-SWBG studied with the PVQ: Multidimensional scaling analyses

Figures 17 and 18 show that the value structure of the SWBG and Non-SWBG largely represents Schwartz's model, and is similar to Figure 12 (the values structure of all Study Two participants assessed with the PVQ), including having the values of Power and Achievement swapped. Thus this analysis did not identify any difference between wellbeing groups; MDS analysis identified that the SWBG and Non-SWBG values were equally coherent. Where in Study One Figures 10 and 11 show differences in the coherence of values between the SWBG and Non-SWBG, that difference was not apparent in Study Two data.

3.6 Results summary

3.6.1 Overview.

Schwartz's model was apparent in the present data, with the PVQ verifying the distinctiveness of the 10 value types according to Schwartz's theory, and the two Schwartz continua questions assessing Schwartz's two higher order bipolar continua. Analysis on the five demographic variables indicated that age was positively related with the importance of values, knowledge of their values, living in alignment with their values, and greater general happiness, and negatively related with depressed mood. Participants in the United Kingdom rated the importance of values lower compared to participants from New Zealand and the United States of America. Females rated values as more important, reported greater knowledge of their values

and greater depressed mood, and rated Self-Transcendence as more important than Self-Enhancement compared to males. Participants with a psychiatric diagnosis reported greater depressed mood, lower life satisfaction, emotional wellbeing, and happiness, and that they were happy less of the time and unhappy more of the time compared to those without a psychiatric diagnosis. Participants taking medications reported greater depressed mood, lower emotional wellbeing and happiness, and that they were happy less of the time and unhappy more of the time compared to those not taking medications.

When analysing the links between values and depressed mood, correlation analysis indicated that there were no associations between depressed mood and the importance of values as a whole, or with the Schwartz continua placements, and that the relationships between the PVQ value types and depressed mood provided a mixed picture. However, analysis of the importance of the 10 value types indicated that greater depressed mood was associated with lesser importance of Hedonism, Stimulation and Self-Direction. In addition, greater depressed mood was moderately associated with lower knowledge of values and strongly associated with lower ratings of living in alignment with values.

Regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in depressed mood; however the importance of the 10 specific value types explained a greater amount of the variance. Lesser importance of Self-Direction, and greater importance of Universalism, was associated with greater depressed mood. The Schwartz continua placements explained very little variance in depressed mood, however a small amount of the

variance in depressed mood was associated with lower knowledge of values, and a large amount of the variance in depressed mood with living less in alignment with values.

When comparing individuals with depressed mood with individuals without depressed mood, a greater proportion of depressed individuals were younger, female, foreign, and reported higher rates of psychiatric diagnosis and medication use. Analysis using *t*-tests indicated that the importance of values as a whole was not associated with mood group, and the two values of Achievement and Benevolence were not associated with mood group as hypothesised. However individuals with depressed mood reported lesser importance of Self-Direction, Stimulation, and Hedonism. The Schwartz continua placements were not associated with mood group, but individuals with greater depressed mood reported lesser knowledge of their values and that they were living in alignment with their values less. Analysis using MDS also indicated that the mood groups' values were equally coherent.

In the analysis of the links between values and SWB, correlation analysis indicated that greater importance of values as a whole was associated with greater life satisfaction and with greater emotional wellbeing when assessed with the PVQ, but not when assessed with the importance of values question. Greater life satisfaction was associated with greater importance of Hedonism, Stimulation, Self-Direction, Benevolence, Tradition, Conservatism, and Security, and greater emotional wellbeing was associated with greater importance of Hedonism, Stimulation, Self-Direction, and Benevolence. Greater life satisfaction and emotional wellbeing were also associated with greater Openness-to-Change and with lower Conservation. In

addition, both greater knowledge of values and living in alignment with values were associated with both greater life satisfaction and emotional wellbeing. In addition, the relationships between the PVQ value types and SWB provided a mixed picture and did not mirror original theorising from Schwartz's model.

Regression analysis indicated that the total importance of values as a whole explained a very small amount of the variance in life satisfaction and emotional wellbeing, however the importance of the 10 specific value types explained a greater amount of the variance. Greater importance of Stimulation and Benevolence were associated with greater life satisfaction, and greater emotional wellbeing was associated with greater importance of Benevolence, Hedonism, and Self-Direction, and lesser importance of Universalism. Both Schwartz continua questions explained very little variance in depressed mood, with greater Openness-to-Change and lower Conservation associated with greater life satisfaction and emotional wellbeing. Knowledge of values explained a small amount of the variance in life satisfaction and emotional wellbeing, with greater life satisfaction and emotional wellbeing associated with greater knowledge of values. In addition, living in alignment with values explained a large amount of the variance in life satisfaction and emotional wellbeing, with greater life satisfaction and emotional wellbeing associated with greater living in alignment with values.

A comparison of individuals with high SWB against individuals without high SWB showed that a greater proportion of individuals with high SWB were male, older, from New Zealand, and had lower rates of psychiatric diagnosis and of medication use. Analysis using *t*-tests indicated that the SWBG reported less

Conservation and greater Openness-to-Change, importance of values as a whole, knowledge of their values, and that they were living in alignment with their values more than the Non-SWBG. The SWBG also reported greater importance of Stimulation, Benevolence, Self-Direction and Hedonism compared to the Non-SWBG.

3.6.2 Themes.

Taking the results together, five main themes emerged between values, and depressed mood and SWB. Firstly, in line with Study One, the importance of values as a whole, when assessed with correlations, regressions, and *t*-tests, was not associated with depressed mood. However, correlation analysis indicated that the importance of values was associated with greater life satisfaction and emotional wellbeing, and *t*-tests indicated that participants in the SWBG reported greater importance of values as a whole.

Secondly, the overall pattern highlights the importance of Stimulation, Self-Direction and Hedonism in relation to both depressed mood and SWB. Correlation analysis indicated that greater depressed mood was associated with lesser importance of Stimulation, Self-Direction and Hedonism; regression analysis indicated that greater depressed mood was associated with lesser importance of Self-Direction; and analysis using *t*-tests indicated that participants in the DMG reported less importance of Stimulation, Self-Direction and Hedonism. Relating these findings for depressed mood to those hypothesised, these three value types fall between the two

hypothesised values of Achievement and Benevolence on Schwartz's model; nearer to Openness-to-Change. Regarding SWB, similar results were apparent. Correlation analysis indicated that greater life satisfaction and emotional wellbeing were associated with greater importance of Stimulation, Self-Direction and Hedonism; regression analysis indicated that greater life satisfaction was associated with greater Stimulation, and greater emotional wellbeing was associated with greater Self-Direction and Hedonism; and analysis using *t*-tests indicated that participants in the SWBG reported greater importance of Stimulation, Self-Direction and Hedonism. Relating these findings for SWB to those hypothesised, greater Stimulation was hypothesised to be associated with greater SWB and this was confirmed. However it was expected that lesser Hedonism would be associated with greater SWB whereas greater Hedonism was, and the relationship between Self-Direction and SWB was not hypothesised. However, these results for both depressed mood and SWB are in alignment with original theorising from Schwartz's model.

Thirdly, the overall pattern highlights the importance of Benevolence in relation to SWB, but not to depressed mood. Correlation analysis indicated that greater importance of Benevolence was associated with greater life satisfaction and emotional wellbeing; regression analysis indicated that greater Benevolence was associated with greater life satisfaction; and analysis using *t*-tests indicated that participants in the SWBG reported greater importance of Benevolence[7].

[7] Although the analysis indicated additional results (e.g., that greater depressed mood was associated with greater Universalism, that greater life satisfaction was also associated with greater importance of Tradition, Conformity, and Security, and that lesser importance of Universalism was

Fourthly, the Schwartz continua placements showed little relationship to depressed mood and SWB. The Self-Enhancement/Self-Transcendence continuum showed no relationship with depressed mood or SWB; however the Openness-to-Change/Conservation continuum showed a larger association. In particular, the Openness-to-Change/Conservation continuum was not associated with depressed mood, but it was associated with SWB. Greater Openness-to-Change and lower Conservation was associated with greater life satisfaction and emotional wellbeing when assessed with correlation, regression, and *t*-tests analysis.

Lastly, analysis using correlation, regression and *t*-tests analysis all indicated that greater knowledge of values and greater living in alignment with values were associated with lower depressed mood and greater SWB. In particular, large effect sizes indicated that greater living in alignment with values was associated with much lower depressed mood and much greater SWB.

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associated with greater emotional wellbeing), these did not highlight the same theme that Stimulation, Self-Direction, Hedonism and Benevolence did.

CHAPTER 4: STUDY THREE

4.1 Introduction

Studies One and Two revealed new and strong links between people's values, and their depressed mood and SWB. This fourth chapter outlines the third and last study of this thesis, which extended the investigation into the links between personal values, depressed mood, and SWB. In particular, this study explores how relational aspects of values (knowledge of values, living in alignment with values) relate to changes in depressed mood and SWB over time. This study consisted of a sub-sample of the 173 participants from Study Two who completed a subset of Study Two assessment measures six months after the completion of Study Two. In investigating these relationships, participants completed five measures: two measures of values, two of SWB, and one of depressed mood.

This fourth chapter comprises four main sections. The first section outlines the hypotheses investigated, the second outlines the method, and the third reports the results. The chapter concludes with a summary of the results of this study.

4.2 Aims

The main objective of Study Three was to investigate how peoples' depressed mood and SWB changed over time in relation to their relationships with their values. Specifically the focus was on the links identified as being strong in Study Two: firstly the relationships between knowledge of values and depressed mood and SWB, and

secondly with living in alignment with values with depressed mood and SWB. The aim was also to investigate these relational values variables in combination rather than in isolation.

4.3 Hypotheses

Four hypotheses (H21 to H24) concerned relationships between relational aspects of personal values and with changes in depressed mood and SWB over time. It was predicted that lower knowledge of values and lower living in alignment with values at time one (baseline) would be associated with greater depressed mood at time two (six months) (H21 and H22), and conversely that greater knowledge of values and greater living in alignment with values at time one would be associated with greater life satisfaction and emotional wellbeing at time two (H23 and H24). These hypotheses are outlined in Table 36.

Table 36
Hypotheses Tested in Study Three

Hypothesis	Hypothesis Label	Actual Hypothesis
H21	Knowledge of values and depressed mood.	Knowledge of values at time one would be negatively related with depressed mood at time two.
H22	Living in alignment with values and depressed mood.	Living in alignment with values at time one would be negatively related with depressed mood at time two.
H23	Knowledge of values and SWB.	Knowledge of values at time one would be positively related with SWB at time two.
H24	Living in alignment with values and SWB.	Living in alignment with values at time one would be positively related with SWB at time two.

4.4 Method

4.4.1 Design.

Study Three was an internet study that used five measures from Study Two: the PVQ, CES-DS, SwLS, HM, and the five values questions. These instruments comprised the primary source of data for Study Three (labelled "The Values Study – Follow Up", see Appendix C), and were chosen because they allowed the investigation of how values, depressed mood and SWB had changed over six months for a sub-sample of participants from Study Two.

4.4.2 Participants.

Participants for this study were a sub-sample of participants who had previously completed Study Two, and who were invited to participate via e-mail six months after the completion of Study Two. Of the 492 participants in Study Two, 348 indicated at the completion of Study Two that they could be contacted for a future study. One-hundred-and-seventy-three of those 348 participants (50%) from Study Two who had previously supplied a valid e-mail address volunteered and completed Study Three. Again, all participants had previously indicated that they were over 18 years of age, and that English was their first language.

4.4.2.1 Demographics.

Participants were asked to provide information regarding the same five variables of interest as in Study Two: their gender, age, country, psychiatric diagnosis, and medication usage. This information was requested in order to match data over time, and to assess for changes in country, psychiatric diagnosis and medication use in the previous six months. This information is displayed in Table 37.

