SEX-BASED DIFFERENCES IN ADOLESCENTS' ACCURACY IN PERCEIVING AND ACCEPTANCE OF PARENTAL SOCIALISATION VALUES

by

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Romans 5: 3-4	We also glory in tribulations, knowing that tribulation produces perseverance, and perseverance, character; and character, hope.
2 Corinthians 4: 17	For our light affliction, which is but for a moment, is working for us a far more exceeding and eternal weight of glory.
Philippians 4: 13	I can do all things through Christ who strengthens me.

Without faith in your promises for my life, I would not have been able to overcome the many obstacles that I have been faced with throughout this journey. Thank you for giving me the faith that, with you by my side, all things are possible.

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I would like to thank my family for their patience, support, and understanding throughout the many years of my studies. I can now eventually say, “Yes, I have finished.” Finally, I would like to thank my girlfriend for encouraging me to fulfil my dreams. All the struggles that I have been through have been worth it, knowing that we are one step closer to the shared vision that we have for our lives.

DECLARATION

I declare that SEX-BASED DIFFERENCES IN ADOLESCENTS' ACCURACY IN PERCEIVING AND ACCEPTANCE OF PARENTAL SOCIALISATION VALUES is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Signature Date

SUMMARY

The current study examined whether there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. Together with their parents, a total of 134 adolescents (aged 13 to 18) from private Christian schools in Johannesburg, South Africa participated in the study. After creating the measures of overall accuracy, overall acceptance, specific accuracy and specific acceptance, a series of mixed-design ANOVAs were conducted in order to evaluate the six research hypotheses. The results illustrated that there may be sex-based differences in adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value. However, the overall results suggested that the focus on the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values was too narrow because various parent sex and adolescent sex interaction effects were found. Furthermore, there is no clear pattern indicating how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values, thus suggesting that the influence of sex is value-specific.

Key terms: sex-based differences, adolescents, accuracy, acceptance, parental, socialisation values, social role theory, evolutionary psychology, socialisation of gender.

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D= Kolmogorov-Smirnov statistic

F= F-ratio (test statistic used in ANOVA)

F= Levene's test of equality of variance

N, n = The sample size. N usually denotes the total sample size, whereas n usually denotes the size of a particular group

ns= A highly non-significant probability value (a p-value greater than .20)

$\eta^{2=}$ Eta-squared

p= Probability (the probability value, p-value or significance of a test)

r = Pearson's correlation coefficient

$\bar{x}$ = Mean score

χ^2= Chi-square test statistic

α = Cronbach's alpha coefficient

CHAPTER 1

INTRODUCTION

1.1 Background

1.1.1 Historical overview

Historically speaking, researchers have been interested in how societal values are transmitted from one generation to the next, "since the beginning of recorded history" (Grusec, 1997, p. 3). To back up this rather bold claim, Grusec (1997) outlines how the interest in the socialisation process is strongly tied to the deeper historical interest surrounding basic human nature.

Historically, some of the earliest views of human nature can be found in Judeo-Christian theology. Grusec (1997) explains how the traditional view of Judeo-Christian theology portrayed an image of humans as innately depraved or as having an inherently sinful nature. This view of humans as inherently sinful filtered into various parts of Western society, including views on the basic nature of children.

The earliest remnants of the Judeo-Christian view of human nature within the field of psychology can be found in psychoanalytic theory. Grusec (1997) maintains that psychoanalytic theory viewed children as inherently driven by the need for immediate self-gratification. Subsequently, the theory maintained that children would naturally resist their parents' attempts to impose discipline or societal values on them. However, the theory maintains that, because children fear that their expressions of hostility will lead to their parents' abandoning them, they repress their frustrations and obey their parents' demands. Accordingly, it is the fear of feeling guilty that motivates children to internalise and maintain social standards of behaviour (Grusec, 1997).

Within the field of socialisation, this psychoanalytic view of the basic nature of children had a considerable influence on the later theorists who focused on the effectiveness of different discipline strategies (e.g. Baumrind, cited in Grusec, 1997; Hoffman, 1970; Sears, Maccoby,

& Levin, 1957). Between the 1970s and the early 1990s, the central focus of socialisation theory was on the differential effectiveness of different parenting practices or styles (Grusec 1997). Many researchers believed that effective parents were those who balanced their use of reasoning and power assertion. However, the quest to prove the superiority of reasoning over power assertion was to come to a gradual end, mainly due to the epistemological shift which took place within the field of socialisation in the 1970s.

Together with psychoanalysis and learning theory, the research on the differential effectiveness of different parenting practices or styles provides examples of unidirectional perspectives of the socialisation process. These perspectives focused largely on the outcome of the socialisation process namely, the extent to which children have taken over the values and attitudes of their society – that is, the internalisation of values. The research into differential effectiveness assumed that parents have different techniques at their disposal and that the extent to which they used these techniques effectively, affected the extent to which their children internalised their values. Despite the intuitive appeal of the unidirectional perspectives, Grusec and Goodnow (1994) maintained that these perspectives were problematic because they lacked the evidence to support their claims and ignored the direction of effect within the parent-child relationship.

Based on the problems resulting from the literature which developed from the unidirectional perspective of socialisation, Grusec and Goodnow (1994) set out to offer an expanded formulation of the variables which affect children's internalisation of values. Instead of focusing solely on the outcome of the socialisation process, they turned their attention to outlining what was happening during the socialisation process. From this bidirectional perspective, Grusec and Goodnow focused on identifying variables which indicated that the direction of effect within the parent-child relationship is bidirectional.

Based on their expanded formulation of the variables which affect children's internalisation of their parents' value-laden messages, Grusec and Goodnow (1994) proposed a model of discipline effectiveness. This model clustered the variables which are seemingly associated with children's internalisation of values into two separate steps; namely, children's (1) accuracy in perceiving and (2) acceptance of their parents' value-laden messages. Despite the

appeal of this relatively straightforward model, the model remained largely untested (Perry, 1994).

Close to ten years after Grusec and Goodnow (1994) proposed their model of discipline effectiveness, still relatively little was known about the factors that influenced children's accuracy in perceiving their parents' value-laden messages (Knafo & Schwartz, 2003). Similarly, Barni, Ranieri, Scabini, and Rosnati (2011) state that still relatively little is known about the factors that affect children's acceptance of their parents' value-laden messages.

In an attempt to address this problem, Knafo and Schwartz (2003) set out to assess the factors which influence the first step of Grusec and Goodnow's (1994) model namely, the factors which influence adolescents' accuracy in perceiving their parents' socialisation values – the values that adolescents believe their parents find important for their lives. In contrast, Barni et al. (2011) set out to assess the factors associated with the second step of the model namely, adolescents' acceptance of their parents' socialisation values.

Although Grusec and Goodnow (1994, p. 5) do state that the goal of their research was not a "complete reanalysis of the concept of internalisation and of the conditions or methods that promote it", the findings from Knafo and Schwartz's (2003) and Barni et al.'s (2011) studies suggest that there are many more variables which may have an effect on discipline effectiveness and children's internalisation of their parents' value-laden messages. A point of particular interest is that the findings from both studies suggest that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. Although Grusec and Goodnow (1994) do mention 'child sex' and 'parent sex' within their model, the findings from these studies suggest that the variable of 'child sex' should be afforded more importance as a variable which affects the extent to which children internalise different parental socialisation values.

1.1.2 Research regarding values in the South African context

Within the South African context, interest in the topic of values has been fairly strong. Due to the conceptual disarray surrounding the concept of values (Rohan, 2000; Rokeach, 1973), the

researcher limited the development of themes within the South African literature to those themes which made reference to a theory of values (e.g. Rokeach, 1973; Schwartz, 1992).

Based on this limitation, the researcher found that there are three main themes emerging from the research into values within the South African context. These themes include a focus on values and consumer behaviour (e.g. Burgess & Steenkamp, 1998; Corder, 2001; Ungerer & Joubert, 2011), values in the workplace (e.g. Botha & Moalusi, 2010; Carvahlo, 2005), and values in cross-cultural research (e.g. Becker, 2009; Furnham, 1984; Kotze & Lombard, 2002; Van Der Merwe, 2009; Young, Louw-Potgieter, & Giles, 1986). The researcher identified another theme, namely, values and education (e.g. Du Preez & Roux, 2010; Gretta, 2001; Shwala, 2006; Solomons & Fataar, 2011). However these studies did not refer to a theory of values.

With regard to the study's focus on the internalisation of values and sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values, no South African research which focuses on this topic could be found. This lack of literature supports the claims of Knafo and Schwartz (2003) and of Barni et al. (2011) that there is very little research on the factors which influence children and/or adolescents' accuracy in perceiving and acceptance of parental socialisation values.

1.2 Research problems

The first research problem that this study addresses is tied to the findings arising from the studies by Knafo and Schwartz (2003) and Barni et al. (2011). Both these studies found sex-based differences in adolescents' overall accuracy in perceiving and acceptance of their parents' socialisation values. More specifically, both studies found that, compared to male adolescents, female adolescents had higher overall levels of accuracy in perceiving and acceptance of their parents' socialisation values. Although Grusec and Goodnow (1994) do mention 'child sex', their model is believed to overlook the importance of 'child sex' as a variable affecting children's accuracy in perceiving and acceptance of their parents' value-laden messages.

The second problem that this study addresses is tied to the fact that, although both Knafo and Schwartz (2004) and Barni et al. (2011) found sex-based differences in adolescents' overall levels of accuracy in perceiving and acceptance of parental socialisation values, they did not look into the possibility of finding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. This is partly due to the fact that Grusec and Goodnow (1994) do not specify the content of the values that children internalise.

1.3 Research questions

On the basis of the first research problem, the first question that is being asked is as follows: "Compared to male adolescents, do female adolescents have higher levels of overall accuracy in perceiving their mothers' and their fathers' parental socialisation values?" This question forms the basis for the following research hypothesis:

H_1= The mean score which represents female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values will be significantly higher than the mean score which represents male adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values.

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values.

Tied to the first research problem, the second research question is as follows: "'Compared to male adolescents, do female adolescents have higher levels of overall acceptance of what they perceive as their mothers' and their fathers' parental socialisation values?" Based on this question, the following research hypothesis is set:

H_2= The mean scores that represent female adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values will be significantly higher than the mean scores representing male adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values.

H_0= There will be no significant differences between the mean scores which represent the overall acceptance by male and female adolescents' of what they perceive as their mothers' and fathers' parental socialisation values.

As stated in the second research problem, Knafo and Schwartz (2003) and Barni et al. (2011) did not look in to the possibility of finding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. This problem is, in part, due to the fact that Grusec and Goodnow (1994) do not specify the content of the values that children internalise. The following question arises from this problem: "Does 'adolescent sex' influence adolescents' accuracy in perceiving and acceptance of specific parental socialisation values?"

Using the findings of Schwartz and Rubel (2005) and Schwartz and Rubel-Lifschitz (2009) on sex-based differences in value priorities to form hypotheses regarding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, one can hypothesise the following:

H_3= The mean scores representing female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security as socialisation values will be significantly lower than the mean scores which represent male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security as socialisation values.

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security as socialisation values.

H_4= The mean scores that represent male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation as socialisation values will be significantly lower than the mean scores that represent female adolescents' accuracy in perceiving the importance that their mothers and

fathers place on the value types of power, achievement, and stimulation as socialisation values.

H_0= There will be no significant differences between the mean scores representing the accuracy of male and female adolescents in perceiving the importance that their mothers and fathers attribute to the value types of power, achievement, and stimulation as socialisation values.

H_5= The mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of benevolence, universalism, and security as socialisation values will be significantly lower than the mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers attribute to the value types of benevolence, universalism, and security as socialisation values.

H_0= There will be no significant differences between the mean scores representing male and female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of benevolence, universalism, and security as socialisation values.

H_6= The mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation as socialisation values will be significantly lower than the mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers attribute to the value types of power, achievement, and stimulation as socialisation values.

H_0= There will be no significant differences between the mean scores representing male and female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation as socialisation values.

It is necessary to state that, with reference to hypotheses 3 to 6, a significantly lower mean score actually represents a significantly higher level of adolescents' accuracy in perceiving or acceptance of what they perceive as the level of importance that either their mothers or their fathers place on a specific socialisation value. This complexity is discussed in chapter 4, section 4.9.7, which deals with how the measures of adolescents' accuracy in perceiving and acceptance of what they perceive as the level of importance that their mothers and fathers place on a specific socialisation value were created.

1.4 Research objectives and aims

Based on the first research problem, the first research objective or aim is to determine whether there are sex-based differences in adolescents' overall accuracy and acceptance of parental socialisation values. Based on the second research problem, the second objective of this research is to determine whether there are sex-based differences in adolescent's accuracy in perceiving and acceptance of specific parental socialisation values.

1.5 Significance of research

This study contributes to the field of socialisation – which includes the internalisation of values – in a number of ways. Firstly, if this study replicates the findings by Knafo and Schwartz's (2003) and Barni et al. (2011) of sex-based differences in adolescents' overall accuracy in perceiving and acceptance of parental socialisation values, the findings will offer more support to the importance of 'child sex' as a variable influencing the internalisation of values. Secondly, if the study finds that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, these findings could suggest that male and female adolescents differ in the extent to which they internalise different parental socialisation values.

It is important to focus on sex-based differences in adolescents' accuracy and acceptance of parental socialisation values for a number of reasons. Firstly, although the process of value acquisition is widely discussed, it is not extensively researched, "particularly in families with adolescents" (Barni et al., 2011, p. 106). Secondly, if there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values, this

would raise the question of what could account for these sex-based differences. Although this research attempts to provide an answer to this question, it remains unanswered within the field of socialisation.

Thirdly, a focus on sex-based differences in the values which adolescents internalise could prove to be critical during a developmental phase in which children have to establish their own identities. As adolescents are attempting to establish their own identities, how would these sex-based differences in accuracy in perceiving and acceptance of parental socialisation values affect the identities that these adolescents are developing? Finally, since values act as the guiding principles within our lives (Schwartz, 1992), how would these sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values affect what male and female adolescents strive for in life and, in turn, how they behave in order to achieve what they are striving for? Although this study does not provide answers to these questions, the researcher is hopeful that it can open up a discussion which is currently non-existent.

1.6 Scope of research

This study is situated within the junction between two different fields of psychology, namely developmental psychology and social psychology. The field of socialisation research is particularly diverse and thus the focus within this field has been limited to the literature which provides some context to Grusec and Goodnow's (1994) model of discipline effectiveness. Since this study is particularly interested in the seemingly overlooked variable of 'child sex' within this model, it focuses on the literature which would support the argument that children's sex influences the extent to which they internalise the values that their parents consider important for their lives. Since the socialisation literature discusses the socialisation process and the internalisation of values in a sex-generalised manner, the researcher found it difficult to find socialisation literature which related directly to the topic of this study. This difficulty in finding literature relevant to this topic was intensified by the fact that the internalisation of values literature is not guided by a theory of values.

As a result of this problem, the researcher turns to the field of social psychology to define what is meant by the term 'values'. After outlining the development of Schwartz's (1992)

theory of basic human values, findings of sex-based differences in value priorities will be discussed in an attempt to find some understanding of why there may be sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. These studies, together with the theories which explain these sex-based differences in value priorities, guide the study's hypotheses that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values.

1.7 Definition of key terms

Adolescence: Although the development of the individual can be seen as a continuous process, within the field of developmental psychology, researchers find that for research purposes, it is practical to divide the human lifespan into different stages of development (Louw, Van Ede, & Louw, 1998). Thus, *adolescence* refers to the developmental stage which falls between the developmental stages of childhood and adulthood. Although there are various developmental tasks associated with this stage, this study makes use of chronological age to demarcate adolescence. Thus, in this study, based on the discussion by Gouws, Kruger, and Burger (2008), *adolescence* refers to the developmental stage which generally starts at the age of 13 and ends at the age of 18.

Adolescent: This refers to a person who is in the developmental phase of adolescence – someone who is between the ages of 13 and 18.

Sex: The term *sex* refers the categorisation of a person as either a male or a female based on the person's biological or physiological characteristics. Primarily, the distinction between the biological categories of male and female is based on the reproductive organs of males and females.

Socialisation: Due to the epistemological shift within the field of socialisation, the researcher provides a broad definition of socialisation or the socialisation process. *Socialisation* refers to the process whereby children acquire the skills needed to successfully adapt to the demands of the society in which they live. Stated differently: "in the broadest terms, it refers to the way in which individuals are assisted in becoming members of one or more social groups" (Grusec & Hastings, 2007, p. 1).

Internalisation of values: As a result of the epistemological shift within the field of socialisation, the broad definition of the internalisation of values is adopted. This definition maintains that the internalisation of values refers to the extent to which children have taken over the values and attitudes of their society. A more concise definition, as conceptualised by Grusec and Goodnow (1994, p.4), refers to the internalisation of values as "taking over the values and attitudes of society as one's own so that socially acceptable behaviour is motivated not by anticipation of external consequences but by intrinsic or internal factors".

Values: Stated very simply, *values* serve as guiding principles in our lives. Values serve as the criteria that we use to select and justify our actions and to evaluate people and events (Knafo & Schwartz, 2004). Thus, values influence what we strive for in life and have an influence on what we regard as important in life.

Socialisation values: Socialisation values refer to the values that parents attempt to instil in their children. With regard to adolescents' perceptions of their parents' socialisation values, from the perspective of adolescents, *socialisation values* would refer to the values that adolescents believe their parents find to be important for their lives.

Overall accuracy: This refers to the extent to which adolescents correctly estimate the level of importance that their parents place on different socialisation values.

Overall acceptance: *Overall acceptance* refers to the extent to which adolescents accept the level of importance that they perceive their parents place on different socialisation values. This is indicated by the extent to which adolescents' personal values correspond to the levels of importance that they perceive their parents attribute to different socialisation values.

Accuracy in perceiving specific parental socialisation values: This terminology refers to the extent to which adolescents' perceptions of the level of importance their parents place on a specific socialisation value (e.g. conformity) matches the actual level of importance that their parents attribute to the same socialisation value.

Acceptance of specific parental socialisation values: This terminology refers to the extent to which the personal level of importance that adolescents place on a specific value matches the level of importance that they perceive their parents to attribute to the same value.

1.8 Overview of the chapters

The remainder of this study is divided into five chapters. In chapter 2, the literature which contextualises Grusec and Goodnow's (1994) model of discipline effectiveness, focusing particularly on the shift from the unidirectional to the bidirectional perspective of socialisation will be discussed. The discussion of the model is followed by an examination of the research which has focused on the two steps of the model. This research seems to suggest that the model may overlook the important influence that adolescent sex has on adolescents' accuracy in perceiving and acceptance of their parents' value-laden messages. Before turning to the literature which provides some support for the belief that adolescent sex may have an important influence on adolescents' accuracy in perceiving and acceptance of what they perceive as their parents' value-laden messages, two problems within the socialisation literature which prevent one from taking this action, will be pointed out. The first problem is that the socialisation literature generally overlooks the possibility that the variable of sex influences the socialisation process or the extent to which sex influences the values that children internalise. The second problem focuses on the conceptual disarray which surrounds the concept of values.

Chapter 3 commences with a brief discussion of Rokeach's (1973) work in an attempt to clarify the conceptual disarray surrounding the concept of values. The brief discussion also serves as the platform for mapping the development of Schwartz's (1992) theory of the content and structure of basic human values. After clarifying how the concept of values is used within this study, Schwartz and Rubel's (2005) and Schwartz and Rubel-Lifchitz's (2009) findings on sex-based differences in value priorities will be discussed.

Based on the socialisation literature's inability to explain the study's contention that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values, it is proposed that the findings of sex-based differences in value priorities offer a guideline to developing the researcher's hypotheses regarding the specific

value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. In addition, by using social role theory and evolutionary psychology to explain the potential origins of sex-based differences in value priorities, these theories are claimed to offer an additional guideline to the development of his hypotheses regarding the specific value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. The chapter concludes with a discussion of the socialisation of gender literature which supports the study's claim that adolescent sex has an important influence on adolescents' accuracy in perceiving and acceptance of what they perceive as the values that their parents view as important for their lives. Together with the findings of sex-based differences in value priorities and the two above-mentioned theories, this socialisation of gender literature helps guide the development of the hypotheses regarding the specific value constructs on which possible sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur.

Chapter 4 describes the steps that were followed in an attempt to answer the questions posed by this study. The chapter commences with a reassertion of the research objectives and questions of this study. Next, the overall plan or research design that was used to answer the research questions will be described. This leads to a discussion of the sampling method and the characteristics of the sample that was obtained, in an attempt to assess the research hypotheses of this study. Thereafter, the reliability and the validity of the research instrument that was used in this study are presented. The final section of the chapter focuses on the various considerations that were necessary in the analysis of the different research hypotheses that were set out in this study.

Chapter 5 presents the results of the analysis of the research hypotheses. The chapter concludes with a discussion of the research results.

The final chapter of this study summarises what the study focused on, the nature of the main argument, how the argument was substantiated, what was discovered, and the pre-existing views that were challenged by the research. The chapter also includes a discussion of the limitations of the research and concludes with a discussion of the directions for future research.

CHAPTER 2

REVIEW OF THE SOCIALISATION LITERATURE

2.1 Introduction

This chapter begins with a discussion of the epistemological shift which took root within the field of socialisation in the 1970s. In focusing on this epistemological shift from the unidirectional to the bidirectional perspective of socialisation, the section discusses how this shift brought about radical changes in the way researchers viewed the parent-child relationship. The discussion of the nature of the parent-child relationship from the bidirectional perspective will be succeeded by an analysis of Grusec and Goodnow's (1994) model of discipline effectiveness.

Developing from a bidirectional perspective, the model proposes that the effectiveness of parents' attempts to socialise their children is mediated by a number of variables which can be clustered into two separate steps, the first step being children's accuracy in perceiving their parents' value-laden messages and the second being children's acceptance of their parents' value-laden messages. After discussing the variables associated with these two steps, the research that has focused on the two steps of the model will be presented. This ultimately leads to the presentation of research which suggests that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of what they perceive as their parents' value-laden messages. These findings were ultimately responsible for the belief that Grusec and Goodnow's (1994) model seems to overlook the important influence that adolescent sex has on adolescents' accuracy in perceiving and acceptance of what they perceive as their parents' socialisation values.

2.2 The epistemological shift from the unidirectional to the bidirectional conceptualisation of the socialisation process

Traditional, unidirectional conceptions of the socialisation process maintained a linear view of causality within the socialisation process. From this unidirectional perspective, socialisation was defined as the process whereby parents transmit entire copies of their values

to their children and children internalise these values (Kuczynski, Marshall, & Schell, 1997). These traditional definitions held the view that children's values originate from their parents and that the effect or outcome of parents' efforts to socialise their children would be children's level of internalisation of their values. Furthermore, the traditional view maintained that any dissimilarity between generations was seen as the result of ineffective parenting practices (Kuczynski et al., 1997). This traditional, unidirectional view of socialisation focused solely on the outcomes or products of the socialisation process, with the major outcome of the socialisation process being "narrowly conceptualized as the conformity of the younger generation to the norms and regulations of the previous generation" (Kuczynski & Parkin, 2007, p. 259).

Despite the intuitive appeal of the unidirectional view of socialisation, researchers within the field of socialisation found that it could not adequately describe what was happening in the actual process of socialisation itself (Kuczynski et al., 1997). This was mainly due to the fact that empirical studies which were seated within the unidirectional perspective, "attempted to connect static characteristics of parents, conceptualized as causes, to static characteristics of children, conceptualized as outcomes" (Kuczynski & Parkin, 2007, p. 259).

In the 1970s, researchers such as Bell (1968, 1979), Bell and Harper (1977), and Parke (1977) started adopting a bidirectional view of socialisation in order to attain a greater understanding of what was happening within the socialisation process. The view of parents as the conveyors of values to children (linear causality) shifted to a view of mutual interaction and mutual influence (reciprocal or circular causality). However, it was not easy for researchers within the field of socialisation to make the shift from the unidirectional to the bidirectional view of socialisation because this shift required them to radically change their assumptions with regard to the parent-child relationship (Kuczynski et al., 1997). This difficulty, in part, stemmed from researchers' embeddedness within the cultural assumptions surrounding the nature of the parent-child relationship. The everyday 'common sense' of parenting in the language of Western culture portrays the parent-child relationship as a one-way, parent-to-child direction of influence, where parents " 'teach', discipline', 'control', 'manage', 'mold', 'shape', and 'nurture' their children, whereas children 'receive', 'learn' from, and 'obey' their parents" (Kuczynski, Lollis, & Koguchi, 2003, p.424). Bidirectional

ideas that parents ‘obey’, are ‘molded’ or ‘nurtured’ by their children, go “against the grain of culturally established patterns of thought” (Ambert cited in Kuczynski et al., 1997, p. 25).

It is difficult to illustrate this shift from the unidirectional to the bidirectional perspective of socialisation without discussing how this shift radically changed the view of the parent-child relationship as well as the view of the roles that parents and children fulfil within this relationship. In order to illustrate this change, the researcher starts with a point which Kuczynski and Hildebrandt (1997) briefly discuss, namely, how actual societal changes in the importance or value of children influenced contemporary perspectives of the socialisation process and the parent-child relationship.

2.2.1 The value of children

A socio-cultural analysis of the parent-child relationship, and in turn the socialisation process, seems somewhat misplaced amongst the vast volume of literature within the field of socialisation that discusses the socialisation process from the individual or relational level. However, an analysis of Western attitudes toward the value of children greatly contributes to an understanding of both parents’ and children’s needs as well as parents’ goals in the parent-child relationship.

Kuczynski and Hilderbrandt (1997, p. 248) state that Western attitudes toward the value of children shape “contemporary perspectives on child socialisation and parent-child relations”. Kuczynski and Parkin (2007) as well as Trommsdorff and Kornadt (2003) have reported that, in industrialised cultures, and increasingly worldwide, there has been a decline in the economic value of children and an increase in the emotional value of children. This suggests that Western parents find more emotional value than economic value in children. Western parents find emotional value in children because they satisfy their needs for affection, companionship, intimacy, pride, and meaning in life (Kuczynski & Parkin, 2007). The important point that develops from the discussion of the value of children is that the value that parents find in their children influences their view of the parent-child relationship, their roles within this relationship, the outcomes or goals that they strive for in their interactions with their children, as well as the ways in which they handle discipline interactions.

2.2.2 Perceptions of the parent-child relationship and parental roles

"Among the more important tasks and responsibilities associated with the parental role is the socialisation of children into a system of values and beliefs about self and society" (Gecas, cited in Whitbeck & Gecas, 1988, p. 829). The unidirectional perspective would characterise parents' role as socialisation agents in terms of authority figures. However, this does not necessarily mean that parents identify their main role within the parent-child relationship as being 'authority figures'. Based on the value that parents find in their children, parents are more likely to characterise the parent-child relationship in terms of the emotional value of children.

In their exploratory study, Kuczynski, Blaine, and Dawber (cited in Kuczynski & Hildebrandt, 1997) found that mothers generally characterised the parent-child relationship in terms of friendship and intimacy. Referring to their ideas about their roles within this relationship, only 36% of mothers characterised themselves in terms of an authority figure or a socialisation agent. It is important to understand the roles that parents identify with most strongly, because these roles are likely to affect the goals or outcomes that parents strive for in their interactions with their children.

2.2.3 Goals other than the socialisation of values

The unidirectional perspective was most likely to maintain that the most important goal that parents have is to ensure that their children comply with or conform to their demands. The most important goal therefore, was to get children to internalise the values that they attempted to instil in their children. In the early 20th century, parents may have viewed children's compliance as a highly necessary and desirable goal since it ensured that they would be able to successfully adapt to the demands of the society in which they lived. However, Kuczynski and Hildebrandt (1997, p. 247) state that there is evidence to suggest that "Western attitudes towards obedience as a child-rearing value have changed during the 20th century". Alwin's work (1988, 1990) suggests that, between 1924 and 1974, the value of obedience declined sharply, whereas child-rearing values such as independence, tolerance, and broad-mindedness rose during the same period. It may be that this shift in child-rearing

values is related to the shift in the value of children. This change has also impacted on the goals or outcomes that parents strive for in their interactions with their children.