Table 37
Demographic Information comparing All 492 Study Two Participants and 173 Study Three Participants

	N		%	
	492 Study Two	173 Study Three	492 Study Two	173 Study Three
Gender				
Male	143	54	29	31
Female	349	119	71	69
Country				
New Zealand	274	106	56	61
United Kingdom	110	27	22	16
Canada	42	16	9	9
United States of America	32	11	6	6
Australia	30	12	6	7
Other	4	1	1	1
Psychiatric diagnosis				
Yes	89	30	18	17
No	403	143	82	83
Medication use				
Yes	107	37	22	21
No	385	136	78	79

Study Three participants' ages ranged from 19 to 76 years, with a mean age of 34.54 (*SD* = 12.14). In Study Two participants' ages ranged from 18 to 75 years, with a mean age of 33.32 (*SD* = 12.31). Further description of how this demographic and additional information was collected is included below in section 4.4.4.

4.4.3 Materials.

The measures in Study Three included the PVQ, CES-DS, SwLS, HM, and five values questions. These measures were outlined in Study One (Section 2.4.3) and Study Two (Section 3.4.3). For Study Three, the PVQ's Cronbach Alpha was .60, the CES-DS Cronbach Alpha was .91, and the SwLS Cronbach Alpha was .86.

4.4.4 Procedure.

The Values Study – Follow Up was advertised through previously supplied e-mail addresses. Similarly to Study Two, Study Three was hosted at www.surveymonkey.com. In order to reach The Values Study – Follow Up, participants clicked on the link www.valuesstudy.com which arrived via an e-mail. They were then redirected to The Values Study – Follow Up hosted at Survey Monkey.

When participants were presented with The Values Study – Follow Up, they firstly read a short information sheet which described the study and their eligibility as a previous participant of Study Two. Similar to Study Two, participants entered information for the same five demographic variables of interest: gender, age, country, psychiatric diagnosis, and medication use. After demographic questions were completed, the measures in Study Three were randomly presented. At the completion of the study, participants were thanked and their data was submitted.

The raw data from the questionnaires was downloaded from Survey Monkey in Microsoft Excel spreadsheet format, and analysis of the data was conducted using the

Statistical Package for the Social Sciences (SPSS 17) (Field, 2005; Miller et al., 2009) and Analysis of Moment Structures software (AMOS) (Blunch, 2008). As the online survey required an answer for each question in order to proceed, data accuracy was 100%, making cross checking for accuracy unnecessary. Unlike Study Two in which five percent of the completed data (n = 25 questionnaires) was not used due to speedy and erratic responding, none of the data in Study Three displayed speedy or erratic responding (e.g., average time taken to complete Study Three was 16 minutes and 4 seconds, SD = 8.12).

The Values Study – Follow Up ran for 49 days, the same length as Study Two, starting on 15 June 2008 and ending on 2 August 2008. No data is available on how many Study Two participants were reached via the recruitment e-mails, so response rates cannot be calculated. However 14 of the 348 e-mail addresses returned invalid or undeliverable notices, making the potential total contacted 362 (96%).

4.5 Results

This section presents analyses of the data from Study Three. A preliminary analysis of the participants followed the same format as in section 3.5.1, with the purpose being to determine if the 173 participants in Study Three differed substantially from the 492 participants in Study Two. These results are not presented here, but showed that Study Three participants did not differ substantially from participants in Study Two as a whole. In other words, the subset of participants from Study Two who volunteered for Study Three were representative of Study Two

participants. Following this, analysis focused on how peoples' depressed mood and SWB changed over time in relation to their relationships with their values. A structural model is used to investigate changes in these variables over time (six months).

4.5.1 Structural model.

To identify possible causal relationships an exploratory structural model was used to test the direction of effect between relational values' variables (knowledge of values, living in alignment with values), and depressed mood (CES-DS) and SWB (HM, SwLS). Preceding this analysis, five paired samples *t*-tests were performed to investigate the effects of time (Time 1 and Time 2) on the five main outcome variables that would be used in the structural model. As shown in Table 38, there were no statistically significant differences in all five *t*-tests.

Table 38
Paired Samples t-tests Between T1 and T2 Participant Responses on the CES-DS, SwLS, HM, Knowledge of Values, and Living in Alignment with Values Questions

	M		*SD*		*t*	*p*	*d*
	T1	T2	T1	T2			
HM scale	7.06	7.08	1.70	1.61	.862	.778	-.01
SwLS	23.82	24.02	6.30	6.13	-.603	.548	-.03
CES-DS	11.08	11.16	9.35	9.04	-.132	.895	-.01
VKnow	8.05	7.97	1.25	1.38	.862	.390	.06
VLive	7.57	7.49	1.48	1.42	.779	.437	.05

Note. HM scale = Happiness Measures scale question. SwLS = Satisfaction with Life Scale. CES-DS = Centre for Epidemiological Studies Depression Scale. Vknow = Knowledge of Values. Vlive = Living in Alignment with Values.

Following this, an exploratory approach was adopted where initially all path stabilities and cross-lag paths were included in the structural model, and then non-significant paths were pruned (Kline, 2005). An exploratory approach was adopted for two reasons. Firstly, a longer time frame (six months) was expected to enable additional significant cross-lag paths to be identified; and secondly, different causal relationships may exist between values, mood and wellbeing when relational aspects of values are considered separately. A direction of effect model was thus conducted involving relational values' variables, depressed mood, and SWB in an attempt to identify possible causal relationships.

The initial exploratory model included five observed variables (HM scale, SwLS total, CES-DS total, knowledge of values, and living in alignment with values)

at two time points: baseline and six months later. All observed variables were allowed to correlate concurrently at both baseline and follow up. Regarding the structural pathways, five stability pathways (one for each observed variable) were estimated. Each baseline observed variable was also allowed to predict the remaining four observed variables at follow up. In total 25 structural pathways were stipulated.

Results of this base model indicated that all stability coefficients (i.e., correlations between two measurements of the same variable at two different points in time) were significant ($\beta = .45$ to $.64$, $p < .001$). One cross-lag path was significant: baseline living in alignment with values to later life satisfaction ($\beta = .14$, $p < .02$). The cross-lag path from baseline knowledge of values to later living in alignment with values was marginal ($\beta = .14$, $p = .05$), as was the cross-lag path from baseline living in alignment with values to later knowledge of values ($\beta = .14$, $p = .05$). However, the unpruned model did not fit these data well.

Next, the model was pruned with each non-significant path removed individually, beginning with the least significant first to the most significant last, until all remaining paths were significant at the $p < .05$ level. At each stage of the model pruning process, fluctuations in beta weights, phis, and error terms were assessed to ensure multicollinearity was not a large problem. The pruning process took 14 steps, and the pruned model fitted the data well, $X^2/df = .491$, $p = .943$, CFI = 1.00, SRMR = .02, RMSEA = .001. The pruned model is shown in Figure 19.

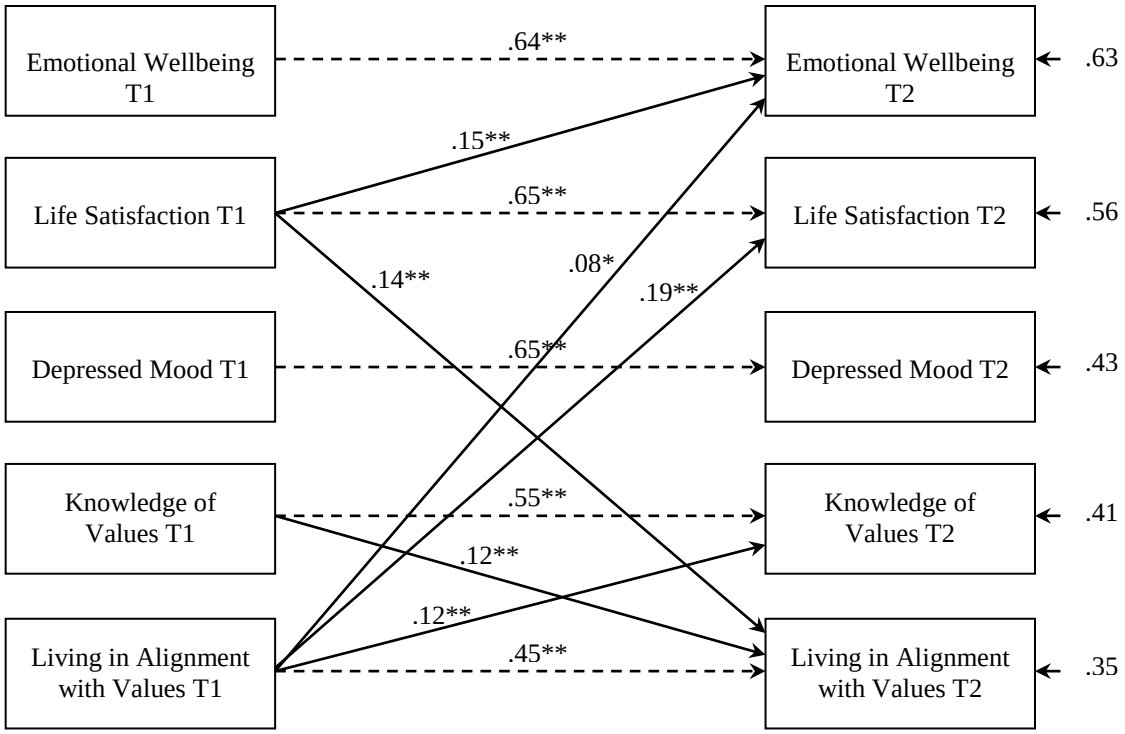

Figure 19. Pruned direction of effect model across six months.
Standardised stability coefficients are indicated by dashed lines, remaining lines are standardised regression coefficients (betas).
*p < .05, **p < .01.

The direction of effect model showed that the five observed variables are relatively stable over time and that reciprocal relationships were observed between living in alignment with values and knowledge of values, and between living in alignment with values and life satisfaction (H24). In addition, emotional wellbeing was predicted by both living in alignment with values (H24) and life satisfaction. Knowledge of values at time one did not predict either life satisfaction or emotional wellbeing at time two (H23). Depressed mood at time two was not predicted by either knowledge of values (H21) or living in alignment with values (H22) at time one.

4.6 Results summary

Study Three participants did not differ substantially from Study Two participants, and were relatively representative of Study Two participants as a whole. Structural equation modelling suggested that when relational aspects of values are considered separately and at the same time, there exist causal relationships between living in alignment with values and life satisfaction, and although this relationship is reciprocal, the stronger direction of effect between variables was from values to later SWB. There was also a weaker causal relationship between living in alignment with values and emotional wellbeing, with the direction of effect leading from values to later SWB, but not vice versa. In addition, relational values variables at time one were not related to depressed mood at time two as hypothesised.

CHAPTER 5: DISCUSSION

5.1 Overview

This chapter discusses findings from this research in relation to the literature on depressed mood and SWB. Initially, a summary of the research (questions, methods) is presented, followed by discussion of the results. Next, strengths of this research are highlighted, and implications for the areas of clinical and positive psychology are considered. Following this, limitations are outlined and directions for future research are suggested. This chapter ends with an overall summary.

5.2 Research summary

The current research investigated relationships between the types and coherence of people's values, and their depressed mood and SWB. It also examined relational aspects of values (the degree to which people view values as important, are satisfied with their values, know what their values are, and live their life in alignment with their values) and their association with depressed mood and SWB. In a series of three studies, one smaller New Zealand paper-based study and two larger international internet based studies, the variables of personal values, depressed mood and SWB were assessed through a range of psychometric measures (BDI-II, CES-DS, CES-DS-4IH, HM, SwLS, SHS, SVS, SSVS, CS-SSVS, PVQ and values questions). Analysis indicated strong links between both the importance of particular value types and

depressed mood and SWB, and with people's relationships with their values and with depressed mood and SWB.

5.3 Discussion of findings

Cumulatively the results from these studies re-orientate our thinking towards an increased utility for the notion of values in the areas of clinical and positive psychology. The results indicate that both the content and relational aspects of values are related in varying strengths to depressed mood and SWB[8]. This knowledge offers a distinctive and fruitful contribution to our understanding of these phenomena, and a potential path for both treating depression and increasing SWB.

The following section integrates key findings from these studies in discussing firstly the content of values in relation to depressed mood, and secondly relational aspects of values in relation to depressed mood. Following this, the content of values in relation to SWB, and then relational aspects of values in relation to SWB, is discussed.

5.3.1 Values and mood.

5.3.1.1 Values' types and depressed mood.

[8] Although not a focus on this research, the curious reader may be interested the relationships between depressed mood and SWB, and thus correlations between these variable are presented in Appendix D.

Study Two results found that greater depressed mood was associated with lesser importance of Self-Direction, Stimulation and Hedonism, and these results fit theorising from Schwartz's model well. This was different from Study One which found that greater depressed mood was associated with lesser importance of Achievement and Benevolence, which contradicted theorising from Schwartz's model. The unexpected Study One result may have been because of the small sample size (n = 103), because value reliability coefficients were slightly lower than the reported literature (i.e., Study One SSVS = .24 to .54), or because a larger than expected proportion of Study One participants had English as their second language (26%) and may have struggled with the assessment measures. The small sample and group sizes (e.g., n = 15 in the DMG in Study One) alone means that caution is required in interpreting the results due to the possibility of Type 1 error. For that reason more confidence is placed in the results from Study Two which had a much larger and more representative sample.

Researchers have tentatively identified that the value types of Self-Direction, Benevolence, Universalism, Achievement and Stimulation contribute positively to mental health, whereas the value types of Conformity, Tradition, Security and Power are detrimental and considered unhealthy - although "data to support these speculations is sparse" (Sagiv & Schwartz, 2000, p. 180). The current research confirms the association between the two value types of Self-Direction and Stimulation with less depressed mood, and also includes the value of Hedonism. However, it did not find that Universalism, Benevolence or Achievement were associated with less depressed mood.

It was also interesting that values located towards Conservation (Security, Tradition, Conformity) did not relate to depressed mood as hypothesised. According to Schwartz's theory, associations of values with depressed mood should have decreased monotonically in both directions around Schwartz's circular model from the most positively (Tradition) to the most negatively associated value (Stimulation). This was not the case. Only values located toward Openness-to-Change displayed this pattern; i.e., it did not appear that depressed individuals were subordinating themselves in favour of social expectations. In addition, analysis also indicated that there were no major deviations in the coherence of values between individuals with and without depressed mood, meaning coherence *per se* was not of major significance.

According to Schwartz's theory (1992), more important values meet more pressing needs. Schwartz and Bardi (1997) argued that people adapt their values to their life circumstances; people upgrade the importance they attribute to values they can readily attain, and downgrade the importance of values they cannot. Putting the current results into a clinical context, it is possible that individuals with depressed mood may be downgrading the importance of Self-Direction, Stimulation and Hedonism (especially females: see Feather, 1984, or Schwartz & Rubel, 2005) believing that they cannot readily attain them. Thus, individuals with depressed mood may need and benefit more from assistance that allows them more autonomy, choice and control, creativity, and exploration (Self-Direction), more excitement, novelty, variety, and challenge (Stimulation), and more pleasure and sensuous gratification (Hedonism). The more central, predominant and currently popular psychotherapies

(e.g., CBT, Behavioural Activation, IPT) provide activities that are most in line with the value of Self-Direction (e.g., activity scheduling, goal setting, behavioural experiments), but not with Stimulation or Hedonism values. Targeting the realisation of these three Openness-to-Change type values (Self-Direction, Stimulation, Hedonism) through providing different life experiences may be clinically valuable in ameliorating depressed mood, whereas targeting Self-Enhancement, Self-Transcendence or Conservation type values may not be as valuable in reducing depressed mood.

5.3.1.2 Relational aspects of values and depressed mood.

Of the four relational aspects investigated (importance of values, satisfaction with values, knowledge of values, living in alignment with values), results suggested that importance of values was not associated with depressed mood. In other words, people with and without depressed mood attributed similar importance to their values. Thus, getting depressed individuals to view their values as important, as is the case with 'values clarification', may be a necessary, but not sufficient, approach for decreasing depressed mood. Instead, the results indicate that being satisfied, knowing values, and living in alignment with values were associated with less depressed mood. The association between living in alignment with values and depressed mood was particularly strong (i.e., in Study Two, $r = -.45$, $p < .01$). This is consistent with researchers such as Wilson and Murrell, who described individuals with a high discrepancy between rated importance and rated consistency of values as expressing a

“lot of distress” (2004, p. 136). In addition, many of the postulated causes of depression (e.g., negative life events and traumas, poor coping resources and skills deficits, low engagement in pleasant activities, avoidant coping mechanisms) seem to prevent an individual from living in alignment with their values.

Previously, it was uncertain if it is necessary for a person to first know their values, attribute importance to them or be satisfied with them, before they can live their life in alignment with them. Study One established a clear link between greater current satisfaction with values and less depressed mood. Study Two established clear links between greater knowledge of values and living in alignment with values, and with less depressed mood. However, Study Three found that depressed mood at time two was not predicted by either knowledge of values or living in alignment with values at time one. This finding is surprising in light of the findings from Study Two linking depressed mood with both knowledge of values and living in alignment with values. This finding may be due to the small sample size (i.e., Type 1 error) or of the ability to detect effects over a six month time period.

Putting these results into a clinical context, it is noted the literature has focused mostly on ‘values clarification’, whilst giving little weight to actualising values once clarified. Henderson (2003) has pointed out that it is an assumption that priority values have a significant impact on behaviour. Results suggest that this assumption is flawed; importance of values does not significantly impact on mood or wellbeing. Instead, knowledge of values, and to a greater extent, and living in alignment with values, does. Although the main therapeutic approaches do not focus on values, the contemporary approach of ACT focuses specifically on this relation aspect (Hayes et

al., 1999); assisting clients to live in alignment with their values. These results further corroborate and substantiate ACT's focus and approach in assisting clients to live in alignment with their values.

5.3.2 Values and wellbeing.

5.3.2.1 Values' types and subjective wellbeing.

Study Two results found that greater SWB was associated with greater importance of Self-Direction, Stimulation, Hedonism, and also greater Benevolence. With the exception of Benevolence, these results both mirror findings regarding depressed mood, and fit theorising from Schwartz's model well. The overall pattern highlighted the importance of Benevolence in relation to SWB, but not in relation to depressed mood. If Benevolence values derive from the need for affiliation and smooth group functioning, then social contact is important for obtaining increased SWB. Indeed, social contact has recently been related to greater SWB (Christakis & Fowler, 2009). This finding also sits well with Fredrickson's (2001) 'Broaden and Build' theory of positive emotions, which postulates that depression promotes survival orientated behaviour, whereas positive emotions (SWB) broaden awareness and build skills. The survival orientated behaviour of individuals with greater depressed mood may be Self-Enhancing, whereas the behaviour of individuals with high SWB may be more Self-Transcendent, and in particular, Benevolent. Put in a positive psychology context, one route to increased SWB may be through increased

personal contact that focuses on the preservation and enhancement of the welfare of people one knows (e.g., family, friends, colleagues). This could be though avenues such as being helpful, honest, and loyal in relationships, or by embracing forgiveness. Lack of Benevolence (i.e., personal connection) may also explain why some groups have very low SWB (e.g., prison inmates, divorced individuals, sex workers, and individuals with various health concerns).

Interestingly results were contrary when SWB was assessed via cognitive and affective components. Although there is scant research, findings in the literature to date have indicated that Achievement, Self-Direction, Stimulation, Tradition, Conformity and Security values are correlated with the affective component of SWB, but not with the cognitive component (Sagiv & Schwartz, 2000). However, life satisfaction tends to be generally stable since it reflects a summary of judgements about feelings (Diener, 2000). The current research indicated that Self-Direction and Stimulation were positively correlated with the affective component of SWB, but also that greater Hedonism and Benevolence and lesser Universalism also were. However, contrary to existing literature, Tradition, Conformity, Achievement and Security were not associated with the affective component of SWB. More importantly, more associations were found between the cognitive component of SWB and values than for the affective component; greater life satisfaction was associated with greater Self-Direction, Stimulation, Hedonism, Benevolence, Tradition, Conformity, and Security. This is important because people vary more in their ability to experience positive emotion compared to life satisfaction. For example, introverts are much less likely to experience positive emotion compared to extroverts (Hills & Argyle, 2001).

5.3.2.2 Relational aspects of values and subjective wellbeing.

Of the four relational aspects investigated (importance of values, satisfaction with values, knowledge of values, living in alignment with values), results suggest that importance of values is not associated with SWB. In other words, similar to people with and without depressed mood, people with high SWB do not attribute more importance to their values compared to people without high SWB. Instead, the results suggest that being satisfied, knowing values, and living in alignment with values is associated with greater SWB. The association between living in alignment with values more and greater SWB was particularly strong (i.e., in Study Two, r = .48, p < .01, for life satisfaction, and r = .41, p < .01, for emotional wellbeing). Study One established a clear link between greater current satisfaction with values and greater SWB. Study Two established clear links between greater knowledge of values and living in alignment with values, and with greater SWB. Study Three established a causal and reciprocal relationship between living in alignment with values and life satisfaction, with the stronger direction of effect being from living in alignment with values to life satisfaction. There was also a causal relationship between living in alignment with values and emotional wellbeing, with the direction of effect leading from living in alignment with values to later emotional wellbeing, but not *vice versa*. This finding, that emotional wellbeing does not lead to living in alignment with values, has implications for creating values interventions. In addition, there was no causal relationship between knowledge of values and SWB. This finding is surprising

in light of the findings from Study Two linking SWB with knowledge of values, and may be due to the small sample size (i.e., Type 1 error) or of the ability to detect effects over a six month time period.

In the context of positive psychology, current interventions such as using psychological strengths, being curious, finding flow, and being connected, do not focus on actualising values. The two interventions which come closest are the two known to be most strongly related to greater SWB (discovering meaning in life and expressing gratitude); it is possible that these interventions may be implicitly assisting individuals to live in alignment with their values. The current research has several implications for positive psychology interventions, and wholesale approaches (e.g., Quality of Life Therapy) that aim to increase SWB. These interventions may be more effective if combined with assisting people to live their lives in alignment with their values because this component in particular accounts for a large effect on SWB.

5.4 Strengths and implications of this research

5.4.1 Strengths.

Importantly, this research was based on the most theoretical and empirically supported model of values (Schwartz's model). In doing so, these findings add to, and are comparable against, this developing values literature. These studies also controlled for a number of potentially confounding variables (e.g., age, gender) identified as important in the literature, and used both national and international

samples, and student and general population samples. In addition, psychometric measures utilised are well recognised scales with well established validity and reliability. These aspects in combination allowed for a comprehensive test of the associations between values, mood and wellbeing variables.

5.4.2 Implications.

Few studies of values have been conducted in the areas of clinical and positive psychology. The current thesis provides valuable new insights into the dynamics of values in these fields, and the mechanisms by which they may be useful. Knowing that depressed mood is associated with lesser Self-Direction, Stimulation and Hedonism, and with less satisfaction, knowledge, and living in alignment with values, provides the opportunity to develop and test new values based assessments and interventions in psychotherapy. Current assessments and treatments for depression are expensive; short-term values-based interventions may be a more cost effective alternative or adjunct treatment to current psychological treatments or medications. Short-term values-based interventions may also improve treatment efficacy rates for depression, and thus improve important individual and social outcomes. The results support the various contemporary psychotherapies (e.g., ACT, MI, SDT) in their drive to incorporate and use the notion of values. These findings may also lead to the development of a new conceptualisation of depression that incorporates the importance of the notion of values. However, given that psychologists often employ cursory understandings of personal values (Hitlin & Piliavin, 2004; Rohan, 2000),

coupled with the general lack of focus on values, in order to make these findings practical helping professionals will need psycho-education about values; in particular, how values relate to mood and wellbeing. This thesis is a valuable resource in aiding understanding of these associations.