Grusec and Goodnow (1994) state that parents may not always see their children's internalisation of their values as the most desirable outcome of their interactions with their children. A non-deterministic view of parenting would suggest that parents have a range of goals with regard to their interactions with their children (Kuczynski & Parkin, 2007). In relation to the emotional value of children, parents can be said to have the added goal of maintaining a positive parent-child relationship (Kuczynski & Parkin, 2007).

Accepting that parents have a range of goals suggests that parents may be willing to tolerate resistance to their requests in order to achieve other goals such as generating a positive parent-child relationship, teaching other values, and having autonomous, assertive, and adaptive children (Hastings & Grusec cited in Kuczynski & Parkin, 2007). Furthermore, accepting that parents have a range of goals also means acknowledging that parents have a range of accepted outcomes, from ideas about what is acceptable or tolerable, to what is completely 'out of the question' (Goodnow, 1994). Thus, one could say that parents' goals influence the outcomes that parents are willing to accept and the way in which they react to their children's behaviours (Kuczynski & Parkin, 2007).

This section has shown that, with an increase in the emotional value of children, parents are increasingly focused on establishing and maintaining positive parent-child relations as a parental goal. This goal is somewhat broader than the unidirectional perspective's focus on parents' goal of maintaining compliance. With parents' new focus there has also been an increase in the range of goals that parents strive for and, in turn, the range of outcomes that parents are willing to accept in their interactions with their children.

The next section will feature an illustration of the fact that parents aim for more than one goal in their interactions with their children, which stands in great contrast to the unidirectional perspective's emphasis on the sole outcome of parents' interaction with their children being children's conformity to their parents demands (Kuczynski & Parkin, 2007). The idea that parents focus on a range of goals and accept a range of outcomes requires a

reconceptualisation of the parent-child relationship, parent-child interactions and influence and, most importantly, existing ideas about successful socialisation.

2.2.4 The parent-child relationship

The unidirectional perspective's narrow conceptualisation of the outcome of parent-child interactions was largely based on its rather deterministic view of the direction of effect or direction of influence within the parent-child relationship (parent-to-child). The unidirectional perspective proposed that parents influenced the behaviour of their children but that only global characteristics of children influence parents' behaviour or the socialisation process (Kuczynski et al., 1997). This portrayed a rather restricted view of children's influence within the parent-child relationship.

Kelley et al. (cited in Collins et al., 1997, p. 82) define a relationship as "enduring ties or connections between two individuals, comprising frequent, highly interdependent action sequences across diverse settings and tasks". According to this definition, one cannot really speak of a parent-child relationship when working from the unidirectional perspective of socialisation because it does not see parents and children's actions as interdependent sequences of interaction. Aligned with the argument put forward in the section above, it is clear that the interactions in the parent-child relationship are not restricted but rather more diverse and dynamic. The bidirectional perspective's view of the parent-child relationship as a dynamic process requires a reassessment of what is happening in the parent-child relationship.

The next section continues with a bidirectional account of the parent-child relationship. It illustrates that the static perspective of parent-child interactions portrayed by the unidirectional perspective must be understood as having a temporal dimension (Grolnick, Deci, & Ryan, 1997). After discussing the temporal dimension of relationships, the discussion adds to the argument on parents' view of the parent-child relationship and their roles and goals, by focusing on how this influences our view of children's role and influence within the parent-child relationship.

2.2.5 Relationship history

Hinde (cited in Kuczynski, 2003) states that a shift away from an understanding of parent-child interaction as a moment-to-moment social interaction to a view which considers the temporal dimension of the relationship, is essential to develop an understanding of how the relationship itself can be a source of dynamics which influences parent-child interactions.

Parent-child interactions are not based merely on the "immediate contingencies found in each other's behaviour", as is suggested by the unidirectional conception of socialisation (Kuczynski & Parkin, 2007, p. 272). The important point that the temporal dimension of relationships brings to understanding parent-child interactions, is that parents and children do not react only to one another's immediate behaviour during their present interactions (Maccoby & Martin, 1983). Their relationship expectations, which are based on their history of interactions, assist them to construct their own behaviour as well as to anticipate and make interpretations of another's behaviour (Lollis, 2003). Their shared understanding of the enduring nature of their relationship causes them to interact as though there will be a future to their relationship (Grusec & Goodnow, 1994).

This temporal dimension is evident in parents' striving towards long-term goals, one of which would be maintaining a positive parent-child relationship. This long-term goal induces parents to act in ways which will promote this future goal instead of focusing solely on immediate goals in present disciplinary interactions with their children (Dawber & Kuczynski cited in Kuczynski, 2003). Thus, the goals that parents and children strive for are influenced by their considerations of the temporal nature of their relationship. The enduring nature of the parent-child relationship means that the attainment of goals is influenced by considerations of the effects that these goals will have on the parent-child relationship. Therefore, the attainment of goals within the parent-child relationship, and in fact any enduring relationship, are said to be interdependent.

2.2.6 Interdependency of needs and goals

Interdependency refers to the "frequency, duration, and intensity of the impact" of one partner's behaviour on the other partner (Kelley et al. cited in Kuczynski & Parkin, 2007, p.

272). Both parents and children are mutually receptive and mutually vulnerable to each other's behaviour and the behaviour of one partner affects the needs and goals of the other (Kuczynski & Parkin, 2007). Children rely on their parents to fulfil their needs for love, security, and care, as well as other physical and psychological resources, whereas parents rely on their children to fulfil their needs for companionship, affection, and meaning in their own lives (Bugental & Grusec, 2006; Kuczynski & Parkin, 2007).

Without considering the enduring nature of the parent-child relationship and the interdependence of goals, it would be possible to believe that parents have all the bargaining power within the parent-child relationship. What this close interdependency of needs implies is that both parents and children are "powerful and vulnerable with regard to each other despite apparent differences in legitimate authority, individual capacities, and material resources" (Kuczynski & Hildebrandt, 1997, p. 236). This mutual receptivity and vulnerability within the context of the parent-child relationship calls for a re-examination of the concept of power and an acknowledgment that the dynamics within the parent-child relationship develop children's capacity for strategic action and mutual influence within the parent-child relationship (Kuczynski, 2003; Kuczynski et al., 1997; Kuczynski & Parkin, 2007).

2.2.7 Agency

Kuczynski (2003, p. 9) states that "agency means considering individuals as actors with the ability to make sense of the environment, initiate change, and make choices". In a similar definition of agency, Giddens (cited in Kuczynski, 2003) maintains that an active agent has the ability to exert influence within a relationship and sway the influence of others.

The unidirectional perspective of socialisation viewed parents as active agents who had the goal of bringing about internalisation and as having parenting styles and strategies in order to achieve this goal. On the other hand, children were viewed as passive recipients or objects in the socialisation process (Bugental & Grusec, 2006). Only global characteristics of the child such as sex, age, and temperament were thought to influence the strategies that parents used to instil values in their children (Kuczynski et al., 1997). This implied that children could not directly influence their parents or the socialisation process. Children's lack of agency and

their passive submission to parental commands was seen as a sign of competence. Children's attempts to exert influence or display agency would have been interpreted as a clear sign of their noncompliance, 'difficultness', deviance, or defiance (Kuczynski & Kochanska, 1990).

2.2.8 Summary of the socialisation literature

The discussion of the shift from the unidirectional to the bidirectional perspective of socialisation would not have been possible without pointing to the change in the perspective of the parent-child relationship. This change was based on actual social changes that took place during the 20th century. Western attitudes towards the value of children have largely shaped this change in perspective on child socialisation and parent-child relations (Kuczynski & Hildebrandt, 1997). This change facilitated researchers' focus on the process of socialisation itself instead of on the outcomes of socialisation.

Perhaps the most difficult challenge to researchers in the field was to reconceptualise the direction of effect or influence within the parent-child relationship. The direction of effect and influence has been reconceptualised as being bidirectional with both parents and children being viewed as active agents within the parent-child relationship. In contrast to the unidirectional perspective, the bidirectional perspective supports the view that children are actively involved in the socialisation process and in influencing their social context (Grolnick, et al., 1997; Grusec & Davidov, 2007). Children's ability to actively influence their social context implies that they are also actively involved in "creating their own parenting context because parents use their children's behaviour as a regulator of their own action" (Maccoby et al. cited in Grolnick et al., 1997, p. 155).

Kuczynski (2003) states that a strong assumption of the bidirectional perspective is that parents and children are equal agents in the context of the parent-child relationship; however, this should not be taken as a given. Children's ability to express their agency, as well as their effectiveness as agents is constrained or enabled by the context of the relationship (De Mol & Buysse cited in Kuczynski & Parkin, 2007; Kuczynski & Hildebrandt, 1997). Within the context of the parent-child relationship, parents' responsiveness to their children's influence is influenced by parental goals (Grusec & Ungerer, 2003). This suggests that parents are less willing to accept their children's input and influence when they place a high level of

emphasis on a particular goal or outcome. Nevertheless, the important point is that, if parents want to influence their children, particularly if they wish to have their children internalise a particular value, parents must accommodate their own behaviour to their children's agency. "Parents who pursue their bottom lines without taking children's agency into account might do so at the cost of their relationship" (Kuczynski & Parkin, 2007, p. 277).

2.3 Grusec and Goodnow's (1994) model of discipline effectiveness

Thus far the discussion of the socialisation literature has focused on the epistemological shift from the unidirectional to the bidirectional conceptualisation of the socialisation process. The most significant changes which have accompanied this shift are the views of the nature of the parent-child relationship and the ways in which parents and children interact with each other in this relationship.

In the section which follows, Grusec and Goodnow's (1994) model of discipline effectiveness which developed from the need to reconceptualise parent-child interactions within the discipline situation from the bidirectional perspective will be discussed. The crux of Grusec and Goodnow's argument is that the perspectives which developed from the unidirectional conceptualisation of socialisation; such as psychoanalysis, learning theory, and Baumrind's (cited in Grusec & Goodnow, 1994) parenting styles, portray the idea that certain discipline techniques are more effective than others and therefore, for children to successfully adapt to the demands of society, parents just had to stick to these discipline techniques. However, Grusec and Goodnow (1994) maintained that these perspectives were problematic because they lacked the evidence to illustrate the differential effectiveness of certain methods – effectiveness determined by the level of children's internalisation of values – and they did not acknowledge the direction of effect in the parent-child relationship.

As a result of the problems in the socialisation literature that they reviewed, Grusec and Goodnow (1994) set out to re-develop the way in which the discipline process is conceptualised. Their model of discipline effectiveness proposes that the effectiveness of parents' attempts to socialise their children is mediated by variables which can be clustered into two separate steps: the first step being children's accuracy in perceiving their parents'

value-laden messages and the second being children's acceptance of their parents' value-laden messages.

The discussion of the model of discipline effectiveness commences with an overview of the two steps which influence the extent to which children internalise their parent's value-laden messages. Thereafter, the variables which are associated with each step will be discussed. Since the model of discipline effectiveness remains largely untested, the section continues with a presentation of the research which has assessed the two steps of the model. This leads to the presentation of the surprising findings from these studies which ultimately suggest that there are gaps in Grusec and Goodnow's (1994) model of discipline effectiveness.

2.3.1 Steps towards internalisation

Grusec and Goodnow (1994) start sketching out how they arrived at their model of discipline effectiveness by situating the steps to internalisation within the information-processing framework. They then build on the proposals first developed in cross-generational agreement of values research by Furstenberg (1971), which were then extended by Cashmore and Goodnow (1985).

The first proposal in Grusec and Goodnow's (1994) model is that children's internalisation of their parents' messages involves two steps, the first being the child's level of accuracy in perceiving the parent's message and the second being the child's level of acceptance of the perceived message. The second proposal draws on the variables outlined in Figure 2.1. Grusec and Goodnow state that attaining a high level of accuracy of perception relies on the parents' ability to get the child's attention and on the clarity of messages conveyed from parent to child. In terms of the acceptance of the parent's message, they place a large emphasis on the warmth of the parent-child relationship.

Grusec and Goodnow (1994) draw attention to the final proposal which states that a lack of similarity across generations stems from either inaccurate or accurate perception, followed by rejection of the message. Cashmore and Goodnow (1985) found that children accurately perceived the importance their parents placed on a certain value (e.g. obedience) but that they themselves placed a lower value on the parent's value – the difference between generations

reflected children's accurate perception of their parents' value but a rejection of it. Their second finding was that children were inaccurate in perceiving the actual importance that their parents placed on a particular value but, due to their perceiving the value as important to their parents, children accepted the value. In this case, the lack of similarity between generations was due to children's inaccurate perceptions of the emphasis that their parents placed on a particular value.

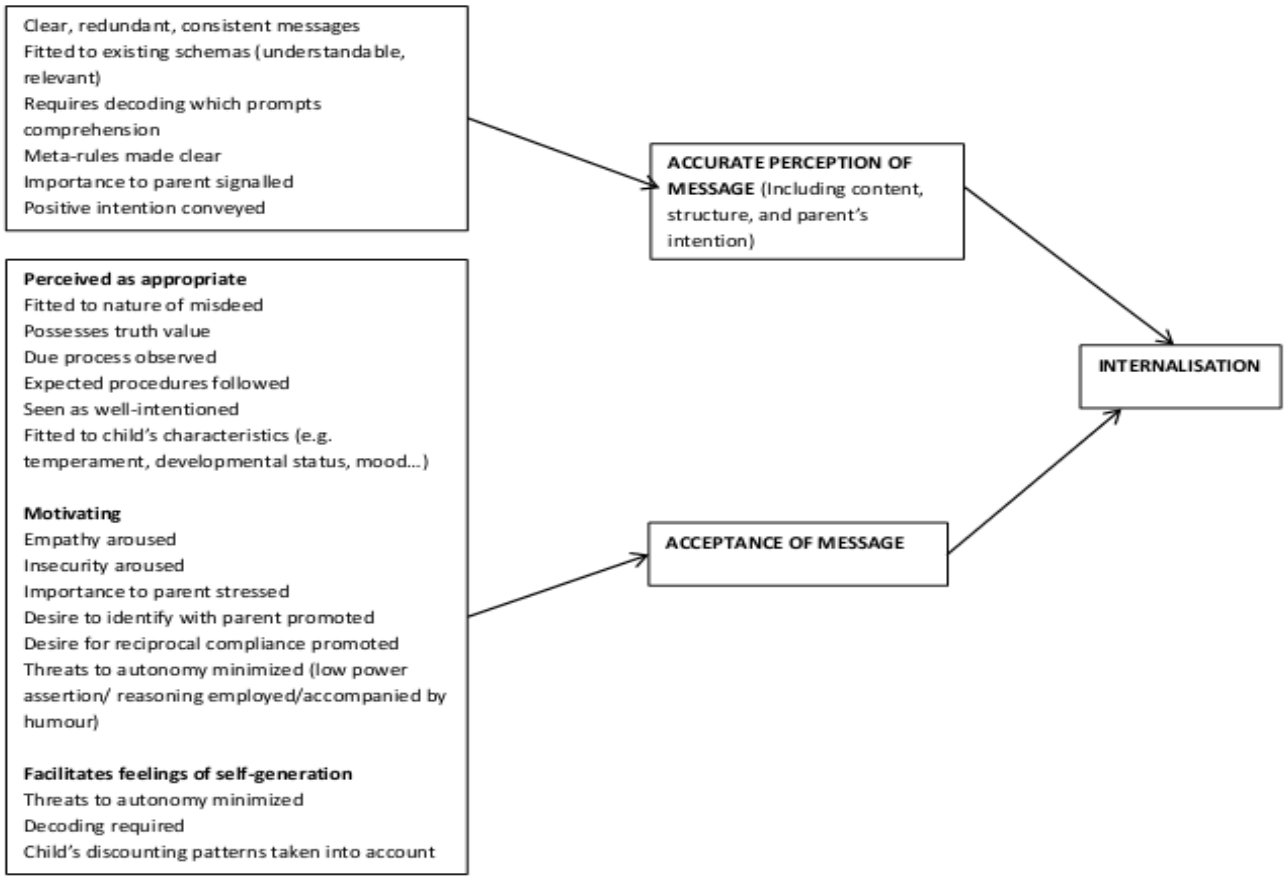

Figure 2.1 A diagrammatical representation of Grusec and Goodnow's (1994) two-step model of discipline effectiveness (Grusec & Goodnow, 1994)

After outlining that the move toward value similarity between generations involves two steps, that different conditions/variables affect these two steps, and that lack of similarity may be due to inaccurate or accurate perception followed by rejection of parents' messages, Grusec and Goodnow (1994) start to group the variables which are associated with discipline effectiveness into those which affect the first step, accuracy, and those which affect the second step, acceptance.

2.3.2 Variables associated with the two steps of the model

In their discussion of the variables which are associated with the two steps of their model of discipline effectiveness, Grusec and Goodnow (1994) categorise the variables associated with the two steps into four categories of variables; namely, the nature of the child's misdeed, the nature of the parent's response, and the characteristics of both the child and the parent. In the section which follows, the variables associated with the two steps of Grusec and Goodnow's (1994) model of discipline effectiveness will be discussed. These variables are discussed in accordance with the four above-mentioned categories, which are also illustrated in Table 2.1. The section begins by discussing the variables associated with the first step of the model and ends by discussing the variables associated with the second step of the model.

TABLE 2.1 The categories of variables associated with discipline effectiveness (Grusec and Goodnow, 1994)

Category		Variables
1. Nature of the child's misdeed		Moral, social conventional issues, failure of concern for others, personal issue
2. Nature of the parent's response	Content	Empathy arousal, evidence of truth value, arousal of insecurity, threats to autonomy
	Structure	Clarity of meta-rules; relevance of message; observance of due process; clarity, redundancy, and consistency of message; indirectness and implicitness of message; importance signalled; attention captured; decoding required
3. Characteristics of the child		Temperament, mood, past history with respect to discipline, age
4. Characteristics of the parent		Warmth, responsiveness to child's wishes, characteristic disciplinary style

2.3.3 The first step: accurate perception of parental message

This section focuses on the categories of variables which are said to influence children's accuracy in perceiving their parents' value-laden messages. These categories include the characteristics of the child, characteristics of the parent, and the nature of the parental response to a misdeed.

2.3.3.1 Characteristics of the child

Grusec and Goodnow (1994) state that characteristics of the child such as temperament, mood, developmental status, and sex, all have an impact on the effectiveness of different discipline methods. They are of the opinion that a child's sex may determine how responsive a child is to different discipline methods. Although they do not state it clearly, it seems as though they suggest that girls may be more responsive to other-oriented reasoning because they have been more "exposed to discussions of the effects of their actions on others" (Grusec & Goodnow, 1994, p.11). This suggests that discipline methods may be gendered in the sense that parents may use less other-oriented reasoning with boys and most likely, that their discipline methods with boys are more power-assertive.

Grusec and Goodnow (1994) place a heavy emphasis on how the variable of a child's developmental status can affect discipline effectiveness. Brody and Shaffer's (cited in Grusec & Goodnow, 1994, p. 11) work on young children's inability to decentre, suggests that young children experience a greater level of difficulty in "responding to other-oriented induction". The developmental consideration which is of most relevance to this study would be children's perceptions of their parents' rights to impose any kind of discipline – related to Turiel's (1983) social-cognitive-domain perspective. Grusec and Goodnow (1994, p.12) state that "with increasing maturity, children view increasing numbers of events as inappropriate domains for parental direction and therefore are less willing to tolerate any form of parental authority exercised around these events". This suggests that, during adolescence, parents may find it more difficult to address their children's transgressions.

In addition, Grusec and Goodnow (1994) summarise the general effect of age on the effectiveness of discipline methods by stating that, as children age, they have an increased ability to recognise the intentions behind their parents' actions, greater responsiveness to variations in parents' use of discipline, and a greater ability to interpret the significance of their transgressions based on their parents' use of affect within the discipline situation. An important point which can be taken from this statement is that, compared to children, adolescents' greater cognitive capacity should result in their greater accuracy in interpreting more complex parental messages. However, their greater cognitive capacity also implies that

they are more likely to find inconsistencies in their parents' messages which could result in adolescents challenging their parents' messages.

2.3.3.2 Characteristics of the parent

Grusec and Goodnow (1994) make reference to how parental characteristics such as warmth, parental responsiveness to children's wishes, and disciplinary style affect discipline effectiveness or a child's internalisation of parental messages. Interestingly, they choose to elaborate on the third variable, characteristic disciplinary style, linking this variable to social class and culture. They state that children may develop expectations of the 'appropriate' or 'acceptable' degree of power assertion used by their mothers and fathers based on what is seen as 'appropriate' within their culture.

2.3.3.3 The nature of the parental response

Children's accuracy in perceiving their parents' value-laden messages is influenced by the way in which their parents respond to the nature of their misdeeds. Grusec and Goodnow (1994) believe that parents' interpretations of their children's misdeeds, together with their sense of duty to address these misdeeds, subsequently leads to variations in the way that parents respond to the nature of their children's misdeeds. With regard to these variations, Grusec and Goodnow focus specifically on how parents' considerations of the nature of their children's misdeeds and their sense of duty to address these misdeeds subsequently lead to variations in their use of reasoning. In their discussion of variations in parents' use of reasoning, Grusec and Goodnow suggest that the content and structure of parents' reasoning can vary and that variations in the content of parents' reasoning leads to variations in children's acceptance of their parents' value-laden messages and that variations in the structure of parents' reasoning leads to variations in children's accuracy in perceiving their parents' value-laden messages. Since this section focuses on the variables which influence the first step – children's accuracy – of the model of discipline effectiveness, this section will also focus on how variations in the structure of parents' reasoning influence children's accuracy in perceiving their parents' value-laden messages.

2.3.3.4 Variations in the structure of parents' reasoning

Grusec and Goodnow (1994) state that the reasoning that parents use in discipline situations carries with it parents' intended messages or communications about why they would like their children to change their behaviour. When the terms 'messages' or 'communications' are mentioned, questions arise regarding the importance of the clarity of the message, the decoding skills and schemas that children have to interpret the messages, and the goals behind the 'messages'. In their discussion of the goals behind the 'messages', Grusec and Goodnow refer to the work of Mancuso and Lehrer (1986) which states that two structural distinctions can be made in parents' use of reasoning: the first distinction is the level of generality of parents' use of reasoning and the second is the relevance of parents' reasoning.

Mancuso and Lehrer (1986) illustrate the differences in the level of generality by referring to parental responses to misdeeds. They give the example of a mother who asks her children to "Stop it!" when they are fighting. Mancuso and Lehrer believe that the mother's response is an example of a low-level statement which is not likely to lead to her children's understanding of the general, over-arching rule, which would be that brothers and sisters should get along with each other. Their statement is similar to that of Wertheim (cited in Grusec & Goodnow, 1994) which states that a parent's message should convey the rule behind the rule, or the meta-rule. As regards the second distinction, the relevance of the reprimand, this refers to the relevance or the appropriateness of the degree of the parent's response to the misdeed and the parent's sticking to the expected procedures – not bringing up issues which are unrelated to the misdemeanour at hand.

Grusec and Goodnow (1994) state that the structural distinctions made by Mancuso and Lehrer (1986) are important because these two particular structural qualities of parents' reprimands/reasoning affect the accuracy with which children perceive the actual message behind their parents' reprimands, which ultimately affects children's internalisation of their parents' value-laden messages. After discussing the more specific structural qualities of parents' reasoning, Grusec and Goodnow (1994) point to Cashmore and Goodnow's (1985) and Higgins' (cited in Grusec & Goodnow, 1994) use of the information-processing approach which provides a larger set of the structural qualities of parents' reasoning. These additions

have to do with the clarity of a parent's message as well as the frequency, consistency, and significance of their messages.

Grusec and Goodnow (1994) state that the structural qualities presented by Cashmore and Goodnow (1985) might tempt one to believe that the clearer the parental message, the more likely it is to lead to children's accuracy in perceiving the message and subsequently their internalisation of the message. However, parents often make use of reasoning which is far from clear or explicit. Parents' often use metaphorical statements such as "Where are your ears?" when a child does not follow through with a command or "Were you born in a stable?" when a child does not close the door. In cases like these, parents' use of metaphors or even sarcasm results in their messages being more implicit than explicit. Although these implicit messages are not always problematic, Grusec and Goodnow (1994, p.10) believe that these messages require a great deal of "cognitive unpacking" and that, developmentally, the child has to have the cognitive ability to do this.

The distinctions based on the structure of parents' reasoning which have been discussed within this section affect children's accuracy in perceiving their parents' messages. Together with characteristics of the parent and of the child, these variables make up the accuracy variables within Grusec and Goodnow's (1994) model of discipline effectiveness. However, these same variables have an influence on children's acceptance of their parents' messages.

Grusec and Goodnow (1994) state that the clarity of parents' messages or more particularly, their use of implicit messages, may also facilitate feelings of self-generation because of the cognitive effort involved in extracting the parental message. In addition, the variations in parents' use of reasoning are far more likely to affect children's perceptions of threats to their autonomy and, in turn, their feeling that their decision to accept their parents' messages is due to intrinsic factors. Thus, it seems as though both steps of the model of discipline effectiveness draw on the same categorisations of variables, namely, the nature of the child's misdeed and nature of the parental response.

2.3.4 The second step: acceptance of parental message

This section focuses on the categories of variables which are said to influence children's acceptance of their parents' value-laden messages. The fact that the categories of variables mentioned in this section are similar to the categories of variables influenced in the previous section indicates that there is some overlap in the variables associated with the two steps of the model. Despite this overlap, this section focuses on how both parents' and children's interpretations of the nature of the misdeed may influence children's acceptance of their parents' value-laden messages. This leads into a discussion of how parents' interpretations of the misdeed can result in variations in the content of their reasoning which subsequently influence children's interpretation of the appropriateness of their parents' response to the misdeed.

2.3.4.1 Nature of the misdeed

In their discussion of the nature of the children's misdeeds and the resulting behaviour of parents and their children within the discipline situation, Grusec and Goodnow (1994) start off by stating that the most effective parents are those that match their response or use of discipline to the nature of the child's misdeed. Grusec and Goodnow draw on Turiel's (1983) social-cognitive domain approach to illustrate how the nature of a misdeed may be categorised by both parents and children. Turiel categorises misdeeds or transgressions into those which fall into the moral transgression domain (harmful acts) and those that fall into the social-conventional domain (what to wear, whom to make friends with, when to watch television). Turiel found that children feel that their parents have a greater right to intervene in the moral transgressions domain than in the social-conventional domain. In addition to children's perceptions of their parents' right to intervene in the different domains, Grusec and Goodnow (1994) argue that children may be more willing to accept power-assertive discipline methods in cases of moral transgressions than in cases of social-conventional transgressions. However, this argument is more of an ideal than the norm. In cases where parents and children differ in their understanding of why an act is wrong, their perceptions of the seriousness of the misdeed, or parents' "right" to intervene within a particular domain, their perceptions of what an appropriate response to a misdeed is, will also differ (Grusec & Goodnow, 1994).

2.3.4.2 Perceptions of behaviour within the discipline situation

In the section above it was revealed that the nature of a misdeed can be categorised into two different domains and that children and parents may have different perceptions and expectations with regard to what an appropriate response to a misdeed is. The next section focuses on how parents' considerations of the nature of their children's misdeeds and their duty to address these misdeeds subsequently lead to variations in their use of reasoning. The discussion of these variations in reasoning is divided into a discussion of variations in the content of parents' reasoning and a discussion of variations in the structure of parents' reasoning. In order to maintain a bidirectional perspective of perceptions of behaviour in the discipline situation, this discussion also focuses on the factors which affect children's judgements of the appropriateness of their parents' response to a misdeed.

2.3.4.3 Variations in the content of parents' reasoning

The effectiveness of the content of parents' reasoning varies, based on a child's ability to take the perspective of another, the child's interpretation of the parents' actions or statements, and the kind and intensity of affect aroused in the child (Grusec & Goodnow, 1994). With reference to the child's ability to take on the perspective of another, Grusec and Goodnow state that this is not 'perspective taking' in the developmental sense but rather the child's ability to 'take perspective' based on the child's perceived similarity to the person that he or she is interacting with. This implies that, if parents want the content of their reasoning to be effective, their children should see them as being similar to themselves.