These findings also have implications for the new and developing field of positive psychology; perhaps more so than for the field of clinical psychology. In comparison to the field of clinical psychology where more is known about the differences between depressed and non-depressed people, much less is known in the field of positive psychology about the differences between people who are thriving and flourishing compared to those who are not. Knowing the importance of Self-Direction, Stimulation, Hedonism, and Benevolence values, and the importance of having values satisfied, knowing values and living in alignment with values, provides the potential for new values-based assessment and interventions to increase SWB.

5.5 Limitations of this research

Firstly, all studies relied on self-report measures. Self-report measurement is subject to the same biases as other self-report methods (e.g., memory biases: Schuman, 1995), and are not necessarily valid indicators of an underlying phenomenon. Further verification of the self-report data through adjunct methods was not undertaken. Although considerable evidence exists to support both the use of such measures and their high correlation with objective measures (e.g., Sandvik, Diener, & Seidlitz, 1993), the use of friends or family members' ratings or reports would have

further supplemented the present findings. Investigating the basis on which respondents made their judgements would also have been beneficial. These approaches would have provided additional validity of the self-report measures used, but was not possible within the scope of this research.

Secondly, the design of the studies did not account for context. Hiltin and Piliavin (2004) have noted the importance of the social context of values, and Schwartz's model highlights the difficulty in concurrently following values which can be in conflict depending on the situation. However the context of values was not assessed in the current studies[9].

Thirdly, most scholars assume values to be relatively stable across the life course after being shaped through late adolescence (Rokeach, 1973). However this is an empirical question and it is unclear how stable values are. Structural equation modelling (i.e., Figure 19) indicated that relational aspects are relatively stable, however it unclear if value types are or if six months is an appropriate time frame to detect effects for values, limiting generalisation.

Lastly, there were a range of methodological limitations. In particular, Study One had small sample and group sizes. Due to convenience sampling Study One also had a large number of students and participants with English as a second language. Study Two, on the other hand, had a large proportion of females (71%) and New

[9] Many additional aspects of values could have also been a focus of this thesis, but were excluded from consideration. These include questions regarding the origins of values (see Peterson, 2006); the mechanisms though which values are acquired (see Hechter, 1993); the possible choice of values (Rohan, 2000); if and how value change is possible and with what effects (see Rokeach, 1973); and which values lead to which behaviours and to what degree they are congruent (see Bardi & Schwartz, 2003). These important questions were excluded as they were not central to this thesis's research aims.

Zealand participants (56%). The studies did not have a large number of older participants, and excluded individuals under the age of 18. A stratified sampling procedure would have been preferable. In addition, relational aspects of values were mostly assessed using one item measures, which are problematic in that any response to a single question contains some amount error (Field, 2005). These aspects make the generalisation of values difficult.

5.6 Future research directions

Several exciting directions for future research are feasible:

1. More thorough ways to assess relational aspects of values are needed. Given that values play a role in depressed mood and SWB, there is a potential to develop a contemporary, clinically relevant, culturally specific, and practical assessment measure for reliably and validly assessing relational aspects of values (i.e., satisfaction with, knowledge of, living in alignment with). Whilst current measures, such as the 40 item PVQ, may be appropriate for clinical settings, they do not assess relational aspects of values.

2. Further research investigating the relationship between the importance of particular value types and relational aspects of values is advisable. For example, is living in alignment with values as a whole important, or is living in alignment with particular values (such as Self-Direction, Stimulation, Hedonism or

Benevolence) more important for ameliorating depressed mood and increasing SWB? Given that Verplanken and Holland (2002) have demonstrated that priming values impacts on subsequent behavioural decisions, the effect of actualising these four values in particular ought to be assessed.

3. A randomised control trial comparing CBT, ACT, values clarification, assisting individuals to live in alignment with their current values, and assisting individuals to live in alignment with values known to be important for greater wellbeing and less depressed mood (Self-Direction, Stimulation, Hedonism) would be useful. This trial could also use individuals diagnosed with depression rather than individuals with high depressed mood, and also more representative cross-cultural samples. The aim here would be to investigate the overall efficacy of these approaches in alleviating depressed mood through the use of values. This type of investigation may well lead to developing a values-based intervention, or indeed a values-based therapy, for treating depressed mood[10].

4. Important conceptual relationships between values and other common notions, such as beliefs or thoughts, remain unclear; for example, do values influence beliefs or vice versa? Although the current study focuses on a different type of individual difference variable (personal values), further research could

[10] In addition, the evidence regarding the prevention of depression is not conclusive, with only a few isolated studies showing that interventions for the prevention of depression are effective (WHO, 2005). Values-based assessments and interventions may also provide a preventive measure protecting against the development of depressed mood.

investigate how values relate to more central concepts in the fields of clinical and positive psychology. For example, values seem conceptually similar to the notion of a schema, defined as "well-organised structure(s) of cognitions about some social entity such as a person, group, role or event" (Michener, DeLamater, & Myers, 2004, p. 107). The exact differences, however, are unclear.

5. How people view the future satisfaction of their values may also be important. Depressed individuals typically have a negative view of the future (Beck, 1995). They view their future as hopeless and believe that their efforts will be inadequate in changing their future (Beck, 1976). It is possible that people with depressed mood may anticipate having less of their important values satisfied or actualised in the future compared to people without depressed mood. Thus, research investigating whether depressed mood may be the result of anticipating having few important values satisfied in the future is theoretically important.

5.7 Overall summary

As Bergin et al. noted, "despite the increased recognition of the importance of values…the profession still has much room for progress in this domain" (1996, p. 300) and that "it is the work of the next decade to more clearly specify the impact of given values" (1996, p. 317). This research took up this challenge by beginning this

process in relation to depressed mood and SWB. The advances in understanding of these aspects offer the potential for reincorporation of the notion of values into the fields of clinical and positive psychology. The key messages are that particular values, and people's relationships with their values, have important effects on their mood and wellbeing. This research serves as a solid foundation upon which to base future research in these lucrative areas. This research provides important new knowledge surrounding the relationship between personal values, and depressed mood and SWB.

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APPENDICES

A – Study One: The Important Values Study

Information Sheet – The Important Values Study.

Psychology Department: University of Canterbury

Aaron Jarden,
PhD candidate, Department of Psychology
Psychology Building, Office 474, Private Bag 4800 Christchurch
Ph. 03 366 7001 (ext 8083), aaron@jarden.co.nz

Important Values

You are invited to take part in a study on values. The aim of this study is to learn more about which values are important to people, and just how important they are.

If you are involved in this study, you will be asked to answer a series of short questionnaires on various topics, including values, mood and general mental health. These tasks should take approximately 20 to 25 minutes.

It is anticipated that there are no harmful effects or resulting discomfort from doing any of these tasks. There are also no correct answers as we are simply interested in your opinions.

Please note that taking part in this study is voluntary, and that you can withdraw at any stage and withhold any information you have provided. The results of this study may be published, but only in a form that ensures that you cannot be identified, assuring strict confidentiality.

In return for your participation, you will receive an Instant Kiwi ticket.

If you would like to participate in this study, please contact Aaron Jarden by either office, phone or e-mail: Office 474 Psychology Department, aaron@jarden.co.nz, or 366 7001 extension 8083.

This study is conducted by Aaron Jarden (PhD candidate), under the supervision of Professor Simon Kemp. Professor Kemp can also be contacted at: simon.kemp@canterbury.ac.nz. Both Aaron and Professor Kemp are happy to discuss any concerns you may have regarding this study.

This project has been approved by the University of Canterbury Human Ethics Committee.

Consent Form – Important Values Study.

Research copy

I have read and I understand the information sheet provided for volunteers participating in this study on 'important values'. The nature and purpose of this study has been explained to me, and I have had the opportunity to discuss and ask questions about this study, and I am happy with the answers given to me.

I understand that I have the right to know what will happen to the data from this study, and I have the right to request information about the outcome of the study. I recognise that my participation in this study and the information I provide is confidential and that no material that could identify me will be used in any reports on this study.

I understand that taking part in this study is voluntary and that I can withdraw at any stage.

I _____(full name) herby agree to take part in this study on 'important values'.

Signature:_____

Date:_____

This study is conducted by Aaron Jarden (PhD candidate), under the supervision of Professor Simon Kemp. Aaron Jarden can be contacted at aaron@jarden.co.nz, or on (03) 366 7001, extension 8083. Professor Kemp can also be contacted at: simon.kemp@canterbury.ac.nz. Both Aaron and Professor Kemp are happy to discuss any concerns you may have regarding this study.

If you need to talk further to a mental health professional:

For immediate assistance: Psychiatric Emergency Services (0800 930092)
For non-immediate assistance: The Psychology Centre (03 3439627)

This project has been approved by the University of Canterbury Human Ethics Committee.

Consent Form – Important Values.

Participant copy

I have read and I understand the information sheet provided for volunteers participating in this study on 'important values'. The nature and purpose of this study has been explained to me, and I have had the opportunity to discuss and ask questions about this study, and I am happy with the answers given to me.

I understand that I have the right to know what will happen to the data from this study, and I have the right to request information about the outcome of the study. I recognise that my participation in this study and the information I provide is confidential and that no material that could identify me will be used in any reports on this study.

I understand that taking part in this study is voluntary and that I can withdraw at any stage.

I _____(full name) herby agree to take part in this study on 'important values'.

Signature:_____

Date:_____

This study is conducted by Aaron Jarden (PhD candidate), under the supervision of Professor Simon Kemp. Aaron Jarden can be contacted at aaron@jarden.co.nz, or on (03) 366 7001, extension 8083. Professor Kemp can also be contacted at: simon.kemp@canterbury.ac.nz. Both Aaron and Professor Kemp are happy to discuss any concerns you may have regarding this study.

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For immediate assistance: Psychiatric Emergency Services (0800 930092)
For non-immediate assistance: The Psychology Centre (03 3439627)

This project has been approved by the University of Canterbury Human Ethics Committee.

Demographic and Other Information

This sheet mainly asks about your background. This information will help us determine how representative our sample is relative to the population that we are sampling from and, as a result, highlight potential limitations of our research. *Your individual information will be kept strictly confidential.*

Our demographic sheet also asks about any medications you might be taking. As a number of medications may influence questionnaire responses, it would be useful for us to know whether you are taking medications that may have such an effect.

Gender (tick one): _____ Male _____ Female

Age: _____

Language: Is English your first language?

Yes ☐ No ☐

New Zealand University Student: Are you currently a New Zealand university student?

Yes ☐ No ☐

Psychiatric history: Please give brief details of any previous psychiatric diagnosis:

_____

Also, have you ever received a diagnosis of a mood disorder?

Yes ☐ No ☐

Medical Issues: Are you currently suffering from or experiencing any medical illness?

Yes ☐ If Yes, please specify: _____
No ☐

OTHER:

Once this study is completed, would you like to receive information about the results of the study?

Yes ☐ If Yes, please specify an e-mail address: _____
No ☐

SVS

In this questionnaire you are to ask yourself: "What values are important to ME as guiding principles in MY life, and what values are less important to me?". There are two lists of values below. These values come from different cultures. In the parentheses following each value is an explanation that may help you to understand its meaning.