The second variation in content, based on the child's interpretation of the parents' actions or statements, is strongly connected to the argument of children's perceptions of the nature of the misdeed. The difference here is that the effectiveness of the content of reasoning is not referring to children's perceptions of the appropriateness of their parents' responses but rather the 'truth value' of their parents' responses. Kuczynski (cited in Grusec & Goodnow, 1994) reports that parents' statements of other-oriented consequences for a misdeed are more effective than stating the self-oriented consequences of a child's antisocial behaviour. This is due to the belief that children find it more difficult to refute the ' truth value' of the other-oriented consequences in their parents' messages.

The third variation in content, that is variation based on the kind and intensity of affect aroused in the child, refers to the ability of parents' statements to arouse their children's emotions which in turn captures their children's attention (Kuczynski cited in, Grusec & Goodnow, 1994). Kuczynski states that the kind and intensity of affect aroused by parent's statements, in addition to the type of reasoning that parents' use, act as determinants of children's internalisation of the parents' messages.

The final variable which Grusec and Goodnow (1994) discuss with regard to how variations in the content of parents' reasoning affects the effectiveness of their messages is that of variations in parents' use of power assertion and withdrawal of love. They suggest that it is important to consider how parents' use of power assertion threatens a child's sense of autonomy or feelings of security. They believe that, if children perceive their parents' discipline method as threatening their sense of autonomy, this may bring about children's rejection of their parents' message and a desire to behave in a way that is contrary to that which their parents expect. Threats to security – which include threats of separation brought about by the withdrawal of love – may foster greater compliance with parents' wishes, at least in the presence of the parents. If this sense of threat to children's security is strong enough, it may bring about an internalisation of parental values, because children may attribute their need to comply, to intrinsic reasons.

The discussion within this section thus far has highlighted the variables which are associated with the category 'the nature of the parental response' (illustrated in Table 2.1). In the paragraph which follows, the child's response to the nature of the parental response or, as Grusec and Goodnow (1994) have stated, the child's perception of the appropriateness of the parent's response to the misdeed will be discussed.

As stated previously, children's perceptions of the 'appropriateness' of parents' responses to their misdeeds are affected by the domain in which the misdeed falls. A second source of children's perceptions of the 'appropriateness' of their parents' response to a misdeed develops from children's expectations of the appropriate or acceptable degree of power assertion used by mothers and fathers, based on what is seen as appropriate within their culture. In their discussion, the child's perceptions of the 'appropriateness' of the parental response, Grusec and Goodnow (1994) force the reader to think about the child's role in the discipline situation. Their proposal that the mediating effect in the effectiveness of a parent's

use of a discipline method is the child's perception of the 'appropriateness' of the parental response is far removed from previous views of the internalisation of values, which view the internalisation of values as a unidirectional (parent-to-child) process.

2.4 Research on the model of discipline effectiveness

In this section, the researcher presents the research which has tested the model of discipline effectiveness. Knafo and Schwartz (2003) assessed the variables associated with the first step of the model and Barni, Ranieri, Scabini, and Rosnati (2011) assessed the variables associated with the second step of the model. After discussing the results from these studies, the discussion moves on to present a finding which was somewhat overlooked with the model, namely, the effect that child sex may have on children's accuracy in perceiving and acceptance of their parents' value-laden messages.

Once of the clearest connections between the variables within Grusec and Goodnow's (1994) model and the research of either Knafo and Schwartz (2003) or Barni et al. (2011), comes in the form of Barni et al.'s finding that parents' promotion of their children's volitional functioning predicts children's acceptance of what they perceive as their parents' socialisation values. This finding offers strong support for the acceptance variable 'facilitates feelings of self-generation' and particularly the variable 'threats to autonomy minimized'. There are a number of other links between the model and the research of Knafo and Schwartz (2003) and Barni et al. (2011) but these links are not as reliable as the previously mentioned link.

One of these links would be that both Knafo and Schwartz (2003) and Barni et al. (2011) found that the consistency and clarity of parental messages predicted adolescents' accuracy in perceiving as well as their acceptance of what they perceived as their parents' socialisation values. Knafo and Schwartz (2003) found that the consistency of parents' messages over time, word-deed consistency, adolescents' perceptions of parents' value agreement, as well as parents' actual value agreement all influenced adolescents' understanding of and motivation to attend to their parents' value messages. This in turn predicted their overall accuracy in perceiving their parents' values. On the other hand, Barni et al. (2011) found that adolescents' perceptions of their parents value agreement predicted adolescents' overall

acceptance of their parents socialisation values but that parents' actual value agreement did not predict acceptance. The researcher finds it strange that Barni et al.'s finding regarding this variable predicted acceptance but that the same variable also predicted adolescents' accuracy in perceiving their parent's socialisation values. Although their findings do offer support to Grusec and Goodnow's (1994) variables 'clear, redundant, consistent messages' and 'desire to identify with parent promoted', the findings also indicate that the two steps of Grusec and Goodnow's model are not as distinct as they suggest. The interconnectedness between the steps can also be seen in the example which follows in the next paragraph.

Another link would be that Knafo and Schwartz (2003) found that the variable warmth/responsiveness predicted adolescents' accuracy in perceiving their parents' socialisation values and Barni et al. (2011) found that emotional closeness between parent and child predicted adolescents' acceptance of their parents' socialisation values. Although the measures in the studies differed, the findings suggest that the variables of warmth/responsiveness and emotional closeness, which are highly similar, are necessary preconditions for both steps of Grusec and Goodnow's (1994) model. It is believed that in spite of the fact that Grusec and Goodnow do not mention the variable 'emotional closeness' or 'relationship quality', this variable could be linked to Grusec and Goodnow's (1994) variables of 'positive intention conveyed', 'empathy aroused', 'desire to identify with parent promoted', and 'desire for reciprocal compliance promoted'.

Another possible link between Knafo and Schwartz's (2003) findings and Grusec and Goodnow's (1994) model would be Knafo and Schwartz's (2003) finding that autocratic and authoritative parenting predicted adolescents' accuracy in perceiving their parents' socialisation values. However, this finding may be related to several variables within Grusec and Goodnow's model. The problem with this link and a couple of the links above is that the links are inferred, they are not based on links substantiated by the researchers.

This problem suggests that many of the variables within Grusec and Goodnow's model (1994) have not been empirically validated. This is a problem that Perry (1994) highlighted even before the work by Knafo and Schwartz (2003) and Barni et al. (2011). This problem is compounded by the fact that all the variables within Knafo and Schwartz's (2003, p. 609) model, accounted for only "22% to 32% of the variance in adolescents' accuracy of

perception of parental values". This suggests that there may be many other variables which may account for the variation in adolescents' accuracy in perceiving their parents' socialisation values (Knafo & Schwartz, 2003).

Despite these issues, it is fair to say that the research of both Knafo and Schwartz (2003) and Barni et al. (2011) did not use measures which are truly aligned to the way in which Grusec and Goodnow (1994) conceptualised the variables that they identified within their model. What their findings do suggest is that the model is not 'set in stone' and that the model may not account for all the findings. In the section which follows, the reader's attention will be drawn to one of the most surprising findings which Grusec and Goodnow (1994) do not really account for, namely sex-based differences in adolescents' overall accuracy in perceiving and acceptance of what they perceive as their parents' socialisation values.

2.5 The overlooked variable – sex

Knafo and Schwartz (2003) found that female adolescents perceived their parents' socialisation values more accurately than male adolescents and Barni et al. (2011) found that female adolescents accepted what they perceived as their parents' socialisation values more readily than male adolescents. Knafo and Schwartz (2003) suggest that this sex-based difference in adolescents' accuracy in perceiving their parents' socialisation values may be due to female adolescents' greater knowledge of the cultural norms regarding the importance of different values. Barni et al. (2011) attribute these differences to females' greater sensitivity to relationships and to their being raised to be more attentive to others' needs and to the need to conform to others' expectations. On the other hand, they suggest that males are raised to be more independent and less attentive to intimate others' wishes. Grusec and Goodnow (1994) give a similar suggestion for these sex-based differences when they state that females are more frequently exposed to other-oriented discussions.

It is believed that, despite the findings of sex-based differences in adolescents' accuracy and acceptance of parental socialisation values, Grusec and Goodnow (1994) do not place a significant emphasis on how children's sex could possibly influence their internalisation of values. These sex-based differences are also somewhat overlooked by Knafo and Schwartz (2003) and Barni et al. (2011), since these did not really form the main focus of their studies.

Generally, the socialisation literature also overlooks the possibility that children's sex influences the extent to which children internalise different values.

At this point, the researcher is very tempted to discuss the literature which does present some evidence that children's sex influences the content of the values that children internalise or the extent to which children internalise different values. However, another issue is considered to be more vital to address since it is largely overlooked within the field of socialisation namely, the high level of conceptual disarray which surrounds the concept of values (Rohan, 2000; Rokeach, 1973).

The vast majority of the socialisation literature that was consulted, mentioned the internalisation of values but there was no consensus on what is meant by values or the actual values that children internalise. Furthermore, close to 90% of this literature does not refer to some of the most influential work in the field of values (e.g. Allport, Vernon, & Lindzey, 1960; Kluckhohn, 1952; Rokeach, 1973; Schwartz, 1992; Schwartz & Bilsky, 1987). The resultant contention is that it would not be possible to continue a discussion of the possible sex-based differences in adolescents' accuracy and acceptance of parental socialisation values without clarifying what is meant by values.

In the chapter which follows, the focus will be on the development of Schwartz's (1992) theory of the content and structure of basic human values. This theory provides a greater understanding of the values that humans may internalise and in turn, a greater understanding of the potential sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values.

CHAPTER 3

VALUES

3.1 Introduction

The discussion of values commences with a brief overview of the ideas that Rokeach (1973) set out with regard to the nature of values and value systems. Schwartz (2011) maintains that, without these ideas, his own theory of the content and structure of basic human values would possibly not exist. In the discussion of Rokeach's (1973) ideas, the following aspects will be touched upon: the nature of values and value systems, the functions of values, and quite importantly, the conceptual distinctions between values and other seemingly related concepts.

Next, the work of Schwartz and Bilsky (1987), which marks the origin of Schwartz's (1992) theory of basic human values, will be introduced. The definition of values that Schwartz and Bilsky use as their guide for hypotheses regarding the content and structure of human values will be outlined and thereafter, the conclusions they draw from their hypotheses will be presented.

Based on their relatively positive findings, there will be illustrations of how Schwartz and Bilsky (1990) continued with their pursuit to validate their theory. By using a large number of diverse samples, they gained greater insight into their theory which subsequently led to Schwartz (1992) modifying his previous hypotheses relating to the content and structure of human values. Schwartz's study is believed to have been ground-breaking because the results of his study confirmed that people from various cultures clearly distinguish 10 value types and that the structure of the relations between these value types was highly consistent. With this confidence in his theory, Schwartz set out to confirm the universality of his theory.

The greatest challenge to the universality of Schwartz's (1992) theory came about when Schwartz, Melech, Lehmann, Burgess, Harris, and Owens (2001) found that samples from more rural, less developed countries – particularly South Africa – deviated considerably from the theory in terms of the content and structure of human values. After realising that these deviations resulted from problems with the measurement tool, Schwartz et al. (2001)

confirmed that Schwartz's (1992) theory was universally applicable. After this great victory, Schwartz turned his attention to learning more about the way in which people from different cultures arrange the importance of different values within their lives – that is, their value priorities. Subsequently, this led to the discovery of sex-based differences in the values that males and females find as inherently important within their lives. The conclusion to this chapter contains the suggestion that understanding these sex-based differences in value priorities may help to understand on which value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of the their parents' socialisation values may occur.

3.2 The nature of values

Rokeach (1973, p.5) defines 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". In order to fully understand Rokeach's definition, the discussion of this definition will be divided into various sections. The first section discusses the enduring nature of values.

3.2.1 The enduring nature of values

In terms of the enduring nature of values, Rokeach (1973) believes that values are relatively stable but that they are amendable. The enduring nature of values stems from the fact that values are initially taught in isolation from each other and that they are taught in an absolute manner. However, as children mature, and their understanding of values becomes more sophisticated, they are increasingly likely to be faced with situations in which several values may come into competition with each other. In situations where several values may come into competition with each other, children will have to evaluate the importance of one value against another and arrive at a decision as to which value is the most important in each situation. Gradually, according to Rokeach (1973, p. 6), through our experiences and the process of maturation, "we all learn to integrate the isolated, absolute values we have been taught in this or that context into a hierarchically organized system, wherein each value is ordered in priority or importance relative to other values".

3.2.2 A value is a belief

With regard to a value as a belief, Rokeach adopts Allport's (cited in Rokeach, 1973, p.7) view of a value as "a belief upon which a man acts by preference". Like all beliefs, values include cognitive, affective, and behavioural components. The cognitive component of a value indicates the desirability of different means or end states of behaviour. The affective component indicates that values can arouse our emotions and values are said to have a behavioural component because they can lead us to action when they are activated (Rokeach, 1973).

3.2.3 A value refers to a mode of conduct or end-state of existence

Referring to modes of conduct or end-states of existence, Rokeach (1973) maintains that people develop enduring beliefs about the desirability of certain ways of conducting themselves and about the outcomes or end-states of being. He is of the opinion that end-states of existence can be separated into two types of terminal values: personal (self-centred) and social (society-centred) values. Rokeach believes that people may vary in the priority that they place on achieving personal or social values. He also believes that an increase in the importance of a social value will generally lead to an increase in the importance of other social values and a subsequent decrease in personal values – and vice versa for personal values. He divides modes of conduct into two instrumental values: moral and competence values. He therefore purposefully provides a narrow definition of moral values as modes of conduct which have an interpersonal focus. When these values are violated, they arouse feelings of guilt. In contrast, competence values have a personal focus and arouse feelings of shame and inadequacy when they are violated. A person may experience conflict between two moral values (e.g. behaving honestly and lovingly), between two competence values (e.g. behaving imaginatively and logically), or between a moral and a competence value (e.g. acting politely and offering intellectual criticism).

3.2.4 The 'oughtness' of instrumental values

Rokeach (1973) states that beliefs about the desirability of values may be prescribed or proscribed and thus may carry a sense of 'oughtness' which refers to the social pressure to

prescribe or conform to a particular mode of conduct or end-state of existence. Furthermore, he states that the sense of 'oughtness' is stronger for instrumental values than for terminal values and is more an attribute of moral values than of competence values. The 'oughtness' of a value places pressure on people to behave in ways that will not harm other people.

3.2.5 A value is a conception of the preferable

Carrying on with his definition, Rokeach (1973) states that a conception of the 'preferable' boils down to a special kind of preference specifically, a preference for a particular mode of conduct over another or a preference for one end-state over another end-state. These preferences may be based on the comparisons that people make between different values within their value system – in terms of their importance.

3.2.6 The nature of value systems

Rokeach (1973, p.11) states that our values are integrated into an "organised system of values wherein each value is ordered in priority with respect to other values". This conception of values allows us to define value change as a reordering of value priorities. He furthermore believes that our value systems are relatively stable yet flexible enough to allow for rearrangements of our value priorities in response to changes in culture, society, or significant personal experiences.

Value systems function as the strategies that we use to resolve conflicts and to make decisions. Different situations will generally activate multiple values within our value systems, which make it difficult for us to behave in a manner which is compatible with all the activated values.

3.3 The functions of values

Rokeach (1973) maintains that values serve a number of important functions. Firstly, values function as the standards that we use to guide our on-going activities. Secondly, values guide the way in which we present ourselves to others, help us to evaluate and judge our own as well as the actions of others, and help us to determine whether we are as moral or as

competent as others. Thirdly, values serve as the standards that we use to rationalise the beliefs, attitudes, and actions that would generally be seen as personally or socially unacceptable, which would then in turn damage our sense of morality and competence. Thus, our ability to use our values to rationalise our beliefs, attitudes, and behaviours serves the important function of maintaining and enhancing our self-esteem.

In addition to the cognitive, affective, and behavioural components of values, the final function of values is that they serve to motivate us. Values are said to be motivating because they act as the conceptual tools that we use to maintain and enhance self-esteem, which is seen as the master sentiment – the sentiment of self-regard (McDougall cited in Rokeach, 1973). Values help maintain and enhance the master sentiment of self-regard by helping us adjust to the demands of society, test reality, and defend our sense of self against threat. Thus, values are said to be ego-defensive (defend our sense of self against threat) because they help us to transform personally and socially unacceptable needs, feelings, and behaviours into more acceptable terms.

3.4 Values distinguished from other concepts

It has been noticed that researchers within the field of socialisation have used the term 'values' indiscriminately to such a point that concepts such as attitudes, needs, morals, and interests are apparently synonymous with the concept of values. In an attempt to reduce this conceptual disarray, Rokeach (1973) set out to distinguish the concept of values from various other concepts. The researcher would like to focus on the conceptual distinctions that Rokeach makes between values, attitudes, and needs.

Although the distinction between values and attitudes can be made in a number of important ways, the researcher would like to focus on two points in particular. Firstly, a value is a single specific belief which transcends a specific object or situation whereas an attitude is an organisation of several beliefs which focus on a specific object or situation. Secondly, values are said to play a more central role than attitudes in our personality makeup and cognitive systems. Thus values are said to be "determinants of attitudes as well as behaviour" (Rokeach, 1973, p.18).

Rokeach (1973) states that, while researchers such as Newcomb, Turner, and Converse (1965) and Campbell (1963) have regarded values and attitudes as fairly synonymous concepts, researchers such as Maslow (1964) and French and Kahn (1962) have regarded values and needs as synonymous. Rokeach's frustration with this claim is evident when he states that, if values and needs are equivalent, then even the lowly rat could be said to possess values as it also has needs. Values are not needs but rather the "cognitive representations and transformations of needs, and man is the only animal capable of such representations and transformations" (Rokeach, 1973, p. 20). Our ability to cognitively transform needs into values makes it easier for us to defend, justify, and advocate our needs as personally and socially justifiable, because values represent both personal and social needs. Rokeach (1973, p. 20) provides a clear illustration of this cognitive representation and transformation of needs when he states that the need for sex, which is generally repressed in modern society, "may be cognitively transformed as a value for love, spiritual union, or intimacy".

3.5 The origin of Schwartz's (1992) theory of basic human values

With regard to their definition of values, Schwartz and Bilsky (1987) adopt Rokeach's (1973, p. 25) "extended definition of a value and a value system". Schwartz and Bilsky (1987, p. 550) define values as "concepts or beliefs, about desirable end-states or behaviours, that transcend specific situations, guide selection or evaluation of behaviour and events, and are ordered by relative importance". They believe that, although previous definitions of values outlined the characteristics of values, these values conveyed very little about the possible content of values. Basing their research on this issue, Schwartz and Bilsky set out to provide an outline of the content domains of values.

3.5.1 Hypotheses with regard to the content of human values

In their assessment of the content of values, Schwartz and Bilsky (1987) developed a typology of values based on the theoretical assumption that values are cognitive representations of three universal needs: (1) biological needs, (2) the need to coordinate interpersonal interactions, and (3) the need to ensure the welfare and survival of social groups. Their theoretical assumption resembles Rokeach's (1973) belief that values represent

both personal and social needs. In a similar fashion to Rokeach, Schwartz and Bilksy (1987) stated that these universal needs are cognitively represented as values.

Schwartz and Bilsky (1987) theorised that different values develop from the three universal needs. Values that develop from the first need are said to satisfy individual interests whereas values that develop from the second and third needs are said to satisfy social or collective interests. They also state that it is possible to have values which satisfy both individual and collective interests. Based on the theoretical assumption that people are motivated to respond to these three universal needs, Schwartz and Bilsky (1987, p. 551) developed what they have seen as "seven universal and distinctive motivational domains of values".

Due to a need to restrict the scope of this section, the seven value types or motivational domains will not be discussed in detail. The important point is that Schwartz and Bilsky (1987) arrived at these seven motivational domains (or value types) by referring to Rokeach's (1973) value survey. This survey contained what Rokeach saw as 18 separate terminal values and 18 separate instrumental values. Although Rokeach believed that these values could be clustered into 'constructs', he did not propose a theory of the content of these 'constructs' (Schwartz, 1994). Essentially, the seven motivational domains identified by Schwartz and Bilsky (1987) developed from their belief that the 36 items within Rokeach's (1973) value survey could be clustered into seven distinct constructs, or so-called motivational domains. These seven 'motivational domains' are illustrated in Figure 3.1.

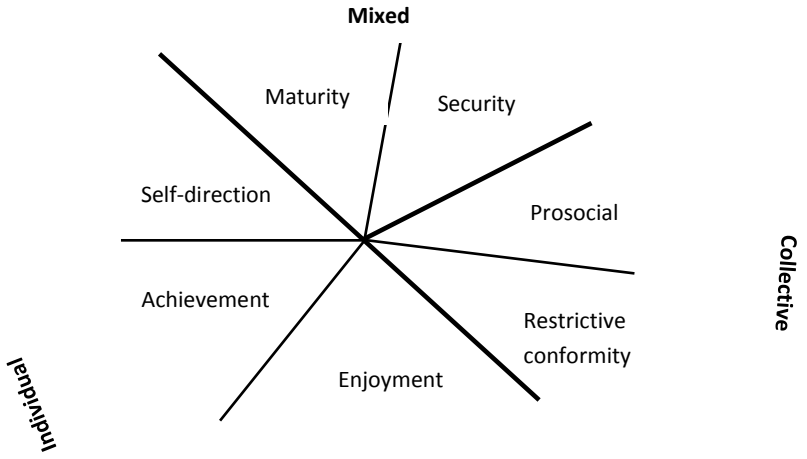

Figure 3.1 The hypothesised structural relations between value domains (Schwartz & Bilsky, 1987)

3.5.2 Hypotheses with regard to the structure of human values

In addition to their hypotheses about the content of values, Schwartz and Bilsky (1987) developed four hypotheses relating to the structure of human values. The first hypothesis was that the relations between different values can be separated into two separate regions, with one region expressing terminal values and the other region expressing instrumental values. The second hypothesis was that the motivational domains could be arranged in a circular structure – as represented in Figure 3.1. Each wedge would contain values that specifically relate to the motivational domain or value type. The third hypothesis was that the arrangement of the motivational domains (value types) could be organised into three distinct regions based on the interest that they serve (individual, collective, or mixed interests). However, the fourth and final hypothesis is believed to be the most important, namely that the structural organisation of the motivational domains is also determined by the apparent compatibilities and contradictions between the conceptual definitions of the motivational domains.

Referring to this hypothesis, Schwartz and Bilsky (1987) maintained that it would be difficult for people to strive towards achieving values within contradictory motivational domains – for example values from the maturity and enjoyment domains or values from the self-direction and restrictive conformity domains (Figure 3.1). In contrast, it would be easier for people to pursue values from compatible domains – for example, values from the prosocial and security domains or values from the achievement and self-direction domains.

In order to test their hypothesised structure of values, Schwartz and Bilsky (1987) made use of a method called ‘smallest space analysis’. This method allowed them to pin-point the position of the motivational domains or value types, within a multidimensional space. The distances between the values represented the empirical relations between the value types. Values that were hypothesised to be conceptually more similar to each other were supposed to be closer to each other within the multidimensional space – and vice versa for conceptually opposite value types.

The results from Schwartz and Bilsky’s (1987) study showed strong confirmation that the motivational domains can be meaningfully arranged into regions, according to the interests

served by each domain. Their study also provided evidence which clearly supported the existence of the seven motivational domains. However, Schwartz and Bilsky did believe that future research should focus on the possibility of a few additional motivational domains or value types, one being the motivational domain which they could not test namely social power. After confirming a number of their hypotheses, Schwartz and Bilsky set out to test the generalisability of the content and structure of human values.

In their follow-up study, Schwartz and Bilsky (1990) tested all their previous hypotheses but, this time, they used a number of diverse samples. They included samples from Israel, Germany, Australia, the United States, Hong Kong, Spain, and Finland. Schwartz and Bilsky confirmed a number of their previous hypotheses except for the hypotheses which focused on the structure of the motivational domains. They found that the compatibilities and conflicts between the motivational domains in the Hong Kong sample differed from their hypothesis. They then hypothesised that this difference may have been due to cultural differences. As a result, more diverse samples would be needed to support the universality of Schwartz and Bilsky's (1987) theory of the content and structure of human values.

3.5.3 Modifications to the content of value types

Continuing from his previous work, Schwartz (1992) set out to examine whether the content of values are universal, whether previous work had established a comprehensive set of values, whether there is equivalence in the meaning of values, and whether these values can be arranged into a meaningful structure. In his exploration of previous hypotheses, Schwartz (1992) decided to make a few modifications to Schwartz and Bilsky's (1987) theory of the content and structure of human values.

The first modification that Schwartz (1992) made to the content of values was the addition of three new value types namely, tradition, stimulation, and spirituality. Based on his previous research, Schwartz (1992) also believed that four of the earlier value types (enjoyment, maturity, prosocial, and security) needed to be reconceptualised. Three of these values had to be relabelled in order to reflect their reconceptualisation. Schwartz (1992) presented the following additions and modifications to the hypothesised motivational types of values:

1) *Self-direction*: Aligned with Schwartz and Bilsky's (1987) definition, the major goal of this value type is still independent thought and action. This value relates to the organismic need to attain a sense of control and mastery. Schwartz (1992) proposed new markers for this value type, namely the values of creativity, freedom, curiosity, independence, and choosing one's own goals.

2) *Stimulation*: Schwartz (1992) maintained that this new value type relates to the organismic need for variety and stimulation, which helps to maintain optimal levels of activity. Schwartz used the values of excitement, novelty, and challenge in life to mark this new value type.

3) *Hedonism*: This value, which was previously called "enjoyment", has been more narrowly defined as the organismic need for pleasure and sensual gratification. Schwartz (1992) dropped the values of happiness and cheerfulness. The values which marked this new value were pleasure and enjoying life.

4) *Achievement*: In a slight refinement of this value, Schwartz (1992) defined this value type as the need to obtain personal success or social recognition by demonstrating one's competence in accordance with established social standards. Individual displays of competence according to social standards fulfils the organismic need to obtain the resources necessary for one's survival, as well as the social need for successful social interaction and institutional functioning. The values which Schwartz used to mark this value type included ambition, success, capability, and influence.

5) *Power*: Schwartz (1992, p. 9) stated that the central goal of this value is the "attainment of social status and prestige, and control or dominance over people and resources". He stated that this value probably fulfils all three universal needs since social institutions tend to require some degree of status differentiation in order to smooth social interactions. To justify the use of power and control, and for group members to accept it, groups have to cognitively transform the need for power into the value of power. Schwartz (1992) used the values of authority, wealth, social power, preserving my public image, and social recognition to mark the value type of power. He makes the reader aware that, although both the power and the achievement value

types focus on social esteem, an important distinction can be made between the two value types. Whereas the achievement value type focuses on attaining social esteem through active displays of competence, the power value type focuses on maintaining social esteem by displaying one's influence in the broader social system through displays of dominance.

6) *Security*: Aligned with Schwartz and Bilsky's definition (1987), Schwartz (1992, p. 9) stated that the goal of this value type is to ensure "safety, harmony, and stability of society, relationships, and of self". The values which mark this value type include social order, family security, national security, reciprocation of favours, cleanliness, sense of belonging, health.

7) *Conformity*: As with Schwartz and Bilsky's (1987) definition, Schwartz (1992) stated that this value type relates to restraint of actions or impulses which are likely to upset or cause harm to others or which violate social expectations. This value type stems from the need to maintain smooth social interactions and group functioning. The values which mark this value type are: obedience, self-discipline, politeness, and honouring elders.

8) *Tradition*: This new value type refers to the need for people to respect, commit to, and accept the customs and beliefs of their culture or religion. Like conformity, this value type fulfils social needs. Schwartz (1992) used the values of respect for tradition, humility, devoutness, modesty, and accepting my portion in life as markers for this value type.

9) *Spirituality*: Schwartz (1992) stated that, if seeking ultimate meaning in life is a basic human need, then it may possibly be a basic human value type. Schwartz was somewhat sceptical about how universal this value type would be. He also believed that spirituality may not necessarily be a distinct value type but rather that a need for meaning in life may be found within multiple value types, which would differ for different cultural groups. Nonetheless, he stated that a consistent grouping of the values which mark this value type (spiritual life, meaning in life, inner harmony,

detachment, unity with nature, accepting my portion in life, and devoutness) would indicate the universal existence of a spirituality value type.