Your task is to rate how important each value is for you as a guiding principle in your life. Use the rating scale below:

0--means the value is not at all important, it is not relevant as a guiding principle for you.
3--means the value is important.
6--means the value is very important.

The higher the number (0, 1, 2, 3, 4, 5, 6), the more important the value is as a guiding principle in YOUR life.

-1 is for rating any values opposed to the principles that guide you.
7 is for rating a value of supreme importance as a guiding principle in your life; ordinarily there are no more than two such values.

In the box before each value, write the number (-1,0,1,2,3,4,5,6,7) that indicates the importance of that value for you, personally. Try to distinguish as much as possible between the values by using all the numbers. You will, of course, need to use numbers more than once.

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:

opposed to my values	not important			important			very important	of supreme importance
-1	0	1	2	3	4	5	6	7

Before you begin, read the values in List 1, choose the one that is most important to you and rate its importance. Next, choose the value that is most opposed to your values and rate it -1. If there is no such value, choose the value least important to you and rate it 0 or 1, according to its importance. Then rate the rest of the values in List 1.

VALUES LIST 1

☐ Equality (equal opportunity for all)

☐ Inner harmony (at peace with myself)

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:

opposed to my values	not important			important			very important	of supreme importance
-1	0	1	2	3	4	5	6	7

☐ Social power (control over others, dominance)

☐ Pleasure (gratification of desires)

☐ Freedom (freedom of action and thought)

☐ A spiritual life (emphasis on spiritual not material matters)

☐ Sense of belonging (feeling that others care about me)

☐ Social order (stability of society)

☐ An exciting life (stimulating experiences)

☐ Meaning in life (a purpose in life)

☐ Politeness (courtesy, good manners)

☐ Wealth (material possessions, money)

☐ National security (protection of my nation from enemies)

☐ Self-respect (belief in one's own worth)

☐ Reciprocation of favors (avoidance of indebtedness)

☐ Creativity (uniqueness, imagination)

☐ A world at peace (free of war and conflict)

☐ Respect for tradition (preservation of time-honored customs)

☐ Mature love (deep emotional and spiritual intimacy)

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:

opposed to my values	not important			important			very important	of supreme importance
-1	0	1	2	3	4	5	6	7

☐ Self-discipline (self-restraint, resistance to temptation)

☐ Detachment (from worldly concerns)

☐ Family security (safety for loved ones)

☐ Social recognition (respect, approval by others)

☐ Unity with nature (fitting into nature)

☐ A varied life (filled with challenge, novelty, and change)

☐ Wisdom (a mature understanding of life)

☐ Authority (the right to lead or command)

☐ True friendship (close, supportive friends)

☐ A world of beauty (beauty of nature and the arts)

☐ Social justice (correcting injustice, care for the weak)

* * * * *

VALUES LIST 2

Now rate how important each of the following values is for you as a guiding principle in YOUR life. These values are phrased as ways of acting that may be more or less important for you. Once again, try to distinguish as much as possible between the values by using all the numbers.

Before you begin, read the values in List 2, choose the one that is most important to you and rate its importance. Next, choose the value that is most opposed to your values, or if there is no such value, choose the value least important to you, and rate it -1, 0, or 1, according to its importance. Then rate the rest of the values.

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:

opposed to my values	not important			important			very important	of supreme importance
-1	0	1	2	3	4	5	6	7

☐ Independent (self-reliant, self-sufficient)

☐ Moderate (avoiding extremes of feeling and action)

☐ Loyal (faithful to my friends, group)

☐ Ambitious (hardworking, aspiring)

☐ Broad-minded (tolerant of different ideas and beliefs)

☐ Humble (modest, self-effacing)

☐ Daring (seeking adventure, risk)

☐ Protecting the environment (preserving nature)

☐ Influential (having an impact on people and events)

☐ Honoring of parents and elders (showing respect)

☐ Choosing own goals (selecting own purposes)

☐ Healthy (not being sick physically or mentally

☐ Capable (competent, effective, efficient)

☐ Accepting my portion in life (submitting to life's circumstances)

☐ Honest (genuine, sincere)

☐ Preserving my public image (protecting my "face")

☐ Obedient (dutiful, meeting obligations)

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:

opposed to my values	not important			important			very important	of supreme importance
-1	0	1	2	3	4	5	6	7

☐ Intelligent (logical, thinking)

☐ Helpful (working for the welfare of others)

☐ Enjoying life (enjoying food, sex, leisure, etc.)

☐ Devout (holding to religious faith and belief)

☐ Responsible (dependable, reliable)

☐ Curious (interested in everything, exploring)

☐ Forgiving (willing to pardon others)

☐ Successful (achieving goals)

☐ Clean (neat, tidy)

SSVS

Rate the importance of the following values as a life-guiding principle for you. Use the following scale for rating each value using scale:

0 1 2 3 4 5 6 7 8
in which:

0= opposed to my principles
1= not important
4= important
8= of supreme importance

1. POWER (social power, authority, wealth)	0 1 2 3 4 5 6 7 8
2. ACHIEVEMENT (success, capability, ambition, influence on people and events)	0 1 2 3 4 5 6 7 8
3. HEDONISM (gratification of desires, enjoyment in life, self-indulgence)	0 1 2 3 4 5 6 7 8
4. STIMULATION (daring, a varied and challenging life, an exciting life)	0 1 2 3 4 5 6 7 8
5. SELF-DIRECTION (creativity, freedom, curiosity, independence, choosing one's own goals)	0 1 2 3 4 5 6 7 8
6. UNIVERSALISM (broad-mindedness, beauty of nature and arts, social justice, a world at peace, equality, wisdom, unity with nature, environmental protection)	0 1 2 3 4 5 6 7 8
7. BENEVOLENCE (helpfulness, honesty, forgiveness, loyalty, responsibility)	0 1 2 3 4 5 6 7 8
8. TRADITION (respect for tradition, humbleness, accepting one's portion in life, devotion, modesty)	0 1 2 3 4 5 6 7 8
9. CONFORMITY (obedience, honoring parents and elders, self-discipline, politeness)	0 1 2 3 4 5 6 7 8
10. SECURITY (national security, family security, social order, cleanliness, reciprocation of favours)	0 1 2 3 4 5 6 7 8

CS SSVS

In the previous task we asked you to think about what your values are. Now think about how satisfied you are with your current values and rate your satisfaction with each value.

Use the following scale for rating you satisfaction for each value:

0 1 2 3 4 5 6 7 8
in which:

0 = Completely unsatisfied
8 = Completely satisfied

1. POWER (social power, authority, wealth)	0 1 2 3 4 5 6 7 8
2. ACHIEVEMENT (success, capability, ambition, influence on people and events)	0 1 2 3 4 5 6 7 8
3. HEDONISM (gratification of desires, enjoyment in life, self-indulgence)	0 1 2 3 4 5 6 7 8
4. STIMULATION (daring, a varied and challenging life, an exciting life)	0 1 2 3 4 5 6 7 8
5. SELF-DIRECTION (creativity, freedom, curiosity, independence, choosing one's own goals)	0 1 2 3 4 5 6 7 8
6. UNIVERSALISM (broad-mindedness, beauty of nature and arts, social justice, a world at peace, equality, wisdom, unity with nature, environmental protection)	0 1 2 3 4 5 6 7 8
7. BENEVOLENCE (helpfulness, honesty, forgiveness, loyalty, responsibility)	0 1 2 3 4 5 6 7 8
8. TRADITION (respect for tradition, humbleness, accepting one's portion in life, devotion, modesty)	0 1 2 3 4 5 6 7 8
9. CONFORMITY (obedience, honoring parents and elders, self-discipline, politeness)	0 1 2 3 4 5 6 7 8
10. SECURITY (national security, family security, social order, cleanliness, reciprocation of favours)	0 1 2 3 4 5 6 7 8

PVQ (Male Version)

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Put an **X** in the box to the right that shows how much the person in the description is like you.

	HOW MUCH LIKE YOU IS THIS PERSON?					
	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	☐	☐	☐	☐	☐	☐
2. It is important to him to be rich. He wants to have a lot of money and expensive things.	☐	☐	☐	☐	☐	☐
3. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.	☐	☐	☐	☐	☐	☐
4. It's very important to him to show his abilities. He wants people to admire what he does.	☐	☐	☐	☐	☐	☐
5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	☐	☐	☐	☐	☐	☐
6. He thinks it is important to do lots of different things in life. He always looks for new things to try.	☐	☐	☐	☐	☐	☐
7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.	☐	☐	☐	☐	☐	☐
8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	☐	☐	☐	☐	☐	☐
9. He thinks it's important **not** to ask for more than what you have. He believes that people should be satisfied with what they have.	☐	☐	☐	☐	☐	☐
10. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	☐	☐	☐	☐	☐	☐
11. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.	☐	☐	☐	☐	☐	☐
12. It's very important to him to help the people around him. He wants to care for their well-being.	☐	☐	☐	☐	☐	☐
13. Being very successful is important to him. He likes to impress other people.	☐	☐	☐	☐	☐	☐
14. It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.	☐	☐	☐	☐	☐	☐

15. He likes to take risks. He is always looking for adventures.	☐	☐	☐	☐	☐	☐
16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	☐	☐	☐	☐	☐	☐
17. It is important to him to be in charge and tell others what to do. He wants people to do what he says.	☐	☐	☐	☐	☐	☐
18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	☐	☐	☐	☐	☐	☐
19. He strongly believes that people should care for nature. Looking after the environment is important to him.	☐	☐	☐	☐	☐	☐
20. Religious belief is important to him. He tries hard to do what his religion requires.	☐	☐	☐	☐	☐	☐
21. It is important to him that things be organized and clean. He really does **not** like things to be a mess.	☐	☐	☐	☐	☐	☐
22. He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things.	☐	☐	☐	☐	☐	☐
23.He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him.	☐	☐	☐	☐	☐	☐
24. He thinks it is important to be ambitious. He wants to show how capable he is.	☐	☐	☐	☐	☐	☐
25. He thinks it is best to do things in traditional ways. It is important to him to keep up the customs he has learned.	☐	☐	☐	☐	☐	☐
26. Enjoying life's pleasures is important to him. He likes to 'spoil' himself.	☐	☐	☐	☐	☐	☐
27. It is important to him to respond to the needs of others. He tries to support those he knows.	☐	☐	☐	☐	☐	☐
28. He believes he should always show respect to his parents and to older people. It is important to him to be obedient.	☐	☐	☐	☐	☐	☐
29. He wants everyone to be treated justly, even people he doesn't know. It is important to him to protect the weak in society.	☐	☐	☐	☐	☐	☐
30. He likes surprises. It is important to him to have an exciting life.	☐	☐	☐	☐	☐	☐
31. He tries hard to avoid getting sick. Staying healthy is very important to him.	☐	☐	☐	☐	☐	☐
32. Getting ahead in life is important to him. He strives to do better than others.	☐	☐	☐	☐	☐	☐

33. Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge.	☐	☐	☐	☐	☐	☐
34. It is important to him to be independent. He likes to rely on himself.	☐	☐	☐	☐	☐	☐
35. Having a stable government is important to him. He is concerned that the social order be protected.	☐	☐	☐	☐	☐	☐
36. It is important to him to be polite to other people all the time. He tries never to disturb or irritate others.	☐	☐	☐	☐	☐	☐
37. He really wants to enjoy life. Having a good time is very important to him.	☐	☐	☐	☐	☐	☐
38. It is important to him to be humble and modest. He tries not to draw attention to himself.	☐	☐	☐	☐	☐	☐
39. He always wants to be the one who makes the decisions. He likes to be the leader.	☐	☐	☐	☐	☐	☐
40. It is important to him to adapt to nature and to fit into it. He believes that people should not change nature.	☐	☐	☐	☐	☐	☐

PVQ (Female Version)

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Put an **X** in the box to the right that shows how much the person in the description is like you.