10) *Benevolence*: The conceptual narrowing of the previous prosocial value type resulted in Schwartz's (1992) identifying two new value types, specifically benevolence and universalism. Whereas the prosocial value type referred to the need to ensure the welfare of other people (Schwartz & Bilsky, 1987), benevolence refers to the need to preserve and enhance the wellbeing of the people that an individual interacts with on a frequent basis. Schwartz (1992) identified the values of being helpful, loyal, forgiving, honest, responsible, as well as true friendship and mature love as markers of the benevolence value type.

11) *Universalism*: Schwartz (1992) stated that the universalism value type resulted from the merging of the former maturity and prosocial value types. Schwartz stated that the distinction between the benevolence and universalism value types was necessary because individuals from different cultures differ in to their judgements of who fits in or falls out of their groups. "Universalism refers to the need for people to develop an understanding, appreciation, tolerance, and protection for the welfare of all people and for nature" (Schwartz, 1992, p.12). This value type includes the values of broad-mindedness, equality, social justice, world at peace, world of beauty, unity with nature, wisdom, and protecting the environment.

3.5.4 Modifications to the structural relation between value types

Based on the additions to and revisions of the content of values, new hypotheses had to be developed to deal with the dynamic relations between the value types. Aligned with Schwartz and Bilsky's (1987) first hypothesis that values serve different interests, Schwartz (1992) hypothesised that the new set of value types would be able to be distinguished into different regions, depending on the interests that they serve. Schwartz (1992) hypothesised that the value types power, achievement, hedonism, stimulation, and self-direction serve individual interests and that these values would form a region opposed to the value types benevolence, tradition, and conformity which serve collective interests. Universalism and security values,

which Schwartz (1992) had seen as serving mixed interests, were hypothesised to be located between the boundaries of the individual and collective interests regions.

With regard to Schwartz and Bilsky's (1987) hypothesis about the compatibilities and conflicts between the value types, Schwartz (1992) developed a number of secondary hypotheses. Schwartz hypothesised the pursuit of the following nine pairs of value types as compatible:

> (1) power and achievement – both emphasize social superiority and esteem; (2) achievement and hedonism – both are concerned with self-indulgence; (3) hedonism and stimulation – both entail a desire for affectively pleasant arousal; (4) stimulation and self-direction – both involve intrinsic motivation for mastery and openness to change; (5) self-direction and universalism – both express reliance on one's own judgment and comfort with the diversity of existence; (6) universalism and benevolence – both are concerned with enhancement of others and transcendence of selfish interests (most spirituality values also share this concern); (7) tradition and conformity – both stress self-restraint and submission (some spirituality values also share this stress); (8) conformity and security – both emphasize protection of order and harmony in relations; (9) security and power – both stress avoiding or overcoming the threat of uncertainties by controlling relationships and resources (Schwartz, 1992, pp. 14-15)

In addition to the above-mentioned compatibilities between value types, Schwartz (1992) hypothesised that the pursuit of conceptually opposed values would give rise to an individual experiencing a great deal of psychological and social tension (conflict). Schwartz stated that the first conflict is that of the self-direction and stimulation versus conformity, tradition and security value types. This represents a conflict between the need for independent thought and action and the need to think and act in socially acceptable ways in order to preserve social practices and stability. The second conflict is between the value types which focus on the concern for the welfare of others (universalism and benevolence) and the value types which focus on the pursuit of one's own interests (achievement and power). The third conflict is hedonism versus conformity and tradition. This represents a conflict between focusing on satisfying one's own desires and focusing on an acceptance of the need to restrain one's behaviour in accordance with social expectations. The final conflict is that of the search for meaning in life (spirituality) versus the pursuit of sensual gratification and material rewards (hedonism, power, and achievement). All the above-mentioned compatibilities and conflicts

can clearly be seen in Figure 3.2, which visually represents the hypothesised structural relations between value types.

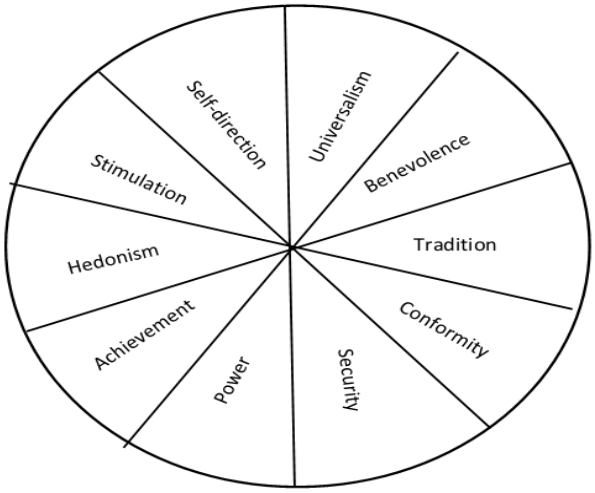

Figure 3.2 The revised hypothesised structural relations between value types (Schwartz, 1992)

3.5.5 The assessment of the modifications

With regard to the hypotheses relating to the content of values types, the results from Schwartz's (1992) study indicated that spirituality could not be seen as a universal value type because it met the criteria for forming a distinct region in only 8 of the 40 samples. However, the other 10 value types were found in close to 70% of the samples.

With regard to the hypotheses which focused on the structural relations between the value types, an assessment of the 40 samples found that the results matched the hypothesised structural relations between value types. Schwartz (1992) pointed out that the substantial confirmation of the hypothesised content and structure of the value types made it possible to combine the samples and conduct a single analysis of the relations between and structure of the value types. This analysis would provide a reasonable picture of the universal relationships among the values across cultures.

Following the results of his analysis, Schwartz (1992) stated that the data confirmed that people from various cultures clearly distinguish 10 value types. Only the spirituality value type failed to show evidence of being a universal value type. Based on its conceptual

definition, Schwartz believed that people may find meaning by pursuing various types of values. The values of a spiritual life, meaning in life, unity with nature, and inner harmony, which marked the value type of spirituality, frequently intermixed in the universalism and benevolence value types. This finding supported the idea that "self-transcendence through concern for others, broadly defined, is one common way to pursue meaning" (Schwartz, 1992, p.38).

After splitting Schwartz and Bilsky's (1987) prosocial value type, Schwartz (1992) found that the results from his analysis strongly supported the new value types of benevolence and universalism. These two value types were almost always adjacent to each other in Schwartz's analysis, which illustrates the compatibility of the interests which they serve.

The most interesting finding from Schwartz's (1992, pp. 39-40) analysis was that, although the value types of conformity and tradition consistently appeared in distinct regions, "tradition was usually found toward the periphery of the circle, outside conformity, rather than between conformity and benevolence" (as is illustrated in Figure 3.3). Schwartz (1992) states that the structure of the relations between the value types is related to the motivational goals (interests) that the value types express. The location of the tradition value type towards the periphery of the circle, with conformity towards the middle, suggests that both these value types express the same motivational goal. Based on their conceptual definitions, the point of distinction between these two value types may be the linked to the object (whom) people subordinate themselves to.

Schwartz (1992) maintained that conformity may represent subordination to the expectations of social institutions (parents, teachers, boss, police) whereas the tradition value type may suggest subordination in a more abstract sense – for example, subordination to religious and/or cultural beliefs or practices. Schwartz also suggests that the distinction could be based on the temporal distance of expectations. Conformity demands subordination to more current and possible changing expectations whereas tradition requires subordination to past and unchangeable expectations. The new location of tradition towards the outside of the circle and conformity towards the centre of the circle resulted in Schwartz's having to reassess the hypothesised compatibilities and conflicts between the value types.

Schwartz (1992) stated that the results of the smallest space analysis indicate that the conformity value type has a slightly positive correlation with all the value types. Tradition's position towards the periphery of the circle also signifies that, compared to the conformity value type, the tradition value type is in greater conflict with the hedonism, stimulation, and self-direction value types.

Schwartz's (1992) results confirmed his hypothesis that values types which fulfil individual interests (power, achievement, hedonism, stimulation, self-direction) will form a distinct region which would be adjacent to the value types which serve collective interest (benevolence, tradition, conformity). Those values which served mixed interests (universalism, security) also emerged in the positions between the boundaries of the individual and collective interests regions, as hypothesised. The results from the 40 samples included in his study also confirmed Schwartz's hypothesis regarding the compatibility between nine pairs of values. Referring to his hypothesis on the conflicts between different value types, Schwartz (1992) suggested that there may be an easier way to view these conflicts.

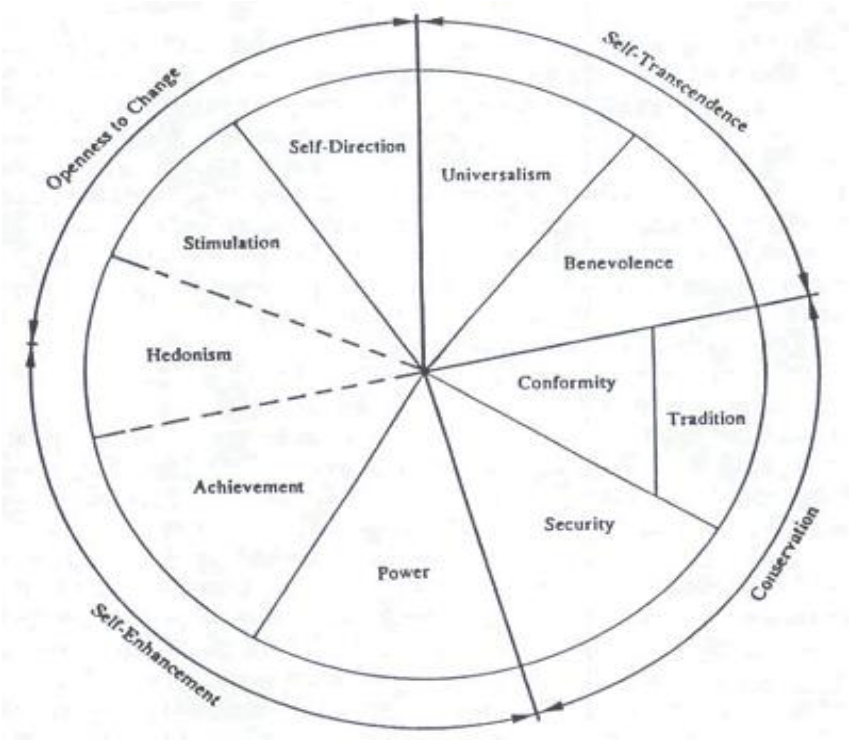

Figure 3.3 A revised illustration of the hypothesised structural relations between value types (Schwartz, 1992)

Schwartz (1992, p. 43) stated that, based on the relationships between the value types, it is possible to view the total value structure as being encapsulated by "four higher order value types that form two basic, bipolar, conceptual dimensions". The first bipolar dimension, openness to change versus conservation, contrasts the value types which relate to people's need to "follow their own intellectual and emotional interests in unpredictable and uncertain directions" and those value types which "preserve the status quo and the certainty it provides in relationships with close others, institutions, and traditions" (Schwartz, 1992, p. 43). The second bipolar dimension, self-enhancement versus self-transcendence, focuses on the contrast between those value types which focus on enhancing one's own personal interests and those value types which relate to the need to transcend one's own interests in an attempt to promote the welfare of those both in and out of one's groups, as well as the welfare of nature. These higher-order values are illustrated in Figure 3.3.

3.5.6 A motivational continuum

After discussing the important findings relating to the content, relations between, and the structure of the value types, Schwartz (1992) sought to address a point which had not previously been mentioned about the discreteness of the value types. The method which Schwartz and Bilsky (1987, 1990) and Schwartz (1992) used in order to test the theory of basic human values, namely smallest space analysis (SSA), worked by positioning a value in a two-dimensional space based on its correlations with other variables. The values which were highly positively correlated with each other were most closely situated to each other and the values which were highly negatively correlated with each other were situated further apart from each other. The values which marked a particular value type generally fell within the same region, thus forming a value type (e.g. benevolence). However, the values which fell in areas adjacent to the value type were also slightly correlated with the value type.

Schwartz (1992, p. 45) stated that, based on the method of analysis, the lines which partition the vale types "represent conceptually convenient decisions" about where one value type begins and ends. The locations of many values within the two-dimensional space support the view that the differences between value types, particularly adjacent value types, should be seen as "continuous rather than as discrete" (Schwartz, 1992, p. 46). In fact, "it is this continuum that gives rise to the circular structure" of values (Schwartz, 1994, p. 24).

Schwartz (1992) states that, despite the continuity in values, the significant consistency in the placement of the values which marks the different value types, indicates that the distinctions between the different value types are meaningful.

3.6 Universality of the content and structure of human values

In the conclusion of his study, Schwartz (1992) was confident that the data confirmed that people from various cultures clearly distinguish 10 value types and that the structure of the relations between these value types was highly consistent. However, Schwartz was still somewhat hesitant to state that his theory of the content and structure of basic human values was universally applicable. In an attempt to confirm the universality of his theory, Schwartz attempted to build up a large database which included information from diverse cultures.

Two years after his ground-breaking research, Schwartz (1994) had developed a database which was twice the size of his previous database. Despite the fact that this database included 97 samples from 44 countries, Schwartz was still a bit tentative about the universality of the dynamic relations between the value types. He was however more confident about the near universality of the four higher order value types and the universality of people's recognition of the ten value types, which was reaffirmed by Schwartz and Sagiv (1995).

3.7 The greatest challenge to the universality of the theory of basic human values

Between 1994 and 2001, the size of the database which could be used to assess the universality of the content of and dynamic relations between value types exploded from 97 samples from 44 countries, to 200 samples from 60 countries. Schwartz, Melech, Lehmann, Burgess, Harris, and Owens (2001) stated that these samples, which were collected from every inhabited continent, greatly supported the universality of the content of and dynamic relations between values. However, Schwartz et al. (2001) were greatly troubled by 5% of the samples in this database, which deviated considerably from his theory in terms of the structure or dynamic relations between the value types. These deviations were most common and extreme in samples from sub-Saharan Africa, particularly South Africa, as well as from more rural and less developed countries such as India and Malaysia.

These deviations suggested that Schwartz may have had to accept that the values theory is not universally applicable. Instead of throwing in the towel, however Schwartz et al. (2001) believed that the problem may lie not with the theory but instead with the fact that the measurement instrument may have been causing the deviations in the samples from the more rural and less developed nations.

Schwartz et al. (2001) stated that the instrument in question, The Schwartz Value Survey (SVS), may have been too abstract for people from these nations because the SVS asked participants to rate the importance of each value listed in the instrument as "a guiding principle in my life". "Because people rarely spend time evaluating and quantifying the guiding principles in their life, most find this task novel and intellectually demanding" (Schwartz et al., 2001, p. 522). Realising that the SVS was too abstract, Schwartz et al. (2001) set out to develop a new measure of basic human values. With a more concrete and less cognitively demanding measure in place, namely the Portrait Values Questionnaire (PVQ), Schwartz et al. (2001) set out to test the theory in countries which previously suggested that the theory did not apply.

Schwartz et al. (2001, p. 526) stated that the "most perplexing data for the values theory came from a sample of Black South African university students". The results from this sample illustrated that the values which marked the different value types were highly intermixed and that only one value type met the criteria set out for being able to classify a value type. The most serious concern for Schwartz et al. (2001) was that the data did not indicate the hypothesised circular order or dynamic relations among the value types. Based on these results, Schwartz et al. believed that South Africa was the best candidate for retesting the values theory using the more concrete PVQ.

Using a nationally representative sample of 3,493 South Africans, Schwartz et al. (2001) found that the PVQ offered results which were more supportive of the content of and dynamic relations between the value types (values theory). In order to make sense of previous findings, the authors used the 2000 black South Africans included in the sample in order to assess the content and structure of the value types. The most significant deviation from the theory was that the security value type was located in the higher-order self-transcendence region instead of in the conservation region (as according to the hypothesised structure in

Figure 3.3). Schwartz et al. (2001) suggested that this deviation may reflect how powerful historical events, such as apartheid, may affect the value structure. Despite this deviation, they believed that the deviations from this sample had little conceptual significance and that the observed structure was highly similar to the hypothesised value structure.

These results suggested that "the failure of the values theory in the earlier sample was due to problems of measurement rather than to limitations of the theory" (Schwartz et al., 2001, p. 528). After Schwartz was satisfied that the values theory was universally applicable, he turned his attention to the way in which people arrange the importance of different values within their value systems or, in other words, their value priorities.

3.8 The prioritisation of values – value systems

In his previous works, Schwartz (1994) had mentioned that the statements about the universality of the content and structure of value types did not apply to the relative importance people placed on different values within their lives. Schwartz and Bardi (2001) stated that many studies have in fact revealed a great degree of variation in the way in which individuals and societies arrange the importance of different values within their lives (their value priorities). However, they also stated that these researchers may have found these significant variations because they were entirely fixated on differences in value priorities. When they shifted their focus to the similarities between groups or nations, Schwartz and Bardi (2001) found a striking degree of agreement between individuals and societies with regarding the importance of certain values within their lives. Not wanting to drift too far away from his own topic of interest, the researcher focuses on another important finding from studies on people's value priorities, namely the possibility of sex-based differences in value priorities.

3.9 Sex-based differences in value priorities

In their review of the literature which focused on sex-based differences in value priorities, Prince-Gibson and Schwartz (1998, p. 49) stated that the literature remains divided on the matter of the "existence, sources, magnitude, and implications of reliable and stable gender differences" in value priorities. Rokeach (1973, p. 57) believed that there was reason to

expect sex-based differences in values, since there was a "great deal of evidence to suggest that society socializes men and women to play their sex-roles very differently". Rokeach believed that, because of differences in the way males and females are socialised, males are more likely to place a higher level of importance on the values of achievement and intellectual pursuits (self-direction), whereas females are more likely to place a higher level of importance on the values of love, affiliation, and the family (benevolence). Using Schwartz's (1992) higher-order value types (illustrated in Figure 3.3), one could state that Rokeach's (1973) beliefs would translate into males placing a higher priority on self-enhancement value types (mainly hedonism, achievement, and power) and females placing a higher priority on self-transcendence values (particularly benevolence).

The first exploration of sex-based differences in value priorities based on Schwartz's (1992) value types was undertaken by Prince-Gibson and Schwartz (1998). They developed the hypotheses that men would show a greater preference for power, achievement, stimulation, and self-direction value types and that women would show a greater preference for benevolence, conformity, and tradition value types. No differences were expected for the universalism and security value types. Based on the results of their analysis, Prince-Gibson and Schwartz (1998) concluded that there was no evidence to support their hypotheses regarding sex-based differences in value priorities. However, in the light of the history of the research which focused on the possibility of sex-based differences in value priorities, Prince-Gibson and Schwartz's (1998) study was unlikely to be the final say in the argument.

Schwartz and Rubel's (2005) study can be seen as the first study to significantly challenge the claim that there are universal sex-based differences in value priorities. In their search for the possibility of sex-based differences in value priorities, they conducted four separate studies which, when added together, represented 127 samples from 70 geographically disperse countries (N = 77,528).

Based on an integration of the findings from the four studies, Schwartz and Rubel (2005) concluded that there are significant sex-based differences in value priorities. Men consistently attributed greater importance to power, stimulation, hedonism, achievement, and self-direction value types than did women. On the other hand, women consistently attributed greater importance to benevolence and universalism value types and less consistently to the

security value type. As hypothesised, there were no significant differences for the conformity and tradition value types (Schwartz & Rubel, 2005).

Schwartz and Rubel (2005) maintain that, despite these differences, sex-based differences in value priorities are small (median d= .15; maximum= .32) and typically explain less variance than age and much less than culture. Based on their results, they also explored how different cultural variables affected the size and direction of differences in value priorities. They found that men from poorer countries attributed substantially more importance to the self-direction value type than women. On the other hand, in richer countries which are more supportive of autonomy, there were no sex-based differences in the importance of self-direction. Schwartz and Rubel believe that it is tempting to interpret this finding as an indication that, as gender role differentiation decreases with the advancement of industrialisation and individuation, that sex-based differences in value priorities would be nullified. However, this is not the case for many of the other sex-based differences in value priorities.

For example, when Schwartz and Rubel (2005) used national measures of gender equality to predict sex-based differences in power and benevolence, they found somewhat contradictory results. Instead of indicating convergence in the importance that men and women place on the value types of power and benevolence, the results suggested that gender equality leads to divergence in the importance that men and women place on the value types of power and benevolence. Together with the consistency and cultural variability of the sex-based differences in value priorities, these authors stated that the strange interplay between the cultural variables of gender equality and gender demanded explanation.

In a follow-up study, Schwartz and Rubel-Lifschitz (2009) assess how the cultural variable of gender equality may affect the apparent cross-cultural sex-based differences in value priorities. In their study, they hypothesise that gender equality relates positively to the value types of benevolence, universalism, self-direction, stimulation and hedonism but that it is negatively related to the value types of security, tradition, conformity, power, and achievement values. Furthermore, it was hypothesised that these value types associations with gender equality would be in the same direction for both men and women. However, Schwartz and Rubel-Lifschitz (2009) make a very important ‘disclaimer’ hypothesis when

they state that the strength of these associations would differ in relation to the inherent importance that men and women place on a particular value type.

What this implies is that, if a certain value type is more important for men (e.g. self-direction), and the hypothesised changing societal conditions enable its expression and pursuit, then the importance of that value type would increase more sharply for men than for women, based on the belief that self-direction is inherently more important to men. Conversely, if societal conditions discourage or restrain the pursuit and expression of a certain value type, for example 'power', then the importance of power will decrease more slowly for men than for women because the value type of power is inherently more important to men.

Based on the results of their study, Schwartz and Rubel-Lifschitz (2009) found that both men and women attributed more importance to the value types of benevolence, universalism, self-direction, hedonism, and stimulation values. They also found that both males and females attributed less importance to the value types of power, achievement, security, conformity, and tradition values. Despite the fact that gender equality's association with the different value types was in the same direction for men and for women, they still found significant sex-based differences in value priorities. "Men attributed more importance than did women to power, achievement, hedonism, stimulation, and self-direction values. Women attributed more importance than did men to benevolence, universalism, and security values. There were no consistent differences for conformity and tradition values" (Schwartz & Rubel-Lifschitz, 2009, p. 178). The confirmation of the 'disclaimer' hypothesis strongly supported the idea that males and females differ with regard to the values that they find as inherently important.

3.10 What can explain these differences?

Following on from the work of Schwartz and Rubel (2005) and Schwartz and Rubel-Lifschitz (2009), the researcher will make use of social role theory and evolutionary psychology to explain the above-mentioned sex-based differences in value priorities. In the next section, an overview of both theories will be provided. This will be followed by an evaluation of the theories' ability to explain the origin of these sex-based differences in value priorities. The section culminates with an attempt to explain how the two theories' explanation of sex-based

differences in value priorities can account for the sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. This step is taken in order to illustrate how, together with the findings of sex-based differences in value priorities, the two theories offer a potential guide to the development of hypotheses relating to which specific value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur on.

3.11 Working towards an explanation of sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values

The next section commences with an attempt to clarify the distinction between sex and gender. In making this distinction, the discussion turns to the cultural messages pertaining to gender and why people find it important to pay attention to these cultural messages. This leads to a focus on the content of the cultural messages pertaining to gender, which subsequently offers an entry point into an overview of social role theory's account of the potential origin of the psychological and behavioural differences between males and females.

After this focus on social role theory, the discussion turns to an overview of evolutionary psychology's account of the potential origin of the psychological and behavioural differences between males and females. The section continues by drawing on social role theory's and evolutionary psychology's accounts of the potential origin of the psychological and behavioural differences between males and females in order to explain the potential origins of sex-based differences in value priorities. The section concludes with a discussion of how the same theories can be used to develop hypotheses around the specific value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur.

3.11.1 Social role theory

3.11.1.1 Gender: what it means and why it matters

Before moving on with this discussion, the researcher would like to make a distinction between sex and gender. The researcher uses 'sex' to refer to the biological characteristics

associated with being either male or female, particularly making the distinction between males and females based on their reproductive organs. In contrast, 'gender' refers to the meaning that a cultural group attaches to the sexual categories of male and female (Ruble, Martin, & Berenbaum, 2006; Schwartz & Rubel, 2005; Schwartz & Rubel-Lifschitz, 2009; Wood & Eagly, 2009). Thus, within this section, the categories male and female are tied to the concept of sex and the categories men and women are tied to the concept of gender.

The suggestion in this discussion, is that understanding the concept of gender as a noun makes it very difficult to understand how or why gender is important to people. It is believed that classing the word 'gender' as a verb allows one to understand gender as something which people do or something which is performed by people (Butler, 1990). Classing gender as a verb also helps to understand what Wood and Eagly (2009) refer to when they introduce the concept of gender identity. Gender identity actually refers to how people make use of the cultural messages attached to their sexual category in order to construct their own understanding of themselves as either a man or a woman. However, it is fair enough to say that people use cultural messages to construct their gender identities but what do cultural messages pertaining to gender mean?

Cultural messages refer to the collection of beliefs that a group of people hold with regard to the ways in which men and women actually behave or should behave (Eagly, 1987; Eagly, 2009; Eagly, Wood & Diekman, 2000). These socially shared expectations or beliefs emerge from people's observations of the general or stereotypical roles that men and women occupy within different settings – that is at home, work, or in public. The greater the extent to which men and women occupy different roles within a society, the greater the consensus amongst members of that society is regarding the activities, roles, and behaviours that men and women should perform or fulfil (Eagly et al., 2000). After discussing what these gender-related cultural messages are, the researcher is stuck with the question of why people would find it necessary to pay attention to the cultural messages surrounding gender.

Men and women find it necessary to pay attention to the cultural messages surrounding the ways in which the members of their sex should behave because other people expect them to conform to these socially-expected standards of behaviour (Eagly, Wood, & Johannnesen-Schmidt, 2004). Both men and women come to understand the costs and benefits associated

with different behaviours through their recognition of the socially agreed-upon and socially expected behaviours linked to the men and women within their society. Closely aligned with Schwartz and Bilsky's (1987) universal need to coordinate social interactions, socially expected behaviours tend to promote social interactions and are therefore likely to be rewarded by others, whereas behaviours that deviate from the socially expected behaviours of people from a particular sex, are likely to be rejected. If McDougall (cited in Rokeach, 1973) is correct about the master sentiment being the attempt to preserve one's self-regard or how one feels about oneself, then it is likely that people will be motivated to avoid being rejected by others and that they will seek to behave in ways that will be accepted by others.

Thus, gender role expectations frequently provide the social cues that people use to determine how they should respond in a situation, particularly in unfamiliar, ambiguous, or confusing situations (Eagly et al., 2000). However, the extent to which these gender role expectations affect how people feel about themselves and in turn, the way in which they behave, is contingent on the extent to which they use these gender role expectations to construct the way in which they think about themselves – that is their self-concept (Eagly et al., 2004; Eagly et al., 2000).

Various authors state that the self-concept is multifaceted and that the facets within the self-concept can be organised (Marsh, 1990; Marsh & Shavelson, 1985; Shavelson & Bolus, 1982). This implies that gender identity is only one facet of the way in which people think about themselves and that the centrality of gender identity within their overall conception of self can also vary. In view of the previously mentioned argument regarding the powerful influence that social expectations can have on the way in which people feel about themselves, it is important to note that gender role expectations are amongst the most powerful influences on the way in which people feel and think about themselves (Wood & Eagly, 2009).

Gender identity features prominently in the way in which people think about themselves and others because in all social settings, "people must engage in social interaction as a man or a woman and therefore must contend with their own and others' expectations concerning the behaviour that is typical and appropriate for individuals of their sex" (Eagly et al., 2000, p. 160). Gender role expectations are ubiquitous or ever-present in our daily lives because gender categorisation is a fundamental part of social interaction. The ubiquity of gender in

social interactions is illustrated by research which has found that “sex is the personal characteristic that most readily captures perceivers' attention” (Eagly et al., 2000, p. 133). Thus, gender serves as a lens through which we see ourselves and the world (Wood & Eagly, 2009).