	HOW MUCH LIKE YOU IS THIS PERSON?					
	Very much like me	Like me	Somewh like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to her. She likes to do things in her own original way.	☐	☐	☐	☐	☐	☐
2. It is important to her to be rich. She wants to have a lot of money and expensive things.	☐	☐	☐	☐	☐	☐
3. She thinks it is important that every person in the world be treated equally. She believes everyone should have equal opportunities in life.	☐	☐	☐	☐	☐	☐
4. It's very important to her to show her abilities. She wants people to admire what she does.	☐	☐	☐	☐	☐	☐
5. It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.	☐	☐	☐	☐	☐	☐
6. She thinks it is important to do lots of different things in life. She always looks for new things to try.	☐	☐	☐	☐	☐	☐
7. She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.	☐	☐	☐	☐	☐	☐
8. It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.	☐	☐	☐	☐	☐	☐
9. She thinks it's important **not** to ask for more than what you have. She believes that people should be satisfied with what they have.	☐	☐	☐	☐	☐	☐
10. She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.	☐	☐	☐	☐	☐	☐
11. It is important to her to make her own decisions about what she does. She likes to be free to plan and to choose her activities for herself.	☐	☐	☐	☐	☐	☐
12. It's very important to her to help the people around her. She wants to care for their well-being.	☐	☐	☐	☐	☐	☐

	HOW MUCH LIKE YOU IS THIS PERSON?					
	Very much like me	Like me	Somewh like me	A little like me	Not like me	Not like me at all
13. Being very successful is important to her. She likes to impress other people.	☐	☐	☐	☐	☐	☐
14. It is very important to her that her country be safe. She thinks the state must be on watch against threats from within and without.	☐	☐	☐	☐	☐	☐
15. She likes to take risks. She is always looking for adventures.	☐	☐	☐	☐	☐	☐
16. It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.	☐	☐	☐	☐	☐	☐
17. It is important to her to be in charge and tell others what to do. She wants people to do what she says.	☐	☐	☐	☐	☐	☐
18. It is important to her to be loyal to her friends. She wants to devote herself to people close to her.	☐	☐	☐	☐	☐	☐
19. She strongly believes that people should care for nature. Looking after the environment is important to her.	☐	☐	☐	☐	☐	☐
20. Religious belief is important to herm. She tries hard to do what her religion requires.	☐	☐	☐	☐	☐	☐
21. It is important to her that things be organized and clean. She really does **not** like things to be a mess.	☐	☐	☐	☐	☐	☐
22. She thinks it's important to be interested in things. She likes to be curious and to try to understand all sorts of things.	☐	☐	☐	☐	☐	☐
23.She believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to her.	☐	☐	☐	☐	☐	☐
24. She thinks it is important to be ambitious. She wants to show how capable she is.	☐	☐	☐	☐	☐	☐
25. She thinks it is best to do things in traditional ways. It is important to her to keep up the customs she has learned.	☐	☐	☐	☐	☐	☐
26. Enjoying life's pleasures is important to her. She likes to 'spoil' herself.	☐	☐	☐	☐	☐	☐
27. It is important to her to respond to the needs of others. She tries to support those she knows.	☐	☐	☐	☐	☐	☐

	HOW MUCH LIKE YOU IS THIS PERSON?					
	Very much like me	Like me	Somewh like me	A little like me	Not like me	Not like me at all
28. She believes she should always show respect to her parents and to older people. It is important to her to be obedient.	☐	☐	☐	☐	☐	☐
29. She wants everyone to be treated justly, even people she doesn't know. It is important to her to protect the weak in society.	☐	☐	☐	☐	☐	☐
30. She likes surprises. It is important to her to have an exciting life.	☐	☐	☐	☐	☐	☐
31. She tries hard to avoid getting sick. Staying healthy is very important to her.	☐	☐	☐	☐	☐	☐
32. Getting ahead in life is important to her. She strives to do better than others.	☐	☐	☐	☐	☐	☐
33. Forgiving people who have hurt her is important to her. She tries to see what is good in them and not to hold a grudge.	☐	☐	☐	☐	☐	☐
34. It is important to her to be independent. She likes to rely on herself.	☐	☐	☐	☐	☐	☐
35. Having a stable government is important to her. She is concerned that the social order be protected.	☐	☐	☐	☐	☐	☐
36. It is important to her to be polite to other people all the time. She tries never to disturb or irritate others.	☐	☐	☐	☐	☐	☐
37. She really wants to enjoy life. Having a good time is very important to her.	☐	☐	☐	☐	☐	☐
38. It is important to her to be humble and modest. She tries not to draw attention to herself.	☐	☐	☐	☐	☐	☐
39. She always wants to be the one who makes the decisions. She likes to be the leader.	☐	☐	☐	☐	☐	☐
40. It is important to her to adapt to nature and to fit into it. She believes that people should not change nature.	☐	☐	☐	☐	☐	☐

SwLS

Below are five statements that you may agree or disagree with. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

7 = Strongly agree

6 = Agree

5 = Slightly agree

4 = Neither agree nor disagree

3 = Slightly disagree

2 = Disagree

1 = Strongly disagree

_____ In most ways, my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am completely satisfied with my life.

_____ So far, I have gotten the most important things I want in life.

_____ If I could live my life over, I would change nothing.

_____ TOTAL

SHS

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. *In general, I consider myself:*

Not a very happy person						*A very happy person*
1	2	3	4	5	6	7

2. *Compared to most of my peers, I consider myself:*

Less happy						*More happy*
1	2	3	4	5	6	7

3. *Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?*

Not at all						*A great deal*
1	2	3	4	5	6	7

4. *Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?*

A great deal						*Not at all*
1	2	3	4	5	6	7

HM

In general, how happy or unhappy do you usually feel? Check the *one* statement that best describes your average happiness.

10. Extremely happy (feeling ecstatic, joyous, fantastic) _____
9. Very happy (feeling really good, elate) _____
8. Pretty happy (spirits high, feeling good) _____
7. Mildly happy (feeling fairly good and somewhat cheerful) _____
6. Slightly happy (just a bit above normal) _____
5. Neutral (not particularly happy or unhappy) _____
4. Slightly unhappy (just a bit below neutral) _____
3. Mildly unhappy (just a bit below) _____
2. Pretty unhappy (somewhat “blue”, spirits down) _____
1. Extremely unhappy (utterly depressed, completely down) _____

Consider your emotions a moment further. On the average, what percent of the time do you feel happy? What percent of the time do you feel unhappy? What percent of the time do you feel neutral (neither happy nor unhappy)? Write down you best estimates, as well as you can, in the spaces below. Make sure that the three numbers add up to 100%.

On average:

The percent of time I feel happy _____

The percent of time I feel unhappy _____

The percent of time I feel neutral _____

BDI-II

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B – Study Two: The Values Study

The Values Study

1. Information Sheet

The following survey is part of a research project aiming to learn more about personal values, in particular which values are important and to what extent. We are also interested in how values are related to other things, such as mood, and general mental health.

* This survey will take approximately 15 to 20 minutes to complete.

* This survey is open to anyone who is both over 18 years of age AND for whom English is their first language.

* The study is voluntary, and you are free to withdraw at any stage before your data is submitted at the end. The results of this research may be published - but only in a form that ensures you cannot be identified, assuring strict confidentiality.

* You are welcome to receive an e-mail summary once the research is complete.

* All survey respondents that provide an e-mail address will go into the draw to win one of three $100 amazon.com vouchers!

If you have any questions or concerns about this study, you can e-mail me at: aaron@valuesstudy.com

The Values Study

2. Demographic Information

The next questions ask about your background in order for us to determine how representative our sample is. Again, your individual information will be kept strictly confidential.

Are you 18 years of age or older, and is English your first language?

- ◯ Yes
- ◯ No

Other comment

Would you like to receive a summary of the results of this research by e-mail?

- ◯ Yes
- ◯ No

If yes, please provide your e-mail:

Would you like to go into the draw to win one of three $100 amazon.com vouchers?

- ◯ Yes
- ◯ No

If yes, and you have not provided it above already, please specify your e-mail:

Gender?

◯ Male ◯ Female

Age?

Age

Age

Country?

Have you ever received a psychatric diagnosis?

- ◯ No
- ◯ Yes

If yes, please specify

The Values Study

Are you currently taking any medication/s?

- ◯ Yes
- ◯ No

If yes, please specify what this is for.

The Values Study

3. Values

On a scale from 0 to 10, where 0 indicates that you do not know what your values are at all, and 10 indicates that you know exactly what your values are, please rate how much you know what your values are.

	you do not know what your values are at all - 0	1	2	3	4	5	6	7	8	9	you know exactly what your values are - 10
How much you do you know what your values are?	○	○	○	○	○	○	○	○	○	○	○

Other comment?

On a scale from 0 to 10, where 0 indicates that you are not living your life in alignment with your values at all, and 10 indicates that you are living your life in alignment with your values, please rate how much you are currently living your life in alignment with your values.

	you are not living your life in alignment with your values at all - 0	1	2	3	4	5	6	7	8	9	you are living your life in alignment with your values - 10
How much are you living your life in alignment with your values?	○	○	○	○	○	○	○	○	○	○	○

Other comment?

On a scale from 0 to 10, where 0 indicates that values are not important to you at all, and 10 indicates that values are extremely important, please rate how important values are to you.

	values are not important to you at all - 0	1	2	3	4	5	6	7	8	9	values are extremely important - 10
How important are values to you?	○	○	○	○	○	○	○	○	○	○	○

Other comment?

Please mark on the following continuum where you see yourself.

	Open to change										Conservative
Where do you see yourself on this continuum?	○	○	○	○	○	○	○	○	○	○	○

The Values Study

Please mark on the following continuum where you see yourself.

	Interested in self									Interested in others
Where do you see yourself on this continuum?	○	○	○	○	○	○	○	○	○	○

The Values Study

4. SWLS

Below are five statements that you may agree or disagree with. Indicate your agreement with each statement by marking the appropriate button.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
In most ways, my life is close to my ideal.	○	○	○	○	○	○	○
The conditions of my life are excellent.	○	○	○	○	○	○	○
I am completely satisfied with my life.	○	○	○	○	○	○	○
So far, I have gotten the most important things I want in life.	○	○	○	○	○	○	○
If I could live my life over, I would change nothing.	○	○	○	○	○	○	○

The Values Study

5. HM

In general, how happy or unhappy do you usually feel? Pick the one statement that best describes your average happiness.

	Select
How happy or unhappy do you usually feel?	

Consider your emotions a moment further. On the average:

What percent of the time do you feel happy?
What percent of the time do you feel unhappy?
What percent of the time do you feel neutral (neither happy nor unhappy)?

Select your best estimates below. Make sure that the three numbers add up to 100%.

	The percent of time I feel happy	The percent of time I feel unhappy	The percent of time I feel neutral
On average:			

The Values Study

6. CES-D

Below is a list of 20 ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

During the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	◯	◯	◯	◯
2. I did not feel like eating; my appetite was poor.	◯	◯	◯	◯
3. I felt that I could not shake off the blues even with help from my family or friends.	◯	◯	◯	◯
4. I felt I was just as good as other people.	◯	◯	◯	◯
5. I had trouble keeping my mind on what I was doing.	◯	◯	◯	◯
6. I felt depressed.	◯	◯	◯	◯
7. I felt that everything I did was an effort.	◯	◯	◯	◯
8. I felt hopeful about the future.	◯	◯	◯	◯
9. I thought my life had been a failure.	◯	◯	◯	◯
10. I felt fearful.	◯	◯	◯	◯

During the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
11. My sleep was restless.	◯	◯	◯	◯
12. I was happy.	◯	◯	◯	◯
13. I talked less than usual.	◯	◯	◯	◯
14. I felt lonely.	◯	◯	◯	◯
15. People were unfriendly.	◯	◯	◯	◯
16. I enjoyed life.	◯	◯	◯	◯
17. I had crying spells.	◯	◯	◯	◯
18. I felt sad.	◯	◯	◯	◯
19. I felt that people dislike me.	◯	◯	◯	◯
20. I could not get "going."	◯	◯	◯	◯

The Values Study

7. PVQ IM

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Mark the button to the right that shows how much the person in the description is like you.

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	○	○	○	○	○	○
2. It is important to him to be rich. He wants to have a lot of money and expensive things.	○	○	○	○	○	○
3. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.	○	○	○	○	○	○
4. It's very important to him to show his abilities. He wants people to admire what he does.	○	○	○	○	○	○
5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	○	○	○	○	○	○
6. He thinks it is important to do lots of different things in life. He always looks for new things to try.	○	○	○	○	○	○
7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	○	○	○	○	○	○
9. He thinks it's important not to ask for more than what you have. He believes that people should be satisfied with what they have.	○	○	○	○	○	○
10. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	○	○	○	○	○	○

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
11. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.	○	○	○	○	○	○
12. It's very important to him to help the people around him. He wants to care for their well-being.	○	○	○	○	○	○
13. Being very successful is important to him. He likes to impress other people.	○	○	○	○	○	○
14. It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.	○	○	○	○	○	○
15. He likes to take risks. He is always looking for adventures.	○	○	○	○	○	○
16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	○	○	○	○	○	○
17. It is important to him to be in charge and tell others what to do. He wants people to do what he says.	○	○	○	○	○	○
18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	○	○	○	○	○	○
19. He strongly believes that people should care for nature. Looking after the environment is important to him.	○	○	○	○	○	○
20. Religious belief is important to him. He tries hard to do what his religion requires.	○	○	○	○	○	○

The Values Study

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
21. It is important to him that things be organized and clean. He really does not like things to be a mess.	◯	◯	◯	◯	◯	◯
22. He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things.	◯	◯	◯	◯	◯	◯
23.He believes all the world's people should live in harmony. Promoting peace among all groups in the world is important to him.	◯	◯	◯	◯	◯	◯
24. He thinks it is important to be ambitious. He wants to show how capable he is.	◯	◯	◯	◯	◯	◯
25. He thinks it is best to do things in traditional ways. It is important to him to keep up the customs he has learned.	◯	◯	◯	◯	◯	◯
26. Enjoying life's pleasures is important to him. He likes to 'spoil' himself.	◯	◯	◯	◯	◯	◯
27. It is important to him to respond to the needs of others. He tries to support those he knows.	◯	◯	◯	◯	◯	◯
28. He believes he should always show respect to his parents and to older people. It is important to him to be obedient.	◯	◯	◯	◯	◯	◯
29. He wants everyone to be treated justly, even people he doesn't know. It is important to him to protect the weak in society.	◯	◯	◯	◯	◯	◯
30. He likes surprises. It is important to him to have an exciting life.	◯	◯	◯	◯	◯	◯

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
31. He tries hard to avoid getting sick. Staying healthy is very important to him.	◯	◯	◯	◯	◯	◯
32. Getting ahead in life is important to him. He strives to do better than others.	◯	◯	◯	◯	◯	◯
33. Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge.	◯	◯	◯	◯	◯	◯
34. It is important to him to be independent. He likes to rely on himself.	◯	◯	◯	◯	◯	◯
35. Having a stable government is important to him. He is concerned that the social order be protected.	◯	◯	◯	◯	◯	◯
36. It is important to him to be polite to other people all the time. He tries never to disturb or irritate others.	◯	◯	◯	◯	◯	◯
37. He really wants to enjoy life. Having a good time is very important to him.	◯	◯	◯	◯	◯	◯
38. It is important to him to be humble and modest. He tries not to draw attention to himself.	◯	◯	◯	◯	◯	◯
39. He always wants to be the one who makes the decisions. He likes to be the leader.	◯	◯	◯	◯	◯	◯
40. It is important to him to adapt to nature and to fit into it. He believes that people should not change nature.	◯	◯	◯	◯	◯	◯

Any other comments you would like to make?

◯ No

◯ Yes

If yes, please specify

The Values Study

8. PVQ IVF

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Mark the button to the right that shows how much the person in the description is like you.

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to her. She likes to do things in her own original way.	○	○	○	○	○	○
2. It is important to her to be rich. She wants to have a lot of money and expensive things.	○	○	○	○	○	○
3. She thinks it is important that every person in the world be treated equally. She believes everyone should have equal opportunities in life.	○	○	○	○	○	○
4. It's very important to her to show her abilities. She wants people to admire what she does.	○	○	○	○	○	○
5. It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.	○	○	○	○	○	○
6. She thinks it is important to do lots of different things in life. She always looks for new things to try.	○	○	○	○	○	○
7. She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
8. It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.	○	○	○	○	○	○
9. She thinks it's important not to ask for more than what you have. She believes that people should be satisfied with what they have.	○	○	○	○	○	○
10. She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.	○	○	○	○	○	○

The Values Study

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
11. It is important to her to make her own decisions about what she does. She likes to be free to plan and to choose her activities for herself.	◯	◯	◯	◯	◯	◯
12. It's very important to her to help the people around her. She wants to care for their well-being.	◯	◯	◯	◯	◯	◯
13. Being very successful is important to her. She likes to impress other people.	◯	◯	◯	◯	◯	◯
14. It is very important to her that her country be safe. She thinks the state must be on watch against threats from within and without.	◯	◯	◯	◯	◯	◯
15. She likes to take risks. She is always looking for adventures.	◯	◯	◯	◯	◯	◯
16. It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.	◯	◯	◯	◯	◯	◯
17. It is important to her to be in charge and tell others what to do. She wants people to do what she says.	◯	◯	◯	◯	◯	◯
18. It is important to her to be loyal to her friends. She wants to devote herself to people close to her.	◯	◯	◯	◯	◯	◯
19. She strongly believes that people should care for nature. Looking after the environment is important to her.	◯	◯	◯	◯	◯	◯
20. Religious belief is important to her. She tries hard to do what her religion requires.	◯	◯	◯	◯	◯	◯

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
21. It is important to her that things be organized and clean. She really does not like things to be a mess.	◯	◯	◯	◯	◯	◯
22. She thinks it's important to be interested in things. She likes to be curious and to try to understand all sorts of things.	◯	◯	◯	◯	◯	◯
23.She believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to her.	◯	◯	◯	◯	◯	◯
24. She thinks it is important to be ambitious. She wants to show how capable she is.	◯	◯	◯	◯	◯	◯
25. She thinks it is best to do things in traditional ways. It is important to her to keep up the customs she has learned.	◯	◯	◯	◯	◯	◯
26. Enjoying life's pleasures is important to her. She likes to 'spoil' herself.	◯	◯	◯	◯	◯	◯
27. It is important to her to respond to the needs of others. She tries to support those she knows.	◯	◯	◯	◯	◯	◯
28. She believes she should always show respect to her parents and to older people. It is important to her to be obedient.	◯	◯	◯	◯	◯	◯
29. She wants everyone to be treated justly, even people she doesn't know. It is important to her to protect the weak in society.	◯	◯	◯	◯	◯	◯
30. She likes surprises. It is important to her to have an exciting life.	◯	◯	◯	◯	◯	◯

The Values Study

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
31. She tries hard to avoid getting sick. Staying healthy is very important to her.	◯	◯	◯	◯	◯	◯
32. Getting ahead in life is important to her. She strives to do better than others.	◯	◯	◯	◯	◯	◯
33. Forgiving people who have hurt her is important to her. She tries to see what is good in them and not to hold a grudge.	◯	◯	◯	◯	◯	◯
34. It is important to her to be independent. She likes to rely on herself.	◯	◯	◯	◯	◯	◯
35. Having a stable government is important to her. She is concerned that the social order be protected.	◯	◯	◯	◯	◯	◯
36. It is important to her to be polite to other people all the time. She tries never to disturb or irritate others.	◯	◯	◯	◯	◯	◯
37. She really wants to enjoy life. Having a good time is very important to her.	◯	◯	◯	◯	◯	◯
38. It is important to her to be humble and modest. She tries not to draw attention to herself.	◯	◯	◯	◯	◯	◯
39. She always wants to be the one who makes the decisions. She likes to be the leader.	◯	◯	◯	◯	◯	◯
40. It is important to her to adapt to nature and to fit into it. She believes that people should not change nature.	◯	◯	◯	◯	◯	◯

Any other comments you would like to make?

◯ No

◯ Yes

If yes, please specify

The Values Study

9. Thank You

When you select "done" below your answers will be submitted.

Thank you for helping with this research!

If you know of anybody else who you think would like to participate, please forward this link (www.valuesstudy.com) onto them.

If you have any questions, or are have having problems with the link, please contact me on aaron@valuesstudy.com

Again, thank you very much, your help is greatly appreciated.

Aaron Jarden

C – Study Three: The Values Study Follow up

The Values Study - Follow Up

1. Information Sheet

Thank you for agreeing to take part in this important follow-up survey. This survey is much quicker, with less questions (approx 15 mins). The aim of this research is to learn more about values over time.

* This survey is only open to those who took part in the first Values Study.
* The study is voluntary, and you are free to withdraw at any stage before your data is submitted at the end. The results of this research may be published - but only in a form that ensures you cannot be identified, assuring strict confidentiality.
* You are welcome to receive an e-mail summary once the research is complete.
* All survey respondents will go into the draw to win one of three $100 amazon.com vouchers!

If you have any questions or concerns about this study, you can e-mail me at: aaron@valuesstudy.com

The Values Study - Follow Up

2. Demographic Information

The next questions ask about your background in order for us to determine how representative our sample is. Again, your individual information will be kept strictly confidential.

In order to investigate changes in your responses over time, it is essential that you supply the same e-mail address that you gave when you completed the first Values Study six months ago (i.e., the same e-mail address that invited you to participant in this study).

Also, by providing this e-mail address, you will be entered into another draw to win one of three $100 amazon.com vouchers.

Please provide your e-mail in this text box:

Gender?

◯ Female ◯ Male

Age?

Age

Age

Country?

Have you ever received a psychatric diagnosis?

◯ No

◯ Yes

If yes, please specify

Are you currently taking any medication/s?

◯ Yes

◯ No

If yes, please specify what this is for.

Page 2

The Values Study - Follow Up

3. Values

On a scale from 0 to 10, where 0 indicates that values are not important to you at all, and 10 indicates that values are extremely important, please rate how important values are to you.

	values are not important to you at all - 0	1	2	3	4	5	6	7	8	9	values are extremely important - 10
How important are values to you?	○	○	○	○	○	○	○	○	○	○	○

On a scale from 0 to 10, where 0 indicates that you do not know what your values are at all, and 10 indicates that you know exactly what your values are, please rate how much you know what your values are.

	you do not know what your values are at all - 0	1	2	3	4	5	6	7	8	9	you know exactly what your values are - 10
How much you do you know what your values are?	○	○	○	○	○	○	○	○	○	○	○

On a scale from 0 to 10, where 0 indicates that you are not living your life in alignment with your values at all, and 10 indicates that you are living your life in alignment with your values, please rate how much you are currently living your life in alignment with your values.

	you are not living your life in alignment with your values at all - 0	1	2	3	4	5	6	7	8	9	you are living your life in alignment with your values - 10
How much are you living your life in alignment with your values?	○	○	○	○	○	○	○	○	○	○	○

Please mark on the following continuum where you see yourself.

	Open to change									Conservative
Where do you see yourself on this continuum?	○	○	○	○	○	○	○	○	○	○

Please mark on the following continuum where you see yourself.