The discussion thus far has attempted to argue that the gender role expectations that people internalise have a strong influence on the way that they feel and think about themselves and others as well as on the ways in which they behave. However, throughout this section, gender has typically been discussed in a generalised manner. In the section which follows, the researcher will present the principles of social role theory, which illustrate that the content of the cultural messages attached to the sexual categories of male and female are quite distinct.

3.11.1.2 The principles of social role theory

In the previous section, gender was discussed in a generalised manner. The researcher discussed what is meant by cultural messages pertaining to gender but avoided delving into a discussion of the content of these cultural messages. The content of the cultural messages pertaining to gender can however be seen as the entry point into social role theory’s discussion of the psychological and behavioural differences between males and females.

It is inferred from the work of Eagly et al. (2000) that the content of the cultural messages pertaining to gender refers to the social expectations that the members of a social/cultural group hold in relation to the roles that males and females should occupy, the personal characteristics they should possess, the behaviours they should display.

Social role theory argues that the social expectations that people hold about the sexes are based on their observations of the roles that males and females fulfil, the way in which labour is divided between the sexes, and the structure of power between the sexes within their society. These observations lead to the development of beliefs which then constitute gender roles. These gender roles, which are mediated by a number of processes, eventually bring about real differences in behaviour (Eagly et al., 2000).

Linked to the observed differences in the roles that males and females occupy, the first principle of social role theory is that males and females occupy different roles within society (Diekman & Eagly, 2008; Eagly, et al., 2000; Eagly, Wood, & Johannesen-Schmidt, 2004). Social role theory maintains that, especially within western societies, females have, to a greater extent than males, occupied roles that involve domestic activities and communal behaviour (e.g. nurturing children, maintaining the household, and providing services to others). As a result of occupying these roles, the psychological attributes that encourage these roles have come to be socially expected of females (Wood & Eagly, 2009). In addition, since these feminine gender roles encourage close, intimate, and interdependent relations with others, females have developed interdependent self-construals.

In contrast, males have, to a greater extent than females, occupied roles that involve economic activities and directive or assertive behaviour (e.g. the acquisition of resources, leadership, and self-assertion). These masculine gender roles encourage males to develop independent self-construals through which they are encouraged to be independent or more autonomous (Wood & Eagly, 2002). As a result, the psychological attributes that encourage these roles have come to be socially expected of males and associated with the masculine gender identity (Wood & Eagly, 2009).

This assigning of men and women to different social roles is closely aligned with the traditional breadwinner-housekeeper division of labour or Bakan's (1966) agentic versus communal distinction. However, while social role theory does not take a functionalist perspective – as held by the functionalists Parsons and Bales (1955) – on this role differentiation, it does take from the functionalist perspective the point that gender roles do in fact reflect the division of labour, where men primarily fulfil the role of the breadwinner and women fulfil the role of the homemaker. However, it deems that this role differentiation and, in turn sex differences in behaviour, results from shared social expectations of what is seen as the appropriate conduct of men and women within a society. The theory assumes that these gender roles are dynamic and therefore that broader cultural or societal changes within occupational and family roles will alter social expectations of the roles and behaviours that are seen as appropriate for men and women (Eagly et al., 2000).

Eagly et al. (2000) find it important to discuss the different social roles that males and females occupy because social role theory maintains that these roles bring about not only sex-based differences in psychological attributes and gender identity but also differences in the behaviours of males and females. Thus, what social role theory proposes is that the assignment of men and women to different social roles is the basic underlying cause of sex-based differences in behaviour (Eagly et al., 2000). However, in order for social role theory to be a convincing theory of the origins of sex-based differences in behaviour, it must have sufficient depth in its explanation of these differences. Thus, social role theory turns to proposing what can account for the assigning of men and women to different social roles.

In response to this question, social role theory posits that the distribution of men and women into different social roles originates from the way in which labour is divided between the sexes as well as the structure of power between the sexes (Eagly et al., 2000). In order to illustrate how the division of labour and the structure of power between the sexes affect the roles that males and females occupy within a society, Eagly et al. turn to the field of anthropology. From their review of cross-cultural anthropological research, the authors learned that all known societies across the world have some sort of an established sex-based division of labour. Across cultures, many activities were highly gender-typed; in other words, they were performed solely by one sex. Referring to the structure of power between the sexes, Eagly et al. report that, in egalitarian cultures, no power differences were evident. However, in cultures in which power differences existed, men generally had more power than women. These findings show that, cross-culturally, the division of labour does exist and that, where power differences do occur, men typically benefit from these differences.

Despite the evidence of the existence of the division of labour between the sexes and the existence of power differences between the sexes, these findings do not provide evidence that these socio-structural factors influence the roles that males and females occupy. It is in social role theory's attempt to explain the division of labour and gender hierarchy that it attains an improved ability to explain the different roles that males and females occupy and in turn, sex-based differences in behaviour.

In reference to Wood and Eagly's (2002) review of the cross-cultural research on sex differences in behaviour, Eagly et al. (2004) explain how the division of labour and male-

advantaged gender hierarchy result from the physical differences between the sexes. The authors refer particularly to women's reproductive responsibilities, men's physical size and strength, and these two factors' interaction with the demands of the local socioeconomic system and ecology, as the most central explanation for sex differences in behaviour.

With respect to the physical differences between the sexes, women's reproductive responsibility of pregnancy, and thereafter, having to care for highly dependent infants, limits their ability to perform tasks which require strength, speed or taks which require them to travel away from their homes for extended periods of time. Without these responsibilities, men can perform these tasks whereas women favour tasks which allow them to effectively perform the tasks of bearing and rearing children (Wood & Eagly, 2002; Eagly et al., 2004). Another physical difference which influences the division of labour is men's greater physical size and strength. In societies where productive tasks are highly physically demanding, men are more likely than women to successfully undertake these tasks. Thus, the division of labour results from the specialisation of men and women in to the activities for which they were physically better equipped to undertake within their local ecologies (Eagly, 2009; Eagly et al., 2004). This division of labour, in turn, brings about the expectations related to women's communality and men's agency.

An important disclaimer relating to the effects that the physical differences between the sexes have on the division of labour is that, within societies with low birth-rates, shorter feeding periods for infants and more sharing of the responsibility of rearing children, the consequences of reproduction are less pronounced (Eagly et al., 2000). Additionally, in societies where occupational tasks are not as physically demanding, which is becoming increasingly more common in post-industrial societies, the consequences of differences in physical size and strength are less pronounced (Wood & Eagly, 2009; Eagly et al., 2000). Although the two above-mentioned factors exemplify the influence of the physical sex differences on the division of labour, the two disclaimers also illustrate that socio-structural factors – such as economic system and technology – together with environmental factors, also shape the roles that men and women fulfil within a society.

Based on the importance of the division of labour and gender hierarchy within social role theory, it would make sense for gender roles to change if these structures were to change

(Eagly et al., 2000). Particularly within the more post-industrial societies, there have been rapid changes within the division of labour. Women have had greater educational opportunities, have been more prominent within the paid workforce, and have increasingly been able to occupy higher-paid and more prestigious jobs. Social role theory maintains that these changes should lead to the gradual decline in the acceptance of stereotypic gender roles and a redefinition of the behaviours which are seen as appropriate or expected of men and women (Eagly et al., 2000).

Despite these changes, Eagly et al. (2000) admit that many studies of gender stereotyping have shown mixed conclusions with regard to the extent that men and women use communal and agentic characteristics to describe themselves and others. Undeterred by these findings, Eagly et al. (2000) persist with their beliefs when they maintain that, as the traditional structural factor of the division of labour within the labour market and within homes erodes, the sexes should become more similar. In the same vein, the authors imply that the sexes should converge in their personality, cognitive, and physical characteristics (Eagly et al., 2000; Eagly et al., 2004). However, they seem wary of stating that the behavioural differences between the sexes should also converge.

3.11.2 Evolutionary psychology

Whereas social role theory maintains that sex differences in human behaviour can be accounted for by the differential placement of men and women within the social structure, evolutionary psychology maintains that these differences result from the unique adaptive problems that men and women have experienced as they evolved (Buss, 1989a; Eagly et al., 2004; Eagly & Wood, 1999). As a result of the different adaptive problems that men and women faced, they had to develop different strategies in order to ensure their own survival as well as the survival of their offspring (Eagly et al., 2004; Eagly & Wood, 1999; Ruble et al., 2006). Although this explanation seems relatively straightforward, the researcher believes that, in order to fully understand evolutionary psychology's explanation of sex-based differences in behaviour, it is necessary to locate the origin of its own causal explanation.

It is believed that the ultimate starting point of evolutionary psychology's explanation of sex-based differences in behaviour is Darwin's (1876) theory of natural selection. Darwin's (1876, p.3) definition of natural selection states that:

> As many more individuals of each species are born than can possibly survive; and as, consequently, there is a frequently recurring struggle for existence, it follows that any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be *naturally selected*.

After Darwin's original definition, many Darwinists have provided vastly different definitions of natural selection (e.g. Endler, 1986; Futuyma, 2009; Lawton, 1988). Based on more recent definitions of natural selection, the researcher believes that the authors Confer et al. (2010) provide the clearest and truest definition of the process of natural selection. Their definition states that, if human traits are variable and inheritable, then it is likely that the traits which strongly influence survival and reproductive success will be passed on from one generation to the next.

What Confer et al.'s (2010) definition includes, which Darwin's (1876) definition seems to lack, is a focus on the importance of reproductive success and ensuring the survival of one's offspring. It seems as though Darwin acknowledged the importance of the survival of one's offspring; however, he did not include this within his definition of natural selection. Rather, he thought of this as a different form of selection, which he termed 'sexual selection'.

Darwin identified two facets of sexual selection namely intrasexual competition and intersexual selection (Buss, 1995; Trivers, 1972). In intrasexual competition, the members of one sex compete with each other for more numerous or more desirable mates. Those who are able to show more of the characteristics which are associated with reproductive success – for example greater physical size and strength in males – are likely to have a greater advantage in attaining mates. In intersexual selection, the members of one sex develop an idea of the characteristics which they see as desirable in a potential mate. High levels of consensus within a group (females) regarding the characteristics which are seen as desirable in a mate, lead to the members of the other group (males) feeling greater levels of pressure to develop the characteristics which are likely to lead to reproductive success. These characteristics are likely to persist, evolve, and become a part of the sex's behavioural and psychological

mechanisms, due to the reproductive advantages associated with these characteristics (Buss, 1995; Buss & Schmitt, 1993).

Evolutionary psychology's explanation of sex-based differences in behaviour is linked to the pressures brought about by the process of sexual selection (Geary, 1998). The theory suggests that sex-based differences in behaviour are due the sex-specific mating strategies that males and females have had to adopt in order to meet the mate preferences of the members of the opposite sex (Buss & Schmitt, 1993; Davies & Shackelford, 2008).

These mate preferences seem to hinge on the asymmetrical reproductive responsibilities of the sexes (Wood & Eagly, 2009; Wood & Eagly, 2002; Wood & Eagly, 1999). Because females have had to invest a far greater length of time and energy in raising their offspring (child bearing and rearing) and as a result of their relatively greater parental investment, females have had to carefully choose a partner (male) that will be most likely provide them with the resources that they need to ensure their own survival and to maximise their parental efforts (Buss, 1995; Wood & Eagly, 2002).

On the other hand, compared to females, males have had less restrictive reproductive responsibilities and invested much less time in raising their offspring. The problem for males was that, because of females' 'pickiness', they have had to compete with other males for sexual access to women. This somewhat limited access to and greater competition for females meant that males experienced a great sense of pressure to meet the sexual selection criteria that females were looking for in a potential partner (Wood & Eagly, 2002). As a result, men evolved to develop aggressive, competitive and high risk-taking dispositions in order to show potential mates that they have what they are looking for (Wood & Eagly, 2002).

In a deeper analysis of mate preferences, Buss (1989b) examined mate preferences across 37 different cultural groups. He found that across cultures, women placed a high level of importance on indicators of social status – for example power, good financial status, and profession – as desirable characteristics in a potential partner. In terms of the characteristics that males looked for in females, males were likely to look for 'physically attractive' potential partners. Various authors believe that males use females' physical attractiveness as a sign of their fertility or reproductive ability (Buss, 2007; Davies & Shackelford, 2008;

Mather, 2006). These same authors also believe that younger women are more likely to display the characteristics which are associated with physical attractiveness – hence men tend to prefer younger mates.

Thus, in order to ensure their own survival and their reproductive success, both males and females had to successfully adapt to the problems that they faced within their local environment (Wood & Eagly, 1999). These problems were specifically related to the challenges brought up by intersexual selection and intrasexual competition. Those solutions or strategies that were effective in helping males and females to adapt to these demands were passed on from one generation to the next. The fact that males and females faced different adaptive problems meant that they had to develop different strategies in order to survive. With time, these different strategies led to males and females developing different evolved behavioural and psychological dispositions (Wood & Eagly, 1999).

3.11.3 Comparing social role theory and evolutionary psychology

In this section, ideas relating to how effectively social role theory and evolutionary psychology explain the origin of the psychological and behavioural differences between males and females are discussed. In an attempt to drastically reduce the length of the cat-and-mouse game that the two theories play, the two theories will be discussed from a socio-historical or chronological perspective.

Evolutionary psychology maintains that the origins of sex differences in human behaviour lie in the evolved dispositions of the sexes, whereas social role theory maintains that the differences can be accounted for by the differential placement of men and women within the social structure (Eagly & Wood, 1999). At first glance, it seems as though the two theories are set up in the classic nature versus nurture debate. However, Eagly and Wood (1999, p. 409) suggest that a further reading of the literature suggests that this 'origin of sex differences' debate "cannot be reduced to a simple nature-versus-nature dichotomy". This is because both theories acknowledge the importance of biological and environmental factors in their accounts of the origin of sex-based differences in behaviour. Despite this similarity, Eagly and Wood believe that the theories are radically different in their interpretation of when and how these adaptations led to the most noticeable sex differences in behaviour.

With regard to when these adaptations lead to sex-based differences in behaviour, social role theory locates the origin of these differences at a rather contemporary level whereas evolutionary psychology, according to Eagly and Wood (1999), locates the origin of these differences in the Pleistocene era – which was more than ten thousand years ago. In its critique of evolutionary psychology, social role theory proposes that the challenges of sexual selection that our ancestors faced in the past are not necessarily the same as the challenges that humans have faced in more contemporary times (Eagly & Wood, 1999). In response, evolutionary psychologists find fault with social role theory's attempt to classify sex-based differences as the result of fairly recent environmental factors. Confer et al. (2010) believe that the duration of the changes that we have faced in modern society, from an evolutionary perspective, is far too short to bring about evolved inherent psychological adaptations to the demands of modern society. For complex psychological adaptations to evolve, the sexual selection pressures that humans face must reliably take place over multiple generations (Confer et al., 2010).

Despite the researcher's sense that social role theory is adamant that the two theories cannot be viewed from a socio-historical perspective, no evidence could be found to support this claim. Although the theories make use of rather different terminology, the ultimate origin of both theories' explanation of sex-based differences in behaviour is the biological differences between males and females.

At its deepest level of explanation, social role theory states that the underlying cause of the division of labour is the physical differences between the sexes – differences in reproductive responsibility and differences in physical size and strength. It seems as though evolutionary psychology is quite different from social role theory when it maintains that sex-based differences in behaviour result from males and females having to adapt to the different challenges brought about by sexual selection. However, the facet of sexual selection, intersexual selection, has also been explained by the same differences in reproductive responsibility or parental investment (Trivers, 1972).

The suggestion is that, although both theories seem to tap into the same biological differences to explain sex-based differences in behaviour, they diverge as their levels of explanation progress. It seems as though as social role theory progresses through its levels of explanation,

social expectations and social-structural factors become more prevalent in its explanation of contemporary sex-based differences in behaviour. In contrast, it seems as though evolutionary psychology stays at the level of sexual selection pressures and uses this to explain contemporary sex-based differences in behaviour.

The researcher believes that both theories have their strengths and weaknesses. Evolutionary psychology's causal explanation seems more coherent than social role theory's but, according to Eagly and Wood (1999), it lacks appropriate scientific evidence to support its hypotheses. The section on social role theory shows that it can provide the evidence to support its hypotheses of differential role allocation and gender roles. However, its shift from a focus on social expectations to that of physical differences to explain the division of labour seems to make its causal explanation less coherent. All things considered, cultural explanations of sex-based differences in behaviour cannot be removed from evolutionary explanations of sex-based differences in behaviour (Confer et al., 2010).

3.11.4 Linking the theories to sex-based differences in value priorities

In the discussion of both social role theory and evolutionary psychology, the researcher generally referred to sex-based differences in behaviour and attempted to avoid switching between the ideas on sex-based differences in behaviour and psychological differences between the sexes. A concerted attempt was made to avoid this switching in order to prevent confusion. However, both theories' explanations of the origins of sex-based differences in behaviour to a large extent also refer to the psychological differences between males and females.

As has already been discussed in the evolutionary psychology section, the different adaptive problems that the sexes faced led to the development of different solutions to deal with these problems and, in turn, led to the development of different evolved behavioural and psychological dispositions. The work of Kenrick, Maner, Butner, Li, Becker, and Schaller (2002) suggests that the idea that males and females developed different psychological dispositions also suggests that they developed different fundamental psychological goals which guided their cognitions and behaviours. These fundamental goals are largely aligned

with the goals that humans use as guiding principles within their lives, which are also known as values (Schwartz & Rubel-Lifschitz, 2009).

Essentially, evolutionary psychology's explanation of sex-based differences in value priorities would focus on the different problems that males and females faced in the course of sexual selection. As a result of their greater reproductive responsibilities, females have had to put more effort into selecting a mate who would be willing to provide them with the resources they need to ensure their own survival as well as the survival of their offspring. As a result of females' mate preferences and their own desire for a reproductively valuable mate, males have been confronted with a greater sense of pressure to attain and possess resources. Hence, sexual selection pressures led to males striving to attain and possess resources, which translate into the value of power (Schwartz & Rubel-Lifschitz, 2009). Since social status provides an indication of one's potential ability to attain resources, being socially recognised for one's achievements also became more important to males, thus explaining why achievement may be inherently more important for males. Schwartz and Rubel (2005) also believe that high levels of male competitiveness account for males' greater willingness to take the initiative, to make changes, and to seek out novel experiences – which relates to the value of stimulation.

In contrast, due to the amount of time and effort that females devote to raising their offspring, maximising the benefits of their parental investment is very important to them. Schwartz and Rubel (2005) believe that females' desire to maximise their parental efforts implies that they would develop a greater concern for ensuring the welfare of their offspring, which is directly aligned with the value of benevolence. These authors also suggest that this value could extend to females having a greater concern for raising their offspring in a harmonious, safe, and stable environment, which translates into the value of security. Finally, Schwartz and Rubel also propose that females place a greater level of importance on universalism values because their concern for the wellbeing of their offspring can quite easily extend to a concern for the wellbeing of people in general.

Based on its explanation of the origin of sex-based differences in behaviour, social role theory would propose that sex-based differences in value priorities stem from the different roles that males and females occupy within society. The occupational, family, and gender

roles that males and females occupy directly shape the sexes' behaviours, identities, attitudes, and basic values (Eagly et al., 2004). Thus, the sex-typed roles and expectations that people experience also help explain sex-based differences in value priorities (Schwartz & Rubel, 2005).

Social role theory maintains that men attribute greater importance to the values of power and achievement because men are strongly represented in occupations and roles that enjoy greater power and status within society. Men occupy roles which provide them with more opportunities to exercise power. Diekman and Eagly's (2000) work also suggests that cross-culturally, men are expected to display more agentic traits. These traits encourage men to be assertive, ambitious, dominant, innovative, independent, and self-reliant. As a result, these traits encourage men to find the value types of achievement, power, self-direction, and stimulation as more important.

In contrast, women's reproductive responsibilities place them in roles in which they have to attend to the needs of others. Their greater and more direct experience with these nurturing activities promotes their value of benevolence (Schwartz & Rubel, 2005). Moreover, Schwartz and Rubel propose that the gender role expectations that promote women's concern for the needs of close others may also lead to this need being extended to a concern for the wellbeing of people outside of their in-group. However, they also believe that Eagly et al.'s (2004) work suggests that women's occupation of roles which are of a lower status than the roles that men occupy, could lead to women identifying with the needs of other disadvantaged groups. In addition, as gender role expectations for women encourage them to be relational, passive, and dependent, women may find the value of security to be important.

In sum, the two theories set the sexes up to fit the agentic/instrumental versus communal/expressive distinction suggested by Bakan (1966). This suggests that males and females have different motives and orientations which are likely to be expressed as differences in their value priorities (Prince-Gibson & Schwartz, 1998). Using Schwartz's (1992) structure of basic human values, these differences can be mapped as sex-based differences in the higher-order value types of self-transcendence versus self-enhancement. By understanding the proposed compatibilities and conflicts within the structure of basic human values, it becomes much easier to understand why men find power, achievement, and

stimulation values as inherently more important, and why women find benevolence, universalism, and security values as inherently more important.

3.11.5 Linking the theories to sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values

From the perspective of social role theory, sex-based differences in adolescents' accuracy and acceptance of parental socialisation values would be explained by the belief that, from a young age, children are placed into different social roles. The theory would suggest that, as a result of this differential role allocation, children are exposed to different experiences and social expectations (Eagly et al., 2000). In order to successfully adapt to the gender roles that they have been placed in, adolescents actively turn to the social environment to find out more about what it means to be a man or a woman (Eagly & Wood, 1999; Leaper & Friedman, 2007).

Based on the idea that gender serves as a lens through which we see the world (Wood & Eagly, 2009), gender is also believed to serve as a filter which influences what males and females pay attention to (Leaper & Friedman, 2007). The researcher believes that male and female adolescents pay less attention to the messages which they deem to be less relevant to the members of their sex and thus would be less accurate in perceiving the messages which they view as less relevant to the members of their sex. Similarly, the researcher believes that males and females are more likely to accept the values that they see as more relevant or inherently more important to the members of their sex.

In considering why female adolescents have higher overall levels of accuracy in perceiving and acceptance of what they perceive as the values that their parents find important for their lives (parental socialisation values), social role theory would probably state that females occupy roles which require them to be more attuned to the needs of others. In order to adjust to the expectations associated with these roles, females become more attentive to other people's messages and more willing to comply with their messages.

The contention is that, for an understanding of evolutionary psychology's perspective on sex-based differences in adolescents' accuracy in perceiving and acceptance of parental

socialisation values, one has to understand the adaptive problems that are faced within the developmental period of childhood. Geary and Flinn's (2001) work suggests that, during childhood, the main adaptive problem that children face is the need to develop the socio-competitive competencies that are necessary within their local ecology. Based on his understanding of evolutionary psychology, the researcher suggests that this statement could be extended to children having to develop the socio-competitive competencies that are needed to deal with the future selection pressures that they are likely to face within their local ecology. Thus, it seems as though childhood and adolescence are the times in which children and adolescents have to perfect the competencies which will assist them in successfully adapting to the future pressures of sexual selection (Geary, 1998). It would also seem that parents raise their children with the intention of preparing them for the future pressures of sexual selection (Geary & Flinn, 2001).

A further contention is that, because the pressures of sexual selection differ for males and for females, parents might focus on developing different competencies for male and female adolescents. This could result in adolescents' focusing on the messages or competencies which are associated with their sexual category – resulting in higher accuracy – and neglecting messages or competencies which are less associated with their sexual category – resulting in lower accuracy. Additionally, if adolescents have the goal of future reproductive success in mind, adolescents' accuracy in perceiving their parents' socialisation values could be the result of their focusing their attention on developing the competencies which would result in their future reproductive success. Finally, with this same goal in mind, adolescents' acceptance of what they perceive as their parents' socialisation values could be linked to the perceived level of future reproductive success associated with the value.

Thus, as a result of male adolescents' awareness of the future pressures of sexual selection and their parents' efforts to assist them in developing the competencies which would result in their future reproductive success, male adolescents may be more aware of how the possession of resources, having a high social status, being competitive and willing to take chances may improve their future reproductive success. This translates into male adolescents' having greater accuracy in perceiving the level of importance that their mothers and fathers place on the values of power, achievement, and stimulation as socialisation values. In contrast, as a result of female adolescents' awareness of the future pressures of sexual selection and their

parents' efforts to assist them in developing the competencies which would result in their future reproductive success, female adolescents may be more aware that their future reproductive success relies on their ability to successfully ensure the survival and wellbeing of their offspring. This could translate into female adolescents' having greater accuracy in perceiving the importance that their parents place on the values of benevolence and security as socialisation values. Building on Schwartz and Rubel's (2005) proposition, one could also conclude that female adolescents are more accurate in perceiving the importance that their parents place on the value of universalism as the concern for the wellbeing of their offspring could quite easily extend to a concern for the wellbeing of people in general.

In considering why female adolescents have higher overall levels of accuracy in perceiving and acceptance of what they perceive as their parents' socialisation values, evolutionary psychology would maintain that the psychological dispositions that females have developed, have made them more attuned to the needs of others. Being more attuned to the needs of others could translate into females being more aware of what other people say, thus explaining why female adolescents have a higher level of overall accuracy in perceiving the importance that their parents place on different socialisation values. With regard to the differences in acceptance, evolutionary psychology would maintain that, because it is more adaptive for males to be competitive, independent, and assertive, they are more likely to make their own decisions and less likely to accept other people's messages. This could explain why females have a higher overall level of acceptance of their parents' socialisation values.

3.11.6. Linking the socialisation of gender to sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values

In chapter 2, the socialisation literature which contextualised Grusec and Goodnow's (1994) model of discipline effectiveness was discussed. However, together with this model, the socialisation literature discussed the socialisation process in a sex-generalised manner which made it difficult to find evidence to support the belief that adolescent sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values.

This section discusses how the socialisation of gender literature supports the belief that adolescent sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values. Although this discussion may seem misplaced, it is believed that this literature could not be presented in chapter 2 because the conceptual disarray surrounding the concept of values made it difficult to explain how the socialisation of gender literature contributes to the development of hypotheses pertaining to the specific value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. Presenting this socialisation of gender literature after clarifying what the concept of values means, makes it much easier to discuss how this literature can be linked to the development of hypotheses pertaining to the specific value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur.

Although there are various agents that are involved in the socialisation process, the bulk of the socialisation of gender literature focuses on the belief that parents raise boys and girls differently and that this differential treatment leads to sex-based differences in children's behaviour. One of the classic works within the field of the socialisation of gender is Maccoby and Jacklin's (1974) meta-analytical review of studies which focused on parents' sex-differentiated socialisation practices. Maccoby and Jacklin concluded that parents do reinforce their children's sex-differentiated behaviour but only within the more narrowly defined area of children's sex-typed activities and toy choices. In all other areas of socialisation, it seemed as though parents' socialisation practices for boys and girls were remarkably similar. However, in a number of articles, Block (1976, 1978, 1983) levelled several criticisms at Maccoby and Jacklin's (1974) conclusions, some of which included the fact that fathers were underrepresented in the reviewed studies, that the majority of the studies were based on children under the age of 6, and that there were conceptual and methodological flaws in their meta-analytical review.

In another highly influential meta-analytical review of 172 studies which assessed whether parents reared boys and girls differently, Lytton and Romney (1991) found that, across 19 socialisation areas, the only area that showed some evidence of parents' differential treatment of boys and girls was parents' encouragement of sex-typed activities – which included play. Thus, based on the results of Maccoby and Jacklin's (1974) and Lytton and Romney's (1991)

meta-analytical reviews, it would seem that the only area where parents' socialisation practices differ for boys and girls would be that of children's activities and toy choices. Although some may believe that parents' encouragement of sex-typed activities (including play and toy choices) is less significant than parents' encouragement of their children's actual sex-typed behaviour, Leaper and Friedman's (2007) work suggests that this would be a highly misguided conclusion.

Leaper and Friedman (2007) argue that, because play offers children the opportunity to practice particular behaviours, with repeated practice, it is not unreasonable to expect that parents' encouragement of sex-typed play could lead to other important sex-based differences. For example, the sex-typed activities that children are involved in could lead to boys and girls developing different cognitive and social skills (Caldera, McDonald-Culp, O'Brien, Truglio, Alvarez, & Huston, 1999; Martin & Dinella, 2002). Aligning this argument with this study, the researcher believes that the sex-typed activities that children are engaged in lead to their being exposed to different values. For example, since "girls play more frequently with dolls, tea and kitchen sets, dress-up, and engage in fantasy play involving household roles, glamour, and romance" (Ruble et al., 2006, p. 869), they are more exposed to the value of benevolence. In contrast, since "boys play with transportation and construction toys, and engage in fantasy play involving action heroes, aggression, and themes of danger" (Ruble et al., 2006, p. 869), they are more exposed to the values of power (captured in play which involves aggression and dominance), achievement (captured in superhero play), and stimulation (captured in themes of danger play). Furthermore, it is believed that, because parents and other socialising agents encourage these forms of play, children develop greater accuracy in perceiving the levels of importance that their parents place on the values associated with the sex-typed activities that they engage in. It is also possible that, because of this same encouragement, children accept the values associated with the sex-typed activities that they are engaged in.

In addition to the finding of parents' encouragement of their children's sex-typed activities, a meta-analysis of studies which focused on parents' observed language with their children, found that mothers' communication with their daughters and their sons differed (Leaper, Anderson, & Sanders, 1998). Mothers tended to talk more and use more supportive speech with their daughters than with their sons. Furthermore, mothers' communication with their

daughters tended to emphasise interpersonal closeness whereas their communication with their sons tended to encourage their sons' autonomy (Leaper & Friedman, 2007). These findings are supported by Huston's (1983) review which suggests that girls are encouraged to display dependent, submissive, and affectionate behaviours – aligned with Bakan's (1966) communal behaviours – whereas boys are afforded more freedom from parental supervision and opportunities to express their independence – aligned with Bakan's agency behaviours.

Continuing with the attempt to illustrate that boys and girls are socialised differently, the belief that boys hold more rigid gender stereotypes than girls (Bussey & Bandura, 1999; Gold, Andres, & Glorieux, 1979), could indicate how boys and girls are exposed to different gender socialisation pressures. Huston's (1983, p. 438) work suggests that boys' rigid gender stereotypes could, in part, be attributed to the belief that fathers place more pressure on their sons to display sex-typed behaviour, since "fathers feel a special responsibility for masculinizing their sons".

Although the researcher has tried to present a straightforward discussion of the socialisation of gender, it is acknowledged that the processes involved in the socialisation of gender are more complex, subtle, and context-dependent than his discussion suggests. Also, although it is clear that the world is sex-typed, it is less clear how this influences the socialisation of gender (Ruble et al., 2006). Despite these complexities, the points discussed in this section are believed to have provided some evidence that parents may socialise boys and girls differently. The discussion has shown how this differential treatment could lead to other important sex-based differences, such as differences in cognitive and social skills. The discussion also illustrated that this sex-differentiated treatment could lead to boys' and girls' being exposed to different values thus resulting in sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values.

Aligning this discussion of the socialisation of gender with the theories of social role theory and evolutionary psychology, the researcher would like to briefly mention two points. Firstly, the idea that parents encourage boys and girls to participate in sex-typed activities is closely aligned with social role theory's emphasis on sex-differentiated role allocation. Parents' encouragement of boys and girls engagement in sex-typed play and other activities could be viewed as their attempt to prepare their children for the sex-typed adult roles that they will be

placed in as adults. Secondly, the view that play offers children the opportunity to practise and refine behaviours ties in with evolutionary psychology's idea that childhood is the time in which children have to perfect the competencies which will assist them in successfully adapting to the future pressures of sexual selection (Geary, 1998). Thus, it could be that parents' encouragement of sex-typed activities is linked to their need to prepare their children for the pressures of sexual selection that they will face in adulthood.

3.12 Conclusion

This chapter commenced with the attempt to clarify the conceptual disarray which frequently surrounds the concept of values. The discussion illustrated how Rokeach's (1973) work set the foundation for the initial theory of basic human values that was set out by Schwartz and Bilsky (1987). Although Schwartz and Bilsky did find strong evidence to support their hypotheses with regard to the content of and structural relations between value types, they continued with their endeavour to validate the universality of their theory. As a result of this pursuit, Schwartz's (1992) modified hypotheses illustrated that people from various cultures clearly distinguished 10 value types and that the structural relations between these value types were highly consistent. With this confidence in his theory, Schwartz set out to confirm the universality of the theory of basic human values.

The chapter continued with a discussion of how Schwartz et al.'s (2001) findings seemed to jeopardise the universality of Schwartz's (1992) theory. However, after realising that the inconsistent findings resulted from problems with the measurement tool, the results based on the new tool – the Portrait Values Questionnaire – led to Schwartz et al.'s (2001) confirming that Schwartz's (1992) theory of basic human values was universally applicable. With this new confidence in his theory, Schwartz turned his attention to learning more about the way in which people from different cultures arrange the importance of different values within their lives – that is their value priorities. This new focus on value priorities led to Schwartz and Rubel's (2005) and Schwartz and Rubel-Lifchitz's (2009) findings of sex-based differences in value priorities.

After discussing these sex-based differences in value priorities, the chapter turned to outlining the explanations offered by social role theory and evolutionary psychology of the

potential origin of sex-based differences in value priorities. It was maintained that these same theories could be used as a guide to hypothesising on which value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. Furthermore, the chapter also outlined how the socialisation of gender literature could also be used as a guide to hypothesising on which value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. Taken together, the arguments presented by the findings of sex-based differences in value priorities, the two theories, and the socialisation of gender literature all offered support for the research hypotheses that were set out in this study.

In the next chapter, these hypotheses will be outlined. The chapter also presents the overall plan that was followed to assess these research hypotheses.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The purpose of this chapter is to describe the steps that were followed in an attempt to answer the research questions which were initially outlined in chapter 1. The chapter commences with a reiteration of the research objectives and questions of this study. Thereafter, a description of the overall plan or research design that was used to answer the research questions will be provided. This leads to a discussion of the sampling method and the characteristics of the sample that was obtained in an attempt to assess the research hypotheses of this study. Thereafter, the reliability and the validity of the research instrument that was used in this study will be presented. The final section of the chapter focuses on the various considerations that were made in the analysis of the different research hypotheses.

4.2. Objectives of the study

The first objective of this study is to determine whether there are sex-based differences in adolescents' overall levels of accuracy in perceiving and acceptance of the values that they believe their parents find as important for their lives – parental socialisation values. Although Knafo and Schwartz (2003) and Barni et al. (2011) did find these sex-based differences, their findings have not been replicated. Furthermore, Grusec and Goodnow's (1994) model seems to overlook the possibility that children's sex influences the socialisation process and the extent to which they internalise their parents' value-laden messages – socialisation values. It is believed that a confirmation of the research hypotheses that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values will lead to a reconsideration of the role that sex plays in the extent to which adolescents internalise different parental socialisation values.

The second objective of this study relates to the above-mentioned objective. Although Knafo and Schwartz (2003) and Barni et al. (2011) found sex-based differences in adolescents' overall accuracy in perceiving and acceptance of parental socialisation values, they did not

look into the possibility of finding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. As will be discussed in sections 4.9.5 and 4.9.6, the measures of overall accuracy and acceptance are created by correlating dyad members' scores across the ten value constructs – within-dyad correlations. The problem with these measures is that they do not indicate on which specific value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur.

Based on the findings of sex-based differences in value priorities, the socialisation of gender literature, and the arguments presented by social role theory and evolutionary psychology, the researcher believes that it could be more beneficial to evaluate on which specific value constructs potential sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. Thus, the second objective of this study is to determine whether there are sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. In an attempt to develop more well-defined research hypotheses, the researcher makes use of the findings of sex-based differences in value priorities, the socialisation of gender literature, and the arguments presented by social role theory and evolutionary psychology to set hypotheses regarding which specific value constructs sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur on.

4.3 Research questions and hypotheses

Based on the above integrated discussion of the first research problem and research objective, the first question that is asked is: "When compared to male adolescents, do female adolescents have higher levels of overall accuracy in perceiving their mothers' and their fathers' parental socialisation values?" Based on this question, the following research hypothesis was set:

H_1= The mean score which represents female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values will be significantly higher than the mean score which represents male adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values.

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values.

Still tied to the first research objective, the second research question is: "When compared to male adolescents, do female adolescents have higher levels of overall acceptance of what they perceive as their mothers' and their fathers' parental socialisation values?" Based on this question, the following research hypothesis was set:

H_2= The mean score which represents female adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values will be significantly higher than the mean score which represents male adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values.

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values.

As stated in the integrated discussion of the second research problem and research objective , Knafo and Schwartz (2003) and Barni et al. (2011) did not look into the possibility of finding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. Based on this problem, the following question is asked: "Does 'adolescent sex' influence adolescents' accuracy in perceiving and acceptance of specific parental socialisation values?"

Using Schwartz and Ruble (2005) and Schwartz and Rubel-Lifschitz's (2009) findings of sex-based differences in value priorities to form his own hypotheses with regard to sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, the researcher hypothesises that:

H_3= The mean scores which represent female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security will be significantly lower than the mean scores which represent

male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security.

H_0=There will be no significant differences between the mean scores which represent male and female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security.

H_4= The mean scores which represent male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation will be significantly lower than the mean scores which represent female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation.

H_5= The mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of benevolence, universalism, and security will be significantly lower than the mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers attribute to the value types of benevolence, universalism, and security.

H_0= There will be no significant differences between the mean scores which represent male and female adolescents' acceptance of the importance that their mothers and fathers place on the value types of benevolence, universalism, and security.

H_6= The mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation will be significantly lower than the mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers attribute to the value types of power, achievement, and stimulation

H_0= There will be no significant differences between the mean scores which represent male and female adolescents'' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation.

It must be stated that, with regard to hypotheses 3 to 6, a significantly lower mean score actually represents a significantly higher level of adolescents' accuracy in perceiving or acceptance of what they perceive as the level of importance that either their mothers or fathers place on a specific socialisation value. This complexity is discussed in section 4.9.7, which covers the creation of the measures of adolescents' accuracy in perceiving and acceptance of what they perceive as the level of importance that their mothers and fathers attribute to a specific socialisation value.

4.4 Research design

The proposed research will make use of a quantitative, inferential, non-experimental, comparative, cross-sectional research design. A quantitative design is best suited to this study because of the nature of the questions that are being asked. The design is quantitative because it is believed that the research questions can be assessed by making use of numbers. In other words, it is believed that the phenomena under study – adolescents' accuracy in perceiving and acceptance of parental socialisation values – can be quantified. Furthermore, the design is inferential because the researcher is attempting to develop conclusions regarding adolescents' accuracy in perceiving and acceptance of parental socialisation values which can be extended beyond the immediate sample or data alone.

The research has a non-experimental research design because it does not involve the manipulation of a situation, variables, or the experience of the participants. The research will be able to determine whether a relationship exists between the variables under study – sex and accuracy or acceptance – but it will not be able to determine the proper time order of the relationship and it will be limited in its ability to control the confounding effect of extraneous variables. The research design is comparative because it compares male and female adolescents' accuracy in perceiving and acceptance of parental socialisation values. Finally, the research design is cross-sectional because information is collected from participants at only one specific point in time.

With regard to the overall plan to answer the research questions, since this research is based on previous research by Knafo and Schwartz (2003) and Barni et al. (2011), the research will make use of the same measure that was used in both of these studies namely, the Portrait Values Questionnaire - Version IV (PVQ - IV). Thereafter, the researcher intends to attain a sample that is also similar to the previous research. This sample will be made up of an equal number of male and female adolescents along with both of their parents – individually. Although participants will complete the same questionnaire, the instructions for parents and adolescents will differ in section B of the questionnaire. These differences in instructions are necessary to create the measures of accuracy and acceptance – which are discussed in sections 4.9.5 to 4.9.7. The questionnaire is designed to be self-administered and thus will be sent out to the families who provide their consent to participate in the study. Thereafter, the researcher will make use of inferential statistical techniques such as mixed-design ANOVA and correlations to investigate the apparent sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values.

4.5 Data collection

In the proposal for this study, the researcher decided to include government schools from the east-rand of Johannesburg, South Africa within the study. This decision was based on the belief that because the researcher had previous work-related experience in a few of these schools, it would have been easier for him to attain the permission that he needed to advertise the study to the students or families associated with these schools. He received permission to distribute letters which informed students and their parents about the study, from two of these schools.

A month after sending out approximately 1200 letters to recruit participants from the first school, a dismal response rate of 0.3% was received. In an attempt to locate the possible cause of this dismal response rate, the researcher arrived at the conclusion that the data-collection procedure was at fault. In order to ensure the confidentiality of participants' answers and to prevent the sharing or copying of information between family members participating in the study, a data-collection procedure which required adolescents to complete the questionnaire for approximately forty five minutes after school, was designed. The

researcher however realised that asking students to complete a study after school was understandably a bridge too far for many students.

Despite the criticisms of the data-collection procedure, the researcher also had doubts about the schools that he had selected, since senior staff members from both schools informed him that the low response rate was a "norm" within their schools. The difficulties that were experienced, led him to decide that, if the study was to be successfully completed, changes had to be made to both the data-collection procedure and the schools that would be included in the study.

Therefore, the researcher decided that, instead of approaching government schools in the East Rand of Johannesburg, South Africa, which were initially thought to be more representative of the South African population, private Christian schools on the East Rand of Johannesburg, South Africa should be approached. It was believed that, since the focus of this study was strongly aligned with the vision that many private Christian schools have for their students, these schools were more likely to have some level of enthusiasm for the objectives of this study. Additionally, the students from these schools still met the original selection criteria.

After approaching approximately eight private Christian schools on the East Rand, the researcher reached the selection of schools represented in this study namely, St Dunstan's College, Christian Brothers College (CBC Boksburg), and Maranatha Christian School. The researcher was also fortunate in the sense that these schools were very enthusiastic about assisting with the study. The principal of St Dunstan's College, offered to have the relevant questionnaires and letters (Annexure 1) distributed to the 500 students in the senior college. At CBC Boksburg, and Maranatha, letters explaining the study to all the students within these schools were handed out. If a student and his or her parents were interested in participating in the study, they returned a slip which indicated they were willing to participate. Thereafter, the relevant questionnaires and consent forms were distributed to these families.

A period of three weeks was allocated for families to complete the questionnaire. When the families had completed their questionnaires, they returned them to the staff representative who assisted with safely storing the completed questionnaires.

4.6. Population

Knafo and Schwartz (2003, p. 595) maintain that "evidence from diverse groups in more than 60 countries supports the claim that people discriminate among 10 motivationally distinct values". This evidence comes from large, mostly representative samples from North and South America, Europe, Asia, Africa and Oceania. Knafo and Schwartz (2003, p. 595) define values as "guiding principles in people's lives, as criteria they use to select and justify actions and to evaluate people and events". This evidence would suggest that, since the concept of values is universal, research conducted on values is applicable to individuals from all nations around the world.

Focusing specifically on the individuals or groups to whom the results of this study could be generalised, the sampling method that was used for this study would limit the generalisability of the results. Subsequently, the results of this study can be applied only to a narrowly defined population, such as the schools that participated in this study.

4.7 Sampling

4.7.1 Sampling method

The method of sampling used in the study was non-probability, convenience sampling. Based on the problems described in section 4.5, the researcher was not in a position where he could create a sample that was representative of private Christian schools in the East Rand of Johannesburg, South Africa. Despite some level of convenience in the sampling method, participants still had to meet the following selection criteria:

Adolescents had to be between the ages of 13 and 18. Both of the adolescent's biological parents had to participate in the study and the adolescent had to be in physical contact with his or her biological parents at least once a week. The researcher decided to select adolescents between the ages of 13 and 18 because this age group fits into the definition of the developmental phase of adolescence (Gouws, Kruger, & Burger, 2008). The criterion of both the adolescent's biological parents participating in the study was set in order to create greater control of the influence that family structure may have on the socialisation process (Leve &

Fagot, 1997; Patterson & Hastings, 2007). The justification for the third selection criterion of the adolescent having to be in physical contact with his or biological parents on a weekly basis is related to the second criterion of trying to control the influence that family structure may have on the socialisation process.

4.7.2 Sample size

This study has a total of 400 participants. Although this sounds like a relatively large sample, the method of data analysis used in this study means that it is more important to look at the total number of families who participated in this study. In total, 142 families participated in this study. In quantitative terms, this may be seen as a moderate sample size. The researcher understands that it is important to discuss sample size when using a quantitative design, because sample size has an important influence on the interpretation of results.

How does a small sample size affect the results of a study?

Basically, when testing a hypothesis, the researcher relies on the level of significance to determine whether the experimental or alternative hypothesis can be accepted. The level of significance gives an indication of the probability that the results from the study will be found in the target population. When sample size is small, it affects the level of power that a test has to detect the effect that the test is assessing. Basically, small sample size dramatically increases the chance of making type II errors (Hart & Clark, 1999). A type II error occurs when, based on the level of significance from the test statistic, the researcher concludes that "there is no effect in the population when, in reality, there is" (Field, 2009, p. 56). It is furthermore understood that it might be more difficult to find significant results based on the fact that the study's sample size is not large although, according to Stevens (1996), this sample is not exactly small (e.g. n = 20). Furthermore, it is clear that the substantive or practical significance of a finding is probably just as important as the statistical significance of a finding. Therefore, the practical significance or relative importance of the findings will also be reported – that is, effect sizes (Field, 2009; Pallant, 2005).

4.7.3 Characteristics of the sample

4.7.3.1 Characteristics of the overall sample

This section outlines the characteristics of the total or overall sample. Although this includes all the people who participated in the study, it does not reflect the samples for the analysis of adolescents' overall accuracy and acceptance, and specific accuracy and acceptance of parental socialisation values.

Looking at the overall sample, one can see that there were 400 participants in this study (n = 400). Figure 4.1 illustrates the composition of the sample based on race. The vast majority of participants identified themselves as White (n = 330, 82.5%). 10.5% (n = 42) of the participants identified themselves as African. 4.5% (n = 18) of participants were Indian and only 2.5% (n = 10) of the participants were Coloured.

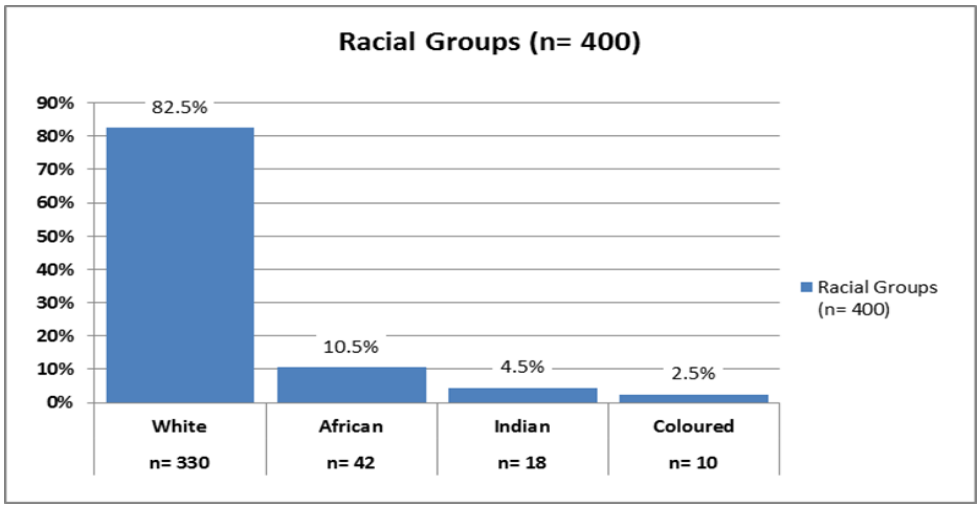

Figure 4.1 Racial composition of the overall sample (n = 400)

Figure 4.2 represents the age categories of the parents who participated in the study. Overall, there were 140 mothers and 118 fathers who participated in this study. The figure illustrates that the fathers in the study were slightly older than the mothers who participated in the study. To sum up, 66% of mothers were under the age of 46. In contrast, only 37% of fathers were younger than 46. Most mothers were between the ages of 41 and 45 (42.8%) and most fathers were between the ages of 46 and 50 (38.7%).

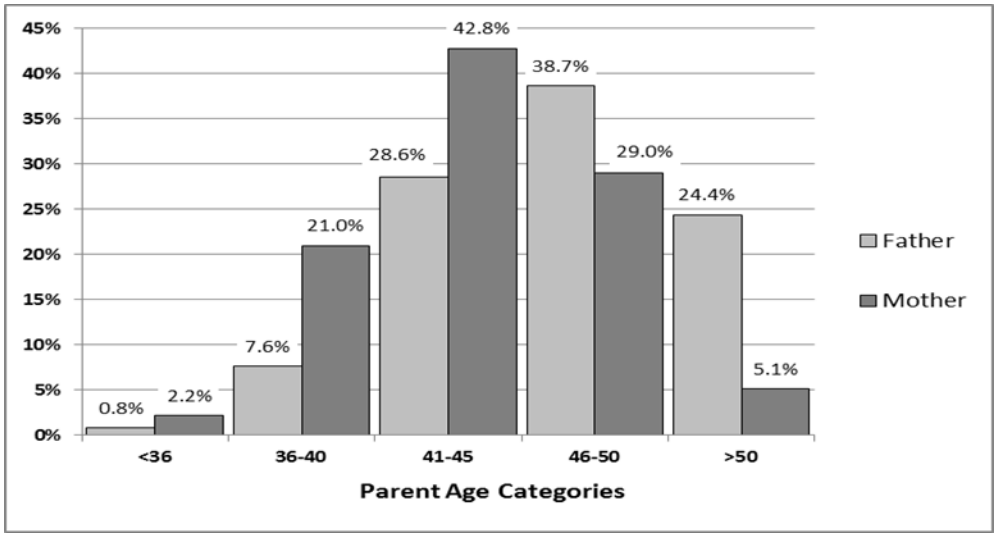

Figure 4.2 Age categories of the parents who participated in the study

Figure 4.3 represents the number of adolescents who participated in this study and then differentiates this number by school and adolescent sex. The figure illustrates that 64.1% (n = 91) of the adolescents who participated in this study were from St Dunstan's College. Of these 91 participants from St Dunstan's, 74.7% of the participants were female and 25.3% were male. 25.4% of the adolescents who participated in this study were from Christian Brothers' College – Boksburg (CBC). Since this is an all-boys school, all 36 participants from CBC were male. Finally, 10.6% (n = 15) of the adolescents who participated in this study were from Maranatha Christian School (MCS). Of the 15 participants from MCS, 53.3% were male and 46.7% were female. Overall, 142 adolescents participated in the study. Of the adolescent participants, 47.2% were male and 52.8% were female.

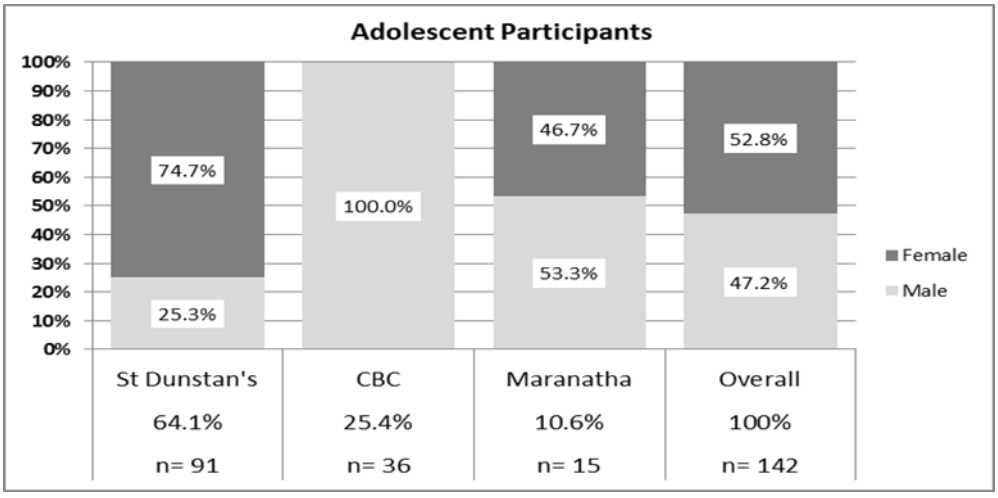

Figure 4.3 Representation of adolescent participants differentiated by school and sex

4.7.3.2 Sample characteristics – overall and specific accuracy in perceiving parental socialisation values

In order to construct the measures of adolescents' overall and specific accuracy in perceiving parental socialisation values, information from 'complete' families – where the father, mother, and adolescent participated – was required. In cases where information was missing from either fathers or mothers, the measures of overall accuracy and specific accuracy could not be constructed. Thus, when conducting analyses of adolescents' overall or specific accuracy in perceiving specific parental socialisation values, the sample used for these analyses would be all the 'complete' family cases. In total, the analyses of sex-based differences in adolescents' overall and specific accuracy in perceiving parental socialisation values were conducted with a sample of 117 'complete' families.

In terms of race and parent age, the samples used for overall and specific accuracy were very similar to that of the overall sample. It was also found that the overall and specific accuracy samples were very similar to that of the overall sample in terms of the percentage of participants from the three different schools. With regard to the overall and specific accuracy samples, the feature that the researcher would like to focus on is the age of the male and female participants.

Table 4.1 illustrates the age of the male and female participants within the overall and specific accuracy samples. Sixty three percent (63.0%) of male adolescent participants were between the ages of 13 and 15 , whereas 47.6% of female adolescents were between the ages of 16 and 18. Thirty-seven percent (37%) of male adolescents were between the ages of 16 and 18, whereas 52.4% of female adolescents were between the ages of 16 and 18. What this table illustrates is that, overall, female adolescents were slightly older than male adolescents (mean age: male $\bar{x}$ = 14.8, female $\bar{x}$ =15.3). Although the differences seem quite large, the result of the chi-square test – continuity correction – suggests that the differences between male and female adolescents' distributions in the different ages categories are not significant, χ^2 (1, N = 117) = 2.18, p= .14.

TABLE 4.1 Cross tabulation between adolescent sex and age category – overall and specific accuracy

Adolescent sex * Age_Categorical Crosstabulation

			Age_Categorical		
			13-15	16-18	Total
Adolescent sex	Male	Count	34	20	54
		% within Adolescent sex	63.0%	37.0%	100.0%
		% within Age_Categorical	53.1%	37.7%	46.2%
	Female	Count	30	33	63
		% within Adolescent sex	47.6%	52.4%	100.0%
		% within Age_Categorical	46.9%	62.3%	53.8%
Total		Count	64	53	117
		% within Adolescent sex	54.7%	45.3%	100.0%
		% within Age_Categorical	100.0%	100.0%	100.0%

4.7.3.3 Sample characteristics – overall and specific acceptance of parental socialisation values

In order to construct the measures of adolescents' overall and specific acceptance of what they perceived as their parents' socialisation values, individual adolescents were required to provide information on their own personal values as well as on what they perceived to be their mothers' and fathers' parental socialisation values. In cases where adolescents did not provide information on both their mothers' and fathers' socialisation values, the measures of adolescents' overall acceptance and specific acceptance of parental socialisation values could not be constructed. The total number of adolescents who provided the relevant information in order to construct the measures was 134. Thus the analyses of sex-based differences in adolescents' overall acceptance and specific acceptance of parental socialisation values were conducted with a sample size of n = 134.

Table 4.2 illustrates the ages of the male and female participants in the overall and specific acceptance samples. Compared to the overall and specific accuracy samples, the distribution of male and female adolescents in the age categories of 13 and 15 years, and 16 and 18 years was slightly more equal. Fifty nine percent (59.4%) of male adolescent participants were between the ages of 13 and 15, whereas 45.7% of female adolescents were between the ages of 13 and 15 . Forty percent (40.6%) of male participants were between the ages of 16 and 18

and 54.3% of male participants were between the ages of 16 and 18. The mean age of male and female participants was quite similar (male $\bar{x}$ = 15.0, female $\bar{x}$ =15.4).