	Interested in self									Interested in others
Where do you see yourself on this continuum?	○	○	○	○	○	○	○	○	○	○

The Values Study - Follow Up

4. CES-D

Below is a list of 20 ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

During the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	◯	◯	◯	◯
2. I did not feel like eating; my appetite was poor.	◯	◯	◯	◯
3. I felt that I could not shake off the blues even with help from my family or friends.	◯	◯	◯	◯
4. I felt I was just as good as other people.	◯	◯	◯	◯
5. I had trouble keeping my mind on what I was doing.	◯	◯	◯	◯
6. I felt depressed.	◯	◯	◯	◯
7. I felt that everything I did was an effort.	◯	◯	◯	◯
8. I felt hopeful about the future.	◯	◯	◯	◯
9. I thought my life had been a failure.	◯	◯	◯	◯
10. I felt fearful.	◯	◯	◯	◯

During the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
11. My sleep was restless.	◯	◯	◯	◯
12. I was happy.	◯	◯	◯	◯
13. I talked less than usual.	◯	◯	◯	◯
14. I felt lonely.	◯	◯	◯	◯
15. People were unfriendly.	◯	◯	◯	◯
16. I enjoyed life.	◯	◯	◯	◯
17. I had crying spells.	◯	◯	◯	◯
18. I felt sad.	◯	◯	◯	◯
19. I felt that people dislike me.	◯	◯	◯	◯
20. I could not get "going."	◯	◯	◯	◯

The Values Study - Follow Up

5. SWLS

Below are five statements that you may agree or disagree with. Indicate your agreement with each statement by marking the appropriate button.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
In most ways, my life is close to my ideal.	○	○	○	○	○	○	○
The conditions of my life are excellent.	○	○	○	○	○	○	○
I am completely satisfied with my life.	○	○	○	○	○	○	○
So far, I have gotten the most important things I want in life.	○	○	○	○	○	○	○
If I could live my life over, I would change nothing.	○	○	○	○	○	○	○

The Values Study - Follow Up

6. HM

In general, how happy or unhappy do you usually feel? Pick the one statement that best describes your average happiness.

	Select
How happy or unhappy do you usually feel?	

Consider your emotions a moment further. On the average:

What percent of the time do you feel happy?
What percent of the time do you feel unhappy?
What percent of the time do you feel neutral (neither happy nor unhappy)?

Select your best estimates below. Make sure that the three numbers add up to 100%.

	The percent of time I feel happy	The percent of time I feel unhappy	The percent of time I feel neutral
On average:			

The Values Study - Follow Up

7. PVQ IM

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Mark the button to the right that shows how much the person in the description is like you.

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	○	○	○	○	○	○
2. It is important to him to be rich. He wants to have a lot of money and expensive things.	○	○	○	○	○	○
3. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.	○	○	○	○	○	○
4. It's very important to him to show his abilities. He wants people to admire what he does.	○	○	○	○	○	○
5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	○	○	○	○	○	○
6. He thinks it is important to do lots of different things in life. He always looks for new things to try.	○	○	○	○	○	○
7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	○	○	○	○	○	○
9. He thinks it's important not to ask for more than what you have. He believes that people should be satisfied with what they have.	○	○	○	○	○	○
10. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	○	○	○	○	○	○

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
11. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.	○	○	○	○	○	○
12. It's very important to him to help the people around him. He wants to care for their well-being.	○	○	○	○	○	○
13. Being very successful is important to him. He likes to impress other people.	○	○	○	○	○	○
14. It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.	○	○	○	○	○	○
15. He likes to take risks. He is always looking for adventures.	○	○	○	○	○	○
16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	○	○	○	○	○	○
17. It is important to him to be in charge and tell others what to do. He wants people to do what he says.	○	○	○	○	○	○
18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	○	○	○	○	○	○
19. He strongly believes that people should care for nature. Looking after the environment is important to him.	○	○	○	○	○	○
20. Religious belief is important to him. He tries hard to do what his religion requires.	○	○	○	○	○	○

The Values Study - Follow Up

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
21. It is important to him that things be organized and clean. He really does not like things to be a mess.	◯	◯	◯	◯	◯	◯
22. He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things.	◯	◯	◯	◯	◯	◯
23.He believes all the world's people should live in harmony. Promoting peace among all groups in the world is important to him.	◯	◯	◯	◯	◯	◯
24. He thinks it is important to be ambitious. He wants to show how capable he is.	◯	◯	◯	◯	◯	◯
25. He thinks it is best to do things in traditional ways. It is important to him to keep up the customs he has learned.	◯	◯	◯	◯	◯	◯
26. Enjoying life's pleasures is important to him. He likes to 'spoil' himself.	◯	◯	◯	◯	◯	◯
27. It is important to him to respond to the needs of others. He tries to support those he knows.	◯	◯	◯	◯	◯	◯
28. He believes he should always show respect to his parents and to older people. It is important to him to be obedient.	◯	◯	◯	◯	◯	◯
29. He wants everyone to be treated justly, even people he doesn't know. It is important to him to protect the weak in society.	◯	◯	◯	◯	◯	◯
30. He likes surprises. It is important to him to have an exciting life.	◯	◯	◯	◯	◯	◯

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
31. He tries hard to avoid getting sick. Staying healthy is very important to him.	◯	◯	◯	◯	◯	◯
32. Getting ahead in life is important to him. He strives to do better than others.	◯	◯	◯	◯	◯	◯
33. Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge.	◯	◯	◯	◯	◯	◯
34. It is important to him to be independent. He likes to rely on himself.	◯	◯	◯	◯	◯	◯
35. Having a stable government is important to him. He is concerned that the social order be protected.	◯	◯	◯	◯	◯	◯
36. It is important to him to be polite to other people all the time. He tries never to disturb or irritate others.	◯	◯	◯	◯	◯	◯
37. He really wants to enjoy life. Having a good time is very important to him.	◯	◯	◯	◯	◯	◯
38. It is important to him to be humble and modest. He tries not to draw attention to himself.	◯	◯	◯	◯	◯	◯
39. He always wants to be the one who makes the decisions. He likes to be the leader.	◯	◯	◯	◯	◯	◯
40. It is important to him to adapt to nature and to fit into it. He believes that people should not change nature.	◯	◯	◯	◯	◯	◯

Any other comments you would like to make?

◯ No

◯ Yes

If yes, please specify

The Values Study - Follow Up

8. PVQ IVF

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Mark the button to the right that shows how much the person in the description is like you.

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas and being creative is important to her. She likes to do things in her own original way.	○	○	○	○	○	○
2. It is important to her to be rich. She wants to have a lot of money and expensive things.	○	○	○	○	○	○
3. She thinks it is important that every person in the world be treated equally. She believes everyone should have equal opportunities in life.	○	○	○	○	○	○
4. It's very important to her to show her abilities. She wants people to admire what she does.	○	○	○	○	○	○
5. It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.	○	○	○	○	○	○
6. She thinks it is important to do lots of different things in life. She always looks for new things to try.	○	○	○	○	○	○
7. She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
8. It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.	○	○	○	○	○	○
9. She thinks it's important not to ask for more than what you have. She believes that people should be satisfied with what they have.	○	○	○	○	○	○
10. She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.	○	○	○	○	○	○

The Values Study - Follow Up

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
11. It is important to her to make her own decisions about what she does. She likes to be free to plan and to choose her activities for herself.	◯	◯	◯	◯	◯	◯
12. It's very important to her to help the people around her. She wants to care for their well-being.	◯	◯	◯	◯	◯	◯
13. Being very successful is important to her. She likes to impress other people.	◯	◯	◯	◯	◯	◯
14. It is very important to her that her country be safe. She thinks the state must be on watch against threats from within and without.	◯	◯	◯	◯	◯	◯
15. She likes to take risks. She is always looking for adventures.	◯	◯	◯	◯	◯	◯
16. It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.	◯	◯	◯	◯	◯	◯
17. It is important to her to be in charge and tell others what to do. She wants people to do what she says.	◯	◯	◯	◯	◯	◯
18. It is important to her to be loyal to her friends. She wants to devote herself to people close to her.	◯	◯	◯	◯	◯	◯
19. She strongly believes that people should care for nature. Looking after the environment is important to her.	◯	◯	◯	◯	◯	◯
20. Religious belief is important to her. She tries hard to do what her religion requires.	◯	◯	◯	◯	◯	◯

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
21. It is important to her that things be organized and clean. She really does not like things to be a mess.	◯	◯	◯	◯	◯	◯
22. She thinks it's important to be interested in things. She likes to be curious and to try to understand all sorts of things.	◯	◯	◯	◯	◯	◯
23.She believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to her.	◯	◯	◯	◯	◯	◯
24. She thinks it is important to be ambitious. She wants to show how capable she is.	◯	◯	◯	◯	◯	◯
25. She thinks it is best to do things in traditional ways. It is important to her to keep up the customs she has learned.	◯	◯	◯	◯	◯	◯
26. Enjoying life's pleasures is important to her. She likes to 'spoil' herself.	◯	◯	◯	◯	◯	◯
27. It is important to her to respond to the needs of others. She tries to support those she knows.	◯	◯	◯	◯	◯	◯
28. She believes she should always show respect to her parents and to older people. It is important to her to be obedient.	◯	◯	◯	◯	◯	◯
29. She wants everyone to be treated justly, even people she doesn't know. It is important to her to protect the weak in society.	◯	◯	◯	◯	◯	◯
30. She likes surprises. It is important to her to have an exciting life.	◯	◯	◯	◯	◯	◯

The Values Study - Follow Up

How much like you is this person?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
31. She tries hard to avoid getting sick. Staying healthy is very important to her.	◯	◯	◯	◯	◯	◯
32. Getting ahead in life is important to her. She strives to do better than others.	◯	◯	◯	◯	◯	◯
33. Forgiving people who have hurt her is important to her. She tries to see what is good in them and not to hold a grudge.	◯	◯	◯	◯	◯	◯
34. It is important to her to be independent. She likes to rely on herself.	◯	◯	◯	◯	◯	◯
35. Having a stable government is important to her. She is concerned that the social order be protected.	◯	◯	◯	◯	◯	◯
36. It is important to her to be polite to other people all the time. She tries never to disturb or irritate others.	◯	◯	◯	◯	◯	◯
37. She really wants to enjoy life. Having a good time is very important to her.	◯	◯	◯	◯	◯	◯
38. It is important to her to be humble and modest. She tries not to draw attention to herself.	◯	◯	◯	◯	◯	◯
39. She always wants to be the one who makes the decisions. She likes to be the leader.	◯	◯	◯	◯	◯	◯
40. It is important to her to adapt to nature and to fit into it. She believes that people should not change nature.	◯	◯	◯	◯	◯	◯

Any other comments you would like to make?

◯ No

◯ Yes

If yes, please specify

The Values Study - Follow Up

9. Thank You

When you select "done" below your answers will be submitted.

Thank you for helping with this research!

If you have any questions, or are have having problems with the link, please contact me on aaron@valuesstudy.com

Again, thank you very much, your help is greatly appreciated.

Aaron Jarden

D – Correlations between depressed mood and subjective wellbeing variables.

Table 39
Pearson Product-moment Correlations relating Depressed Mood and Subjective Wellbeing

	SwLS	HM	SHS	CES-DS-4IH
Study One				
BDI-II	-.373**	-.466**	-.541**	
Study Two				
CES-DS	-.637**	-.662**		-.813**
Study Three				
Time 1 CES-DS	-.660**	-.739**		-.797**
Time 2 CES-DS	-.530**	-.563**		-.798**

Note. SwLS = Satisfaction with Life Scale. HM = Happiness Measures. SHS = Subjective Happiness Scale. CES-DS-4IH = Centre for Epidemiological Studies, Depression Scale, Four Item Happiness. BDI-II = Beck Depression Inventory II.
Study One: n = 103, Study Two: n = 492, Study Three: n = 173.
**$p < .01$.