TABLE 4.2 Cross tabulation between adolescent sex and age category – overall and specific acceptance

Adolescent Sex * Age_Categorical Crosstabulation

			Age_Categorical		
			13-15	16-18	Total
Adolescent Sex	Male	Count	38	26	64
		% within Adolescent Sex	59.4%	40.6%	100.0%
		% within Age_Categorical	54.3%	40.6%	47.8%
	Female	Count	32	38	70
		% within Adolescent Sex	45.7%	54.3%	100.0%
		% within Age_Categorical	45.7%	59.4%	52.2%
Total		Count	70	64	134
		% within Adolescent Sex	52.2%	47.8%	100.0%
		% within Age_Categorical	100.0%	100.0%	100.0%

4.8 Research instrument

This section discusses the research instrument that was used in this study namely, the Portraits Value Questionnaire – Version IV (PVQ – IV). The section commences with a description of the research instrument and finishes with a discussion of the reliability and validity of the research instrument.

4.8.1. Description of the research instrument

The PVQ – IV is made up of forty questions which can be organised into ten constructs or value types. As the specific origin of the PVQ – IV was discussed in detail in the values section of this text – specifically sections 3.5 through 3.7, this section will not include a discussion of the development of the research instrument. Instead, Table 4.3 describes the ten value constructs in the questionnaire, the motivational goal expressed by each value type (construct), and the items which reference each value type.

TABLE 4.3 Definition of the ten value types in terms of their goals and the values that represent them (adapted from Schwartz & Bardi, 2001)

Value type	Motivational goal expressed by value type	Items (in brackets) within value type or construct
Power	Achieving or maintaining social status and prestige as well as control or dominance over people and resources	Wealth (2), leadership (39), dominance and control (17)
Achievement	Focuses on the feeling of personal success which is attained by demonstrating competence according to social standards.	Admiration (4), success (13), ambition (24), and competition (32)
Hedonism	Focuses on pleasure and self-gratification.	Pleasure (10), self-indulgence (26), and enjoyment (37)
Stimulation	Finding exciting, new and challenging things in life.	Novelty (6), adventure (15), and an exciting life (30).
Self-direction	Independent thought and action-choosing, creativity, and exploration.	Creativity (1), curiosity (22), as well as autonomous thought and action (11, 34)
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature.	Equality (3), open-mindedness (8), harmony (23), justice (29), and conservation (19, 40)
Benevolence	Focuses on preserving and enhancing the welfare of the people with whom one is in frequent social contact with	Helpfulness and caring (12), loyalty (18), supportiveness (27), and forgiveness (33)
Tradition	Respect, commitment and acceptance of the customs and ideas of traditional culture or religion.	Gratitude (9), religious beliefs (20), tradition (25), and humility (38).
Conformity	Focuses on restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms – i.e. self-restraint.	Obedience (7), well-behaved (16), polite (36), and respectful (28)
Security	Focuses on safety, harmony and stability of society, relationships, and of self.	Personal cleanliness and health (21, 31), living in a safe neighbourhood and country (5, 14), and social order (35)

In the section which follows, the reliability and validity of the PVQ – IV will be discussed. Particular attention is based to the reliability and validity of the PVQ – IV in the South African context.

4.8.2 Reliability and validity of the research instrument

In terms of its reliability and validity for the South African context, the PVQ was developed specifically because of the problems that arose when the Schwartz Value Survey (SVS) was administered to a large sample of black South Africans. In 1997, Schwartz et al. (2001) administered the PVQ to a representative national sample of 3, 493 South Africans, of which 2 000 were black South Africans. Schwartz et al. (2001) compared their findings using the PVQ to the earlier study that made use of the SVS and they found that the Spearman

correlation between the observed and the theoretical order of values around the value circle was .83 ($p < .01$). This indicated that the implicit organisation of the values found in the representative black South African sample corresponded quite well to the structure postulated in the values theory. The results also indicated that the use of a new measure, the PVQ, overcame the problems found with the earlier sample which used the SVS. Schwartz et al. (2001) found that the PVQ had a high level of construct and convergent validity and acceptable levels of discriminant validity. It was found that the measure had a high level of test-retest reliability although the time interval was over a fairly short period of two weeks.

Referring to the construct validity of the PVQ, Schwartz (2011) does not recommend confirmatory factor analysis (CFA) because this method seeks to confirm pure factors where each item of a construct loads only on one factor. CFA contradicts the theoretical view of values as arrayed on a motivational continuum. Some studies which have used CFA to confirm the construct validity of the PVQ have been successful (e.g. Bilsky, Janik, & Schwartz, 2011; Schwartz & Boehnke, 2004; Steinmetz, Schmidt, Booh, Wieczorek, & Schwartz, 2009). However, other studies have not been as successful (e.g. Davidov, 2008). For an adequate capturing of the theoretical relations between the value constructs or the motivational continuum arrangement of the values, Schwartz (2011) suggests that multidimensional scaling methods should be used – such as smallest space analysis (SSA).

Referring to the internal consistency of the different values, Schwartz et al. (2001) stated that there are two reasons not to expect high reliability coefficients for the value constructs. Firstly, there are relatively few items within each value construct and secondly, the items selected in each construct were selected to cover a broad definition of the value construct rather than a narrowly defined construct. Despite these reported limitations, Table 4.3 presents the reliability – internal consistency – of the ten value constructs within the PVQ-IV. The table presents the internal consistency of the constructs, based on the results of the researcher's own study together with the results from a fairly recent South African study by Ungerer and Joubert (2011) and the results presented by Schwartz et al. (2001).

Based on Pallant's (2005) comments on how different samples and populations affect the reliability of a scale, the decision was made to conduct separate analyses of the internal consistency of the value constructs for parents (n = 258) and for adolescents (n = 142). This

was followed by an analysis of all participants (n = 400). By and large, the results indicate that the Cronbach's alpha coefficients were slightly lower for adolescents than for parents but that the differences were not substantial.

Within the current study, the Cronbach's alpha coefficients for the ten value constructs were generally higher than the Cronbach's alpha coefficients that Ungerer and Joubert (2011) and Schwartz et al. (2001) reported. This is partly due to the fact that all 40 items of the PVQ-IV were used instead of the shortened version of the PVQ – which has fewer items for most of the constructs.

It is clear from the combined Cronbach's alpha coefficients that the Cronbach's alpha coefficients for the hedonism and achievement value constructs were relatively high (hedonism $\alpha = 0.75$, achievement $\alpha = 0.76$). The Cronbach's alpha coefficients for conformity, benevolence, universalism, self-direction, stimulation, power and security were moderate – all between 0.62 and 0.69. The combined Cronbach's alpha coefficient for tradition was relatively low (tradition $\alpha = 0.54$) but it was still higher than the alphas reported in the studies done by Ungerer and Joubert's (2011) and Schwartz et al.

TABLE 4.4 The internal consistency of the constructs within the PVQ-IV

		Cronbach's Alpha				Cronbach's Alpha	
Values Construct	**No. of items**	**Parents**	**Adolescents**	**Combined**	**No. of items**	**Ungerer & Joubert (2011)**	**Schwartz et al. (2001)**
Conformity	4	0.70	0.66	0.69	3	0.47	0.48
Tradition	4	0.57	0.48	0.54	3	0.43	0.37
Benevolence	4	0.63	0.62	0.62	3	0.63	0.61
Universalism	6	0.78	0.69	0.69	4	0.57	0.57
Self-Direction	4	0.68	0.67	0.67	4	0.55	0.53
Stimulation	3	0.68	0.61	0.68	2	0.53	0.76
Hedonism	3	0.75	0.64	0.75	3	0.64	0.79
Achievement	4	0.76	0.72	0.76	3	0.61	0.52
Power	3	0.68	0.69	0.68	2	0.50	0.50
Security	5	0.67	0.59	0.66	2	0.64	0.64

4.9 Data analysis

The statistical analysis of the data will be conducted at two levels, namely, the levels of descriptive and inferential statistics. In this section, the two categories of statistics will be discussed. Thereafter, an outline of the various statistical techniques that will be used in order to answer the research questions will be provided.

4.9.1 Descriptive statistics

Descriptive statistics serve a number of important purposes in the data analysis process. Firstly, descriptive statistics such as the mean, standard deviation, and frequency can be used to describe the characteristics of the sample (e.g. age, sex, and race) or the characteristics of different variables within the data set. Secondly, descriptive statistics can be used to determine whether the variables selected for different statistical techniques meet the assumptions which underlie those techniques. Thus, descriptive statistics will play a role in assisting the researcher to address the specific research questions.

4.9.2. Inferential statistics

Since, generally speaking, it is not possible for researchers to obtain data from an entire population, they often have to create samples which reflect the characteristics of the populations that they are interested in. With inferential statistics, researchers are interested in drawing conclusions on the nature of a phenomenon within a larger population, based on the results from their micro-populations or samples. According to Field (2009), the only inference that can be drawn from the results of inferential statistics is that the results are likely to be found in the population or that they are not likely to be found in the population. The level of significance which results from the inferential statistics that are used to assess the nature of a phenomenon in the population gives an indication of the probability that the results from the study will be found in the target population.

The inferential statistic that will be used in this study is the mixed-design analysis of variance (mixed-design ANOVA). In order to explain why this method of analysis will be used, it is necessary to start by describing the measures that have been created to answer this study's

research questions. Once a description of how these measures are created is provided, the process of dyadic data analysis will be explained. The explanation of dyadic data analysis will contain details of how this method of analysis helps to overcome the violation of one of the most important assumptions of parametric inferential statistics namely, the assumption of independence of observations (Pallant, 2005). The section concludes with an explanation of how this assumption affected the researcher's decision to answer the research questions by using the mixed-design ANOVA.

4.9.3 The measures of overall accuracy and acceptance

There are several points which must be considered in order to understand how the measures of overall accuracy and acceptance were developed. To understand how these measures were constructed, the first point that must discussed concerns the questionnaires that were sent out to the participants.

Each of the questionnaires (Annexure 2) that were sent out to participants consisted of three sections. Section A assessed the values that the participants considered important to their own lives; in other words, their personal values. The instructions for this section were the same for adolescents and their parents. The instruction for this section, which adheres to the standard instruction for the PVQ, was: "In this section we briefly describe some people. Please read each description and think about how much each person is or is not like you."

Section B is the most important section relating to how the measures of overall accuracy and acceptance were created. In this section, the instructions to adolescents and their parents differed. Adolescents were instructed to think about how their mothers and fathers would like them to respond to each item within the questionnaire. The adolescents were provided with two Likert-type scales, side by side, so that they could give separate answers for how they thought their mothers and their fathers would like them to respond to each item. In contrast, parents were asked to think about how they would like their son/daughter to respond to each item within the questionnaire. This different set of instructions for adolescents and parents was the first step towards the creation of the measures of adolescents' overall accuracy and acceptance of the values that they feel their parents find as important for their lives. The

second step involved creating the ten value construct scores which develop from the 40 items of the PVQ-IV.

4.9.4 Creating the ten value construct scores

In the instruction manual for the PVQ-IV, Schwartz suggests that there are a number of steps which must be followed in order to create a score for each value construct. Schwartz suggests that these steps are necessary in order to compensate for the problem of individual and cultural differences in the use of the response scale (Saris, 1993; Smith, 2004). To correct for scale use, Schwartz's scoring key for the PVQ-IV suggests that the researcher (a) compute scores for the 10 values by taking the means of the items that index each construct, (b) compute each individual's mean score across all 40 value items – called MRAT score, and (c) centre scores for each of the 10 value constructs for an individual by subtracting the MRAT score from each of the ten value construct scores –computed in (a).

With an understanding of how to construct the scores for each value construct, it is possible to explain exactly how the measures of adolescents' overall accuracy and acceptance of what they perceive as their parents' socialisation values were created.

4.9.5. The measure of overall accuracy

Figure 4.4 provides a graphical representation of how the different instructions in section B of the questionnaire were used to create the measure of overall accuracy. Once the construct scores from the adolescent's responses to section B as well as the adolescent's parents' responses to section B had been constructed, it was possible to create the measure of overall accuracy.

What the researcher would like the reader to realise about the measure of overall accuracy is that it is constructed by taking two separate sets of scores, one from the adolescent (son/daughter) and one from the parent (mother/father) and, from these scores, determining a measure of correspondence between the two sets of scores. Just how these two separate scores are joined together to construct a measure of correspondence (accuracy) depends on

what kind of correspondence or similarity the researcher is aiming to assess (Kenny, Kashy, & Cook, 2006).

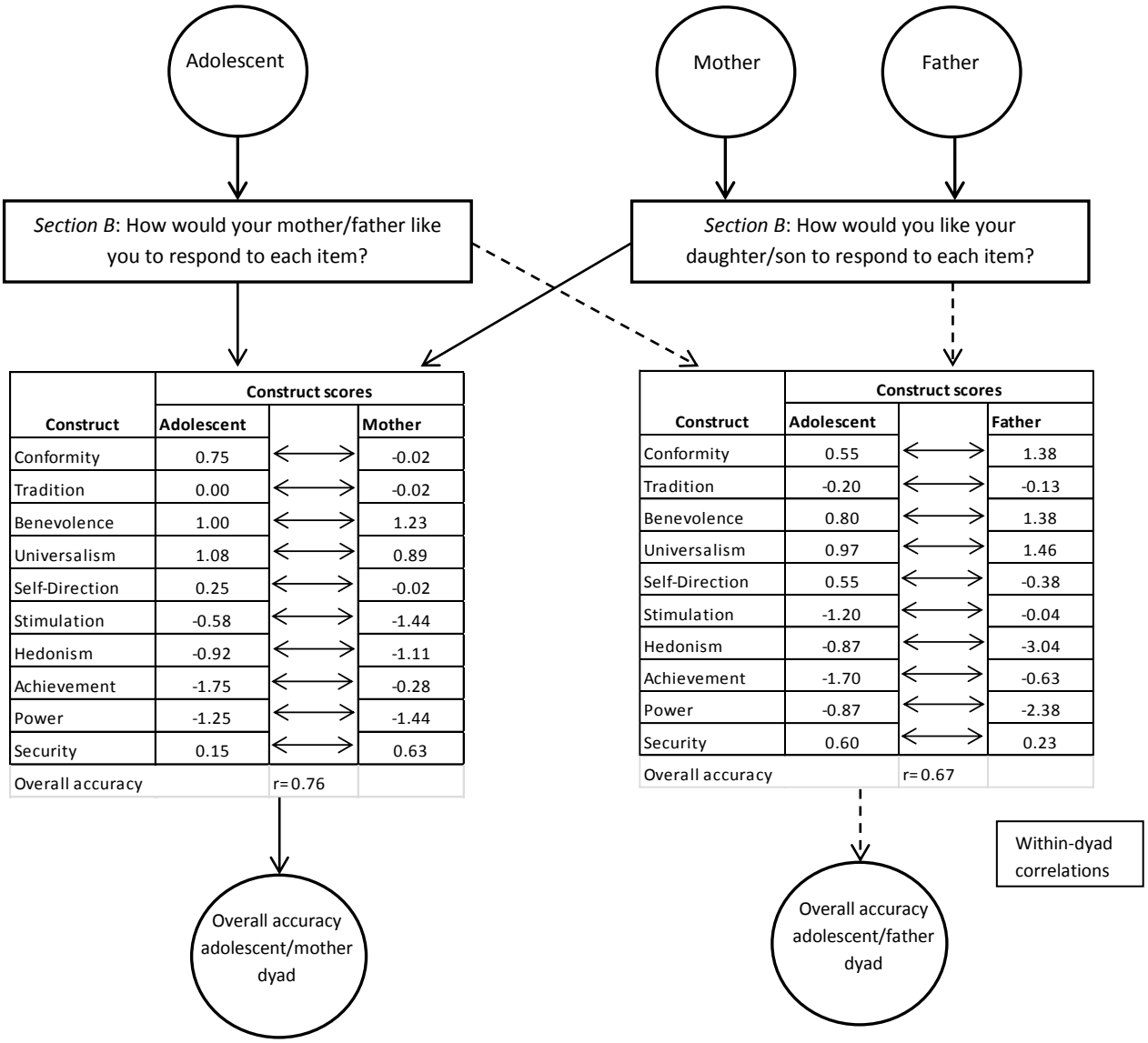

Figure 4.4 The construction of the measure of overall accuracy

Based on Knafo and Schwartz's (2003) research, it is believed that the measure of overall accuracy assesses the similarity in the shapes of the adolescent's scores across the ten value constructs and the parent's scores across the ten value constructs (scores from section B). Using Figure 4.5 to explain what shape means, the researcher points the reader's attention to the construct scores for tradition, hedonism, and power. The large differences in the adolescent's and the father's scores on the hedonism and power value constructs drastically

change the similarity in the shape of the lines which represent their scores on the ten value constructs. If, for example, the father's score of -3.04 was closer to the adolescent's score of -0.87, the shape of the lines which represent their scores on the ten value constructs would be more similar. Greater similarity in the shape of the lines would represent the adolescent's greater level of overall accuracy in perceiving the level of importance that his father places on the different values as socialisation values.

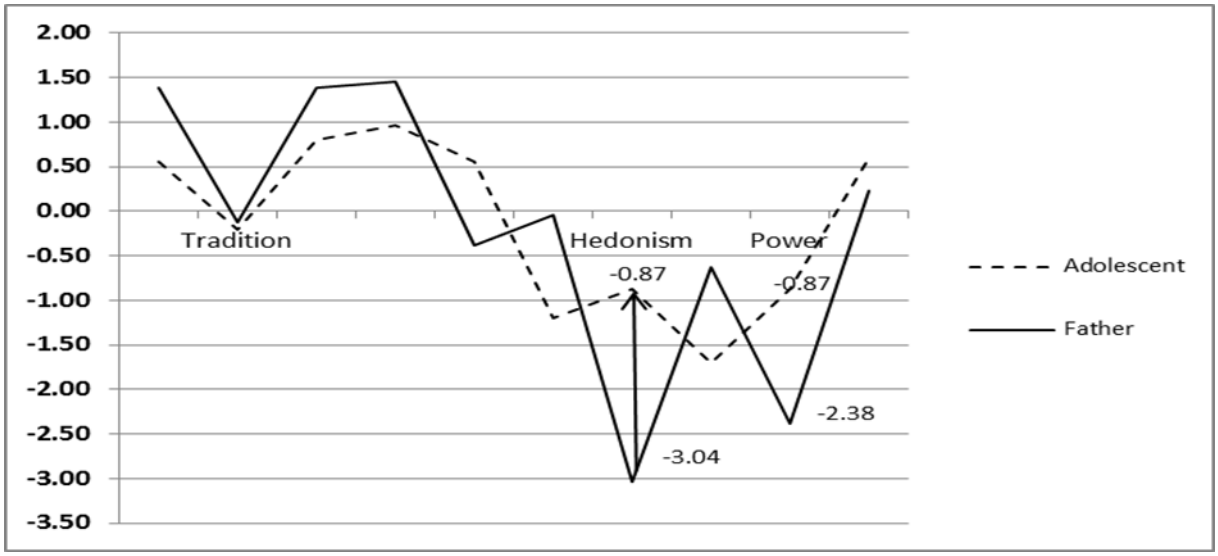

Figure 4.5 Graphical representation of the similarity in shape in dyad members' scores across the ten value constructs

Based on Kenny et al.'s (2006) instruction, the measure of similarity in shape or overall accuracy will be created by correlating the scores of the ten values constructs within each parent-child pairing (dyad). This process, which is called within-dyad correlation, is illustrated in Figure 4.4

4.9.6 The measure of overall acceptance

The process of creating the measure of adolescents' overall acceptance of the values that adolescents feel their parents consider important for their lives does not differ much from the process of creating the measure of overall accuracy (described above). There is just one fundamental difference between the measures. Instead of using both adolescents' and parents' responses from section B, the measure of overall acceptance is created by correlating an adolescent's responses to section A (personal values) and his or her responses to section B

(perceived importance of parental socialisation values). This process is illustrated in Figure 4.6.

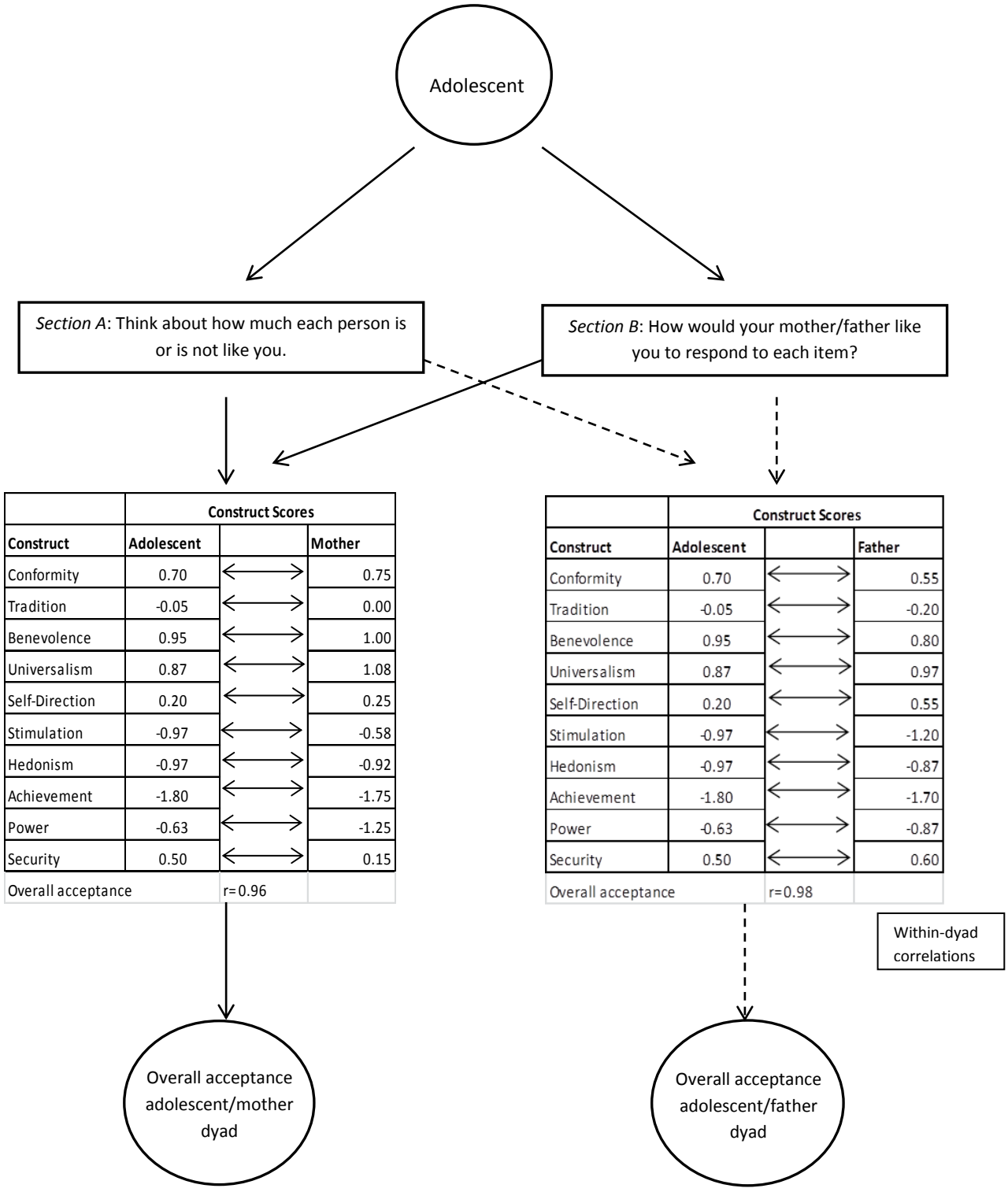

Figure 4.6 The construction of the measure of overall acceptance

Like the measure of overall accuracy, the measure of overall acceptance is also a measure of the similarity in the shape of the lines which represent an adolescent's value construct scores from section A and value construct scores from section B (for each parents separately). Based on Figure 4.6, the reader may notice that the measure of overall accuracy includes adolescents' responses to section B – the level of importance that they believe their parents place on different socialisation values for their lives. Thus, the measure of overall accuracy is more adequately defined as a measure of adolescents' overall acceptance of perceived parental socialisation values rather than adolescents' overall acceptance of parents' actual parental socialisation values. Barni et al. (2011) believe that measuring adolescents' overall acceptance of perceived parental socialisation values is probably more important than measuring their acceptance of actual parental socialisation values because adolescents' perceptions of what their parents expect from them is more likely to guide their choices and behaviours.

4.9.7 The measures of accuracy and acceptance of specific parental socialisation values

As was briefly mentioned in section 4.2, the measures of overall accuracy and acceptance and the measures of adolescents' accuracy in perceiving and acceptance of specific parental socialisation are constructed differently. Whereas the measures of overall accuracy and acceptance correlated dyad members' scores across the ten value constructs, the measures of accuracy and acceptance of specific parental socialisation values are constructed for each value construct. This section discusses how the measures of adolescents' accuracy in perceiving and acceptance of specific parental socialisation values were constructed.

4.9.7.1 The measure of adolescents' accuracy in perceiving specific parental socialisation values

Knafo and Schwartz (2003) suggest a number of steps which should be followed in the construction of the measure of adolescents' accuracy in perceiving the importance that their parents place on a specific socialisation value. However, the researcher found that this method of creating the measure of adolescents' accuracy in perceiving the importance that their parents place on specific socialisation value was problematic. Firstly, Knafo and Schwartz suggest ranking each dyad member's centred score for each value, with 1 indicating

the value with highest importance and 10 with the lowest importance. Secondly, they suggest creating an absolute score by subtracting the one dyad member's (e.g. adolescent's) rank score for a value from the other dyad member's (e.g. mother's) rank score for the same value (e.g. 9 - 8= 1). The problem with the two above-mentioned steps is that they drastically reduce the amount of variation in specific accuracy scores. Scores can only range between 1 and 10 (range = 9). Furthermore, after this initial analysis using the Knafo and Schwartz's suggestions, it was found that adolescents' specific accuracy scores were generally high and had a range that was even smaller than nine. Thus, the researcher was faced with a situation where the specific accuracy scores were much closer to categorical variables than to continuous variables. This was highly problematic because it would not have been possible to use inferential statistics with categorical variables.

Based on the problems inherent in Knafo and Schwartz's (2003) method, it was decided to construct the measure of adolescents' accuracy in perceiving specific parental socialisation values by using simple absolute differences. Although the Knafo and Schwartz point to Cronbach's (1955) discussion of the limitations in using simple absolute differences as a measure of accuracy, it was believed that the process of centring scores (discussed in section 4.9.4) should help to address the problem of central tendency involved in elevation and differential elevation. Thus, the simple absolute differences which develop from the centred value scores should avoid the problems of elevation and differential elevation discussed by Cronbach (1955).

Like the measure of overall accuracy, the measure of adolescents' accuracy in perceiving the level of importance that their parents place on a specific socialisation value also draws on both adolescents' and parents' responses to section B of the questionnaire. The major difference is that the measure of overall accuracy develops from conducting within-dyad correlations across the ten value constructs whereas the measure of specific accuracy focuses on the distance or the simple absolute difference between the dyad members' (e.g. adolescent's and mother's) scores for a specific value.

Essentially, the distance or absolute difference between the adolescent's (for example a male adolescent's) and his mother's scores for a specific value construct represent the accuracy of the adolescent's approximation of the level of importance that his mother places on a specific

socialisation value. To construct the simple absolute difference which represents the measure of specific accuracy, the researcher could simply subtract the one dyad member's centred value score (.e.g. adolescent's score) for a specific value from the other dyad member's centred value score (e.g. mother's score) for the same value. However, since centred scores can have both positive and negative values, as is illustrated in Table 4.4, there may be cases where a larger centred score is subtracted from a smaller centred score which results in the simple absolute difference (specific accuracy) score having a negative value. To avoid this problem, simple absolute differences were obtained by using Excel's IF function. This formula always subtracts the smaller of the dyad members' scores for a particular value from the larger of the dyad members' scores for the same value. To make sense of all this information, Table 4.4 illustrates how the measure of adolescents' accuracy in perceiving the level of importance that their mothers and fathers attribute to a specific socialisation value was constructed.

To obtain the adolescent's (for example male adolescent's) accuracy in perceiving the level of importance that his mother places on the value of conformity, the formula =IF(B1>C1,+B1-C1,C1-B1) subtracts the adolescent's centred value score for conformity from the mother's centred score for conformity. The resulting simple absolute difference is 0.77. A simple absolute difference of 0.00 would indicate that the adolescent was perfectly accurate in his perception of the level of importance that his mother attributes to the specific value. The further the simple absolute difference is from 0.00, the less accurate the adolescent's accuracy is in perceiving the level of importance that his mother places on the specific value. Using table 4.4 as an example, the score of 0.02 for tradition indicates that the adolescent had a very high level of accuracy in perceiving the level of importance that his mother places on the value of tradition as a socialisation value. In contrast, the score of 1.47 indicates that the adolescent was not very accurate in perceiving the level of importance that his mother attributes to the value of achievement as a socialisation value. Thus, if the simple absolute difference of 0.77 for conformity is compared to the other value constructs, the adolescent had a relatively low level of accuracy in perceiving the level of importance that his mother places on the value of conformity as a socialisation value.

TABLE 4.5 Steps in creating the measure of adolescents' accuracy in perceiving the importance of a specific parental socialisation value

	A	B	C	=IF(B1>C1,+B1-C1,C1-B1)
		Centred Scores		
		Adolescent	Mother	Specific Accuracy
1	Conformity	0.75	-0.02	0.77
2	Tradition	0.00	-0.02	0.02
3	Benevolence	1.00	1.23	0.23
4	Universalism	1.08	0.89	0.19
5	Self-direction	0.25	-0.20	0.45
6	Stimulation	-0.58	-1.44	0.86
7	Hedonism	-0.92	-1.11	0.19
8	Achievement	-1.75	-0.28	1.47
9	Power	-1.25	-1.44	0.19
10	Security	0.15	0.63	0.48

4.9.7.2 The measure of adolescents' acceptance of specific parental socialisation values

Much like the measure of adolescents' overall acceptance of what they perceive as their parents' socialisation values, adolescents' acceptance of the importance that their parents place on a specific socialisation value draws on adolescents' responses to section A (personal values) and section B (perceived importance of parental socialisation values) of the questionnaire. The measure of adolescents' acceptance of what they perceived as the level of importance that their mothers or fathers place on a specific socialisation value was constructed following the same steps described for the measure of specific accuracy.

4.10 Dyadic data analysis

In this section the main focus of dyadic data analysis, namely the assessment and management of nonindependence, will be outlined. After outlining what nonindependence refers to, there will be a discussion of how this concept could affect the analyses that will be performed in this study. The discussion of how the problem of nonindependence will be addressed, will be followed by an explanation of the statistical technique that will used to answer the research questions set out in this study.

4.10.1 Nonindependence

The process of dyadic data analysis revolves around the concept of dyadic nonindependence. Kenny et al. (2006, p. 4) state that the scores from two members of a dyad are nonindependent if these "two scores are more similar to (or different from) one another than two scores from two people who are not members of the same dyad". They also state that it is important to assess dyadic nonindependence because dyadic data – or data that represents the scores from two members who are in a relationship – typically violates one of the most important assumptions of most standard statistical techniques namely, the assumption of the uniqueness or independence of the units used in an analysis.

When the units of data used for an analysis are nonindependent, the units of data or number of observations of a specific variable are not truly independent of each other. This implies that the number of unique or independent units of data is less than the actual number of units specified within the data set. This problem of nonindependence affects tests of significance and hypothesis testing in two important ways. Firstly, since nonindependence affects the number of truly independent units of data being used to make a calculation, it biases the degrees of freedom in tests of significance (Kenny et al., 2006). Secondly, because nonindependence affects degrees of freedom, it also affects the calculation of variance which would also drastically affect tests of significance by making these tests either too liberal or too conservative.

4.10.2 The extent of nonindependence in the measures of accuracy and acceptance

The measures of accuracy and acceptance within the current study are examples of what Kenny et al. (2006) term 'dyadic-level variables'. These measures are dyadic-level variables because they are constructed from the scores of the two members within a dyad – construction of measures discussed in sections 4.9.5 to 4.9.7. As a result, both members of the dyad have exactly the same score on the measures. Since both members have the same score on the measures, the score supplied by one member of the dyad is completely redundant in relation to the score provided by the other dyad member. In other words, the scores are completely or perfectly nonindependent.

4.10.3 How to manage nonindependence

Kenny et al. (2006) suggest that, if dyadic data is nonindependent, the data cannot be analysed using the standard or individual dataset structure. As is illustrated in Table 4.5, recording perfectly nonindependent data in an individual dataset structure would mean that the analysis would be conducted on what the technique assumes is 12 independent observations of overall accuracy. However, in reality, the second score from each dyad is completely redundant in relation to the first score. In essence, there are only 6 independent units of observation although the analysis is being conducted on 12 seemingly 'independent' observations.

TABLE 4.6 Individual data structure

Individual Data Structure				
Dyad	Person	Sex	Group	Overall accuracy (Fisher's z-score)
1	1	1	1	0.633
1	2	1	1	0.633
2	1	2	1	0.662
2	2	2	1	0.662
3	1	1	2	0.758
3	2	1	2	0.758
4	1	2	2	0.709
4	2	2	2	0.709
5	1	1	1	0.758
5	2	1	1	0.758
6	1	2	1	0.648
6	2	2	1	0.648

If the data is confirmed as being nonindependent, Kenny et al. (2006) suggest that researchers can use a dyadic data structure to avoid the consequences of nonindependence. This dyadic data structure is illustrated in Table 4.6.

TABLE 4.7 Dyadic data structure

Dyadic Data Structure			
Dyad	Adolescent Sex	Parent sex	Overall accuracy (Fisher's z-score)
1	1	1	0.633
2	2	1	0.662
3	1	2	0.758
4	2	2	0.709
5	1	1	0.758
6	2	1	0.648

The data included in this data structure is exactly the same as the data included in the standard data structure illustrated above. The main difference between the two data structures is the unit of analysis. The standard data structure treats the individual as the unit of analysis. This structure ignores the nonindependence of data and is obviously highly problematic. In contrast, the dyadic data structure treats the dyad as the unit of analysis. As is illustrated in Table 4.6, instead of presenting twelve individual observations, the dyadic structure presents six dyad-level observations. This overcomes the problem of nonindependence because, although the scores of the dyad's members are nonindependent, the scores between dyads are independent (Kenny et al., 2006).

4.11 Mixed-design ANOVA

4.11.1 Assessing sex-based differences in overall accuracy and acceptance using mixed-design ANOVA

The previous section discussed how nonindependence affects degrees of freedom, variance, and ultimately tests of significance. In addition, the section discussed how using a dyadic data structure, which treats dyad as the unit of analysis, helps to overcome the problem of nonindependence. In this section, the rationale behind the decision to use the mixed-design ANOVA to answer the research questions set out within this study, will be discussed.

In order to explain why the method of mixed-design ANOVA is used to determine whether there are sex-based differences in adolescents' overall accuracy in perceiving and acceptance

of parental socialisation values, two important points need to be mentioned. Firstly, as the research questions and hypotheses suggest, the research is interested in determining whether there are 'sex-based differences' in adolescents' overall accuracy in perceiving and acceptance of parental socialisation values. These differences are assessed by looking for differences in the mean scores which represent male and female adolescents' overall accuracy in perceiving and acceptance of what they perceive as their mothers' and their fathers' socialisation values. In the assessment of sex-based differences in overall accuracy and acceptance, there are two independent variables – adolescent sex and parent sex. Normally, the analysis of variance with two independent variables would require the use of a two-way ANOVA. However, within this study, neither of the independent variables are t between-subjects variables – variables where different *groups* of participants are used for each level of the *variable*.

In the assessment by Barni et al. (2011) of sex-based differences in adolescents' acceptance of what they perceive as their parents' socialisation values, they make use of a mixed-design ANOVA. According to Field (2008) and Kenny et al. (2006), a mixed-design ANOVA is used when a researcher has a mixture of two different kinds of independent variables namely, a between-subjects variable and a repeated or within-subjects variable – where the same groups of participants are used for each level of the variable. In their mixed-design ANOVA, Barni et al. (2011) treated parent sex as the within-subjects factor (2 levels: father, mother) and adolescent sex as the between-subjects factor (2 levels: male, female). The researcher believes that Barni et al. treated parent sex as the within-subject or repeated measure variable because of the fact that adolescents were asked to make repeated observations/ judgements of both their mothers' and their fathers' socialisation values.

In terms of how these variables are arranged in a dataset so that they can be analysed using SPSS, Field (2008) states that the levels of the within-subject or repeated measure variable are placed into different columns and the between-subjects independent variable is placed in a single row. This dataset layout is illustrated in Figure 4.7. In the column 'adolescent sex', 1 would represent male/son and 2 would represent female/daughter. The scores in the 'mother' and 'father' columns represent the converted r to z scores which represent adolescents' overall accuracy in perceiving their mothers' and fathers' socialisation values. Despite the fact that these scores are within the columns for the independent variable 'parent sex', this is

the standard dataset layout for a mixed-design ANOVA analysis in SPSS. 'Parent sex' (mother and father columns) is still one of the independent variables in the analysis and overall accuracy is still the outcome or dependent variable.

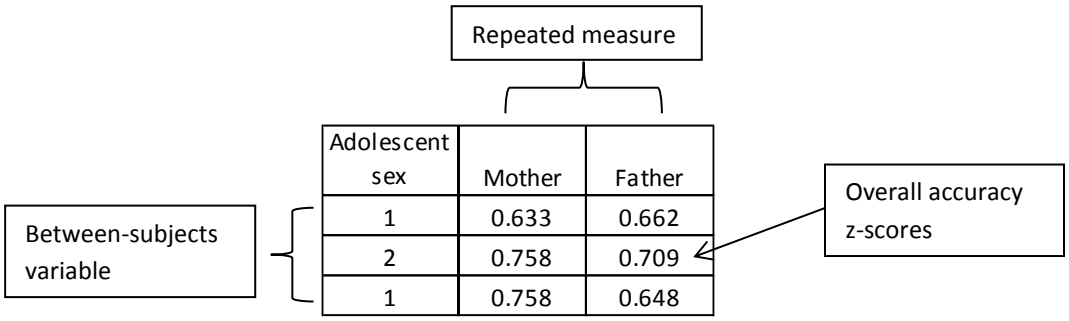

Figure 4.7 Mixed-design ANOVA dataset layout

The reader will notice that this dataset layout is different from the dyadic data structure that was illustrated in Table 4.6. Like the dyadic data structure, this layout also avoids the consequence of ignoring nonindependence. Furthermore, since this mixed-design ANOVA dataset layout treats the two measures of overall accuracy in perceiving mother's and father's parental socialisation values as repeated observations made by an adolescent, this further reduces the nonindependence which would result from the dyadic data structure – which treats dyads as independent.

It should be pointed out that, in the section above, the mixed-design ANOVA process for the analysis of sex-based differences in adolescents' overall accuracy in perceiving their parents' socialisation values was discussed, and not the process of analysing adolescents' overall acceptance of what they perceive as their parents' socialisation values. In order to prevent confusion, the researcher tried to avoid mentioning overall accuracy and overall acceptance together. However, the process of assessing sex-based differences in adolescents' overall acceptance of what they perceive as their parents' socialisation values is exactly the same as the process that was outlined for overall accuracy.

4.11.2 Assessing sex-based differences in adolescent's accuracy in perceiving and acceptance of specific parental socialisation values

Like the assessment of sex-based differences in overall accuracy and acceptance, sex-based differences in adolescent's accuracy in perceiving and acceptance of specific parental socialisation values will be assessed, using a mixed-design ANOVA. However, as was discussed in section 4.9.7, the measures of accuracy and acceptance of specific parental socialisation values are constructed differently from the measures of overall accuracy and acceptance. Thus, the process of analysis is exactly the same as mentioned for overall accuracy and acceptance, with the sole difference being the outcome variables which are used in the analyses.

The only other main difference is the number of mixed-design ANOVAs that have to be conducted in order to assess for sex-based differences in adolescent's accuracy in perceiving and acceptance of specific parental socialisation values. For sex-based differences in adolescents' accuracy in perceiving the importance that their parents place on specific socialisation values, ten separate mixed-design ANOVAs will have to be conducted. Similarly, in order to assess sex-based differences in adolescents' acceptance of what they perceive as the importance that their parents place on specific socialisation values, ten separate mixed-design ANOVAs will have to be conducted.

The contention is that, although several mixed-design ANOVAs have to be conducted, this is still a better option than conducting one or possibly two multiple analyses of variance (MANOVA), mainly because of the presence of the within-subject variable. The use of MANOVA is problematic when a researcher includes one or more within-subjects variables within a MANOVA analysis (French, Macedo, Poulsen, Waterson, & Yu, 2010). Furthermore, French et al. state that this situation lends itself to the use of a different method of analysis, namely profile analysis. Additionally, the researcher is not attempting to assess the strength of the association between the dependent variables or the differences in the importance of the dependent variables. Therefore, it seems that the research questions in this study are still best answered by using the method of mixed-design ANOVA.

4.12 Ethical considerations

In order to assess the ethics of this study, the four widely accepted philosophical principles of autonomy and respect, nonmaleficence, beneficence and justice will be discussed as well as the ethical considerations related to the participants within the study.

In the consent forms (Annexure 3) that were sent out to participants, participants were informed that their participation in this study was voluntary and that they had the right to withdraw from the study at any time. The participants were informed that they faced no consequences for their withdrawal and that the information that they provided would not be used in the study if they withdrew. They were also informed that this study was being conducted as a requirement for the master's degree that the researcher was completing and that the study was not being conducted for any institution that they were involved with, such as the adolescents' respective schools. In addition, a letter was sent out to all potential participants to inform them about the various processes involved in the research and the way in which their information would be used by the researcher. All these steps were taken in order to ensure that the participants were aware of what they consented to when they agreed to participate in the study.

The participants were also informed that their information would be kept confidential and that their identities would be kept anonymous. No harm was expected to befall research participants directly or indirectly as a result of their participation in this study. In terms of the beneficence and maximising of the benefits that the research afforded to participants, this study did not promise widespread changes in the participants' lives. It did offer participants the opportunity to explore the values they hold as well as their perceptions of the values that their family members involved in the study would like them to possess.

After the conclusion of this study, the research participants were offered the opportunity to receive individual automated feedback on their value priorities, based on their responses. This study also offered participants the opportunity to attend a discussion of the results of the study. This step was taken because it seemed to be a fair and ethical way of thanking the participants for their participation. It also served as an opportunity for participants to clarify any outstanding concerns or misunderstandings they may have had.

In terms of the last philosophical principle of justice, the research participants were treated with equity during all stages of the research process. The selection of participants could be seen as fair since, although minimum selection criteria were used, these criteria had to be set in order to answer the research questions within this study.

The only ethical concern that arose in this study was that it required the participation of minors that is, children under the age of sixteen. Informed assent was obtained from adolescents and informed consent was obtained from their parents. Informed consent was also obtained from parents who participated in the study. It is also believed that the relatively more familial focus of the study helped ease this ethical concern because parents were exposed to the same kind of questionnaire as adolescents, thus familiarising them with the kind of information that their children were required to provide for this study.

CHAPTER 5

RESULTS

5.1 Introduction

This chapter presents the results of the analysis of the research hypotheses. The chapter begins with an assessment of the first hypothesis which related to overall accuracy and thereafter presents the results of the assessment of hypotheses two through six. The chapter concludes with a discussion of the results.

5.2 Overall accuracy

In the first research hypothesis, it was maintained that the mean score which represents female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values would be significantly higher than the mean score which represents male adolescents' overall accuracy in perceiving their mothers' and their fathers' parental socialisation values. In the section below, the descriptive statistics which provide some insight into the first hypothesis will be presented.

5.2.1 Descriptive statistics

Looking at Tables 5.1 and 5.2, the difference between male and female adolescents' mean scores, which represent their overall accuracy in perceiving their mothers socialisation values, indicates that male adolescents' overall mean score was slightly higher than female adolescents' mean score. Transforming this mean score back to Pearson's correlation coefficient, there was a difference of r = .07 between the mean scores which represent male and female adolescents' overall accuracy in perceiving their mothers socialisation values.

TABLE 5.1 Overall accuracy (mothers' socialisation values) Fisher's z transformation

Adolescents' overall accuracy in perceiving their mothers' socialisation values (*z-scores)*		
	Male	**Female**
Mean	0.513	0.421
Variance	0.211	0.242
Std. Deviation	0.460	0.490
Minimum	-0.365	-1.017
Maximum	1.818	1.470
Range	2.183	2.487

TABLE 5.2 Overall accuracy (mothers' socialisation values) Pearson's correlation coefficient (r)

Adolescents' overall accuracy in perceiving their mothers' socialisation values (Pearson's r)		
	Male	**Female**
Mean	0.47	0.40
Variance	0.21	0.24
Std. Deviation	0.43	0.45
Minimum	-0.35	-0.77
Maximum	0.95	0.90
Range	0.97	0.99

Similarly, the measures of dispersion – variance, standard deviation, minimum, maximum, and range – indicate that there are similar levels of variation within the groups – male and female adolescents. With regard to the mean scores which represent male and female adolescents' overall accuracy in perceiving their fathers' socialisation values, Tables 5.3 and 5.4 indicate that the mean score which represents female adolescents' accuracy in perceiving the fathers' socialisation values was slightly higher than male adolescents' mean score. With regard to the measures of dispersion, the groups' scores had similar levels of dispersion.

TABLE 5.3 Overall accuracy (fathers' socialisation values) Fisher's z transformation

Adolescents' overall accuracy in perceiving their fathers' socialisation values (*z-scores)*		
	Male	**Female**
Mean	0.443	0.498
Variance	0.213	0.205
Std. Deviation	0.461	0.452
Minimum	-0.469	-0.782
Maximum	1.767	1.724
Range	2.236	2.506

TABLE 5.4 Overall accuracy (fathers' socialisation values) Pearson's correlation coefficient (r)

Adolescents' overall accuracy in perceiving their fathers' socialisation values (Pearson's r)		
	Male	**Female**
Mean	0.42	0.46
Variance	0.21	0.20
Std. Deviation	0.43	0.42
Minimum	-0.44	-0.65
Maximum	0.94	0.94
Range	0.98	0.99

5.2.2 Mixed-design ANOVA

As was discussed in chapter 4, section 4.11, a mixed-design ANOVA will be used to assess the first research hypothesis; namely, that the mean score which represents female adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values will be significantly higher than the mean score which represents male adolescents' overall accuracy in perceiving their mothers' and fathers' parental socialisation values.

Before moving on to the results of the mixed-design ANOVA, it must be assessed whether the data meets the assumptions associated with this data analysis technique.

5.2.3 Assumptions associated with mixed-design ANOVA

The first part of the analysis of this hypothesis is to test whether the data meets the assumptions associated with the mixed-design ANOVA. Firstly, with regard to the assumption that the dependent variable used to assess for differences between groups is continuous, the variable of 'overall accuracy' is continuous as the measure has a true zero value, the differences between each value represent equal differences, and a person's score on the measure can be measured to various levels of precision. Secondly, with regard to the assumption of independence, sections 4.10 and 4.11.1 discussed the steps that were taken to ensure that the data met the assumption of independence. Thirdly, with regard to the assumption that the scores across the dependent variable are normally distributed, the results of the Kolmogorov-Smirnov statistic (K-S statistic, Table 5.5) indicate that the scores which represent male and female adolescents overall accuracy in perceiving their mothers and their fathers parental socialisation values were normally distributed [mother: male: D (54) = 0.11, p= .16; female: D (63) =0.06, p= .20; father: male: D (54) = 0.08, p= .20; female: D (63) =0.06, p= .20].

TABLE 5.5 Assessing the normality of the overall accuracy scores

Tests of Normality

Adolescent		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Mother	Male	.109	54	.157	.972	54	.245
	Female	.062	63	.200*	.988	63	.782
Father	Male	.081	54	.200*	.984	54	.687
	Female	.058	63	.200*	.989	63	.839

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Fourthly, with regard to the assumption of homogeneity of variance, the non-significant results from Levene's test of equality of variance (Table 5.6) indicate that the variability in the scores for each group (male and female adolescents) were similar [mothers, F (1, 115) = .97, p= .33 ; fathers, F (1, 115) = .03, p= .87].

TABLE 5.6 Assessing for equal variances in male and female adolescents overall accuracy scores

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Mother	.968	1	115	.327
Father	.026	1	115	.872

Finally, as the repeated measure used in the analysis only has two levels, sphericity is not an issue (Field, 2009).

5.2.4 Results of the assessment of hypothesis 1

Table 5.7 illustrates the tests of the within-subjects (parent sex) effects on adolescents' overall accuracy in perceiving their mothers' and their fathers' parental socialisation values. The results show that the effect of parent sex on overall accuracy was not statistically significant, F (1, 115) = .003, *ns*. The results also indicate that the interaction effect between parent sex and adolescent sex was not significant, F (1, 115) = 1.86, *p*= .18.

TABLE 5.7 Test of within-subjects (parent sex) effects for overall accuracy

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.001	1	.001	.003	.954
	Greenhouse-Geisser	.001	1.000	.001	.003	.954
	Huynh-Feldt	.001	1.000	.001	.003	.954
	Lower-bound	.001	1.000	.001	.003	.954
Parent * Adolescent	Sphericity Assumed	.315	1	.315	1.858	.176
	Greenhouse-Geisser	.315	1.000	.315	1.858	.176
	Huynh-Feldt	.315	1.000	.315	1.858	.176
	Lower-bound	.315	1.000	.315	1.858	.176
Error(Parent)	Sphericity Assumed	19.485	115	.169		
	Greenhouse-Geisser	19.485	115.000	.169		
	Huynh-Feldt	19.485	115.000	.169		
	Lower-bound	19.485	115.000	.169		

The results from Table 5.8 are of the most importance with regard to the first hypothesis that the mean score which represents female adolescents' accuracy in perceiving their mothers' and fathers' parental socialisation values will be significantly higher than the mean score

which represents male adolescents' accuracy in perceiving their mothers and fathers parental socialisation values. Based on the result from table 5.8, it can be concluded that the effect of adolescent sex on adolescents accuracy in perceiving their mothers and fathers parental socialisation values was not statistically significant, F (1, 115) = .07, *ns*. Based on this result, the null hypothesis which states that there are no significant differences between the mean scores which represent male and female adolescents' overall accuracy in perceiving their mothers and fathers parental socialisation values is accepted.

TABLE 5.8 Test of between-subjects (adolescent sex) effects on adolescents' overall accuracy

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	51.148	1	51.148	191.471	.000
Adolescent	.019	1	.019	.071	.791
Error	30.720	115	.267		

5.3 Overall acceptance

The second research hypothesis was that the mean score which represents female adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values will be significantly higher than the mean score which represents male adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values. Before turning to the results of the mixed-design ANOVA which assessed this hypothesis, the researcher presents the review of whether the data met the assumptions associated with the approach as well as the descriptive statistics which offer a precursory view into the results which could be expected from the mixed-design ANOVA analysis.

5.3.1 Assessment of assumptions

In the assessment of the normality of the distribution of the overall acceptance scores, it was found that the K-S statistic indicated that male adolescents' overall accuracy scores were not normally distributed. By assessing the outliers or scores which were well below or above the

majority of other scores, it was found that one male adolescent's score was well above both male and female adolescents' scores. After assessing the individual case, the researcher found that this individual provided the same response to all 40 items of the PVQ-IV for both sections A and B. This would explain why this individual had perfect positive correlations and maximum overall acceptance scores. By comparing the mean versus the 5% trimmed mean scores for male adolescents, it was realised that this score greatly affected the male adolescent overall acceptance mean score ($\bar{x}$ = .721, trimmed $\bar{x}$ = .676). Thus, it was decided that this case should be removed from the dataset. After removing this case, the male overall accuracy scores were more normally distributed yet the K-S statistic for male adolescents' overall acceptance of what they perceived as their mothers' socialisation values was still significant [mother: male: *D* (63) = 0.11, *p*= .05; female: *D* (70) =0.09, *p*= .20]. However, the researcher decided against transforming these male overall acceptance scores as this would result in differences in the distances between the scores which represent male and female adolescents' overall acceptance. After assessing all other assumptions – which were outlined in the section above – it was found that the data met all these assumptions [mothers, *F* (1, 131) = 0.16, *p*= .69; fathers, *F* (1, 131) = 3.14, *p*= .08].

5.3.2 Descriptive statistics

Tables 5.9 and 5.10 display the descriptive statistics associated with adolescents overall acceptance of their mothers' parental socialisation values. After deleting the outlier – as described above – male adolescents mean overall acceptance score was more aligned with the 5% trimmed mean score ($\bar{x}$ = .672, trimmed $\bar{x}$ = .654).

TABLE 5.9 Overall acceptance (mothers' socialisation values) z-scores

Adolescents' overall acceptance of what they perceive as their mothers' socialisation values (*z-scores)*		
	Male	**Female**
Mean	0.672	0.684
Variance	0.360	0.399
Std. Deviation	0.600	0.632
Minimum	-0.345	-0.984
Maximum	1.920	2.055
Range	2.265	3.304

TABLE 5.10 Overall acceptance (mothers' socialisation values) Pearson's correlation coefficient (r)

Adolescents' overall acceptance of what they perceive as their mothers' socialisation values (Pearson's r)		
	Male	**Female**
Mean	0.59	0.59
Variance	0.35	0.38
Std. Deviation	0.54	0.56
Minimum	-0.33	-0.75
Maximum	0.96	0.97
Range	0.98	1.00

Comparing male and female adolescents mean overall acceptance scores, their mean overall acceptance scores were identical (Table 5.10). Furthermore, the measures of dispersion indicated that the spread of the scores within the groups was also similar.

TABLE 5.11 Overall acceptance (fathers' socialisation values) z-scores

	Male	Female
Mean	0.565	0.767
Variance	0.372	0.234
Std. Deviation	0.610	0.484
Minimum	-0.682	-0.408
Maximum	2.282	2.055
Range	2.964	2.463

TABLE 5.12 Overall acceptance (fathers' socialisation values) Pearson's correlation coefficient (r)

	Male	Female
Mean	0.51	0.65
Variance	0.36	0.23
Std. Deviation	0.54	0.45
Minimum	-0.59	-0.39
Maximum	0.98	0.97
Range	0.99	0.99

Tables 5.11 and 5.12 display the descriptive statistics associated with adolescents overall acceptance of their fathers' parental socialisation values. Compared to adolescents mean scores of overall acceptance of their mothers' socialisation values, the mean scores of male and female adolescents overall acceptance of their fathers' socialisation values differed more markedly (male $\bar{x}$ = .565, females $\bar{x}$ = .767). The differences in mean scores suggest that compared to male adolescents, female adolescents had slightly higher levels of overall acceptance of their fathers' parental socialisation values. The measures of dispersion also indicated that male adolescents' scores were also slightly more widely dispersed than female adolescents' scores.

5.3.3 Results of the assessment of hypothesis 2

Compared to the findings with regard to the first research hypothesis, the results of mixed-design ANOVA which assessed for sex-based differences in adolescents' overall acceptance of their mothers' and fathers' socialisation values seemed more promising. The results from the tests of the within-subjects (parents) effects, represented in Table 5.13, indicated that the effect of parent sex on overall acceptance was not statistically significant, F (1, 131) = 0.08, *ns*. The results indicated that the parent sex and adolescent sex interaction effect was significant, although the effect size was small – calculated $\eta^2 = SS_{between} / SS_{total}$ [F (1, 131) = 4.95, p= .03, η^2= 0.01].

TABLE 5.13 Test of within-subjects (parent sex) effects for overall acceptance

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.010	1	.010	.084	.772
	Greenhouse-Geisser	.010	1.000	.010	.084	.772
	Huynh-Feldt	.010	1.000	.010	.084	.772
	Lower-bound	.010	1.000	.010	.084	.772
Parent * Adolescent	Sphericity Assumed	.600	1	.600	4.948	.028
	Greenhouse-Geisser	.600	1.000	.600	4.948	.028
	Huynh-Feldt	.600	1.000	.600	4.948	.028
	Lower-bound	.600	1.000	.600	4.948	.028
Error(Parent)	Sphericity Assumed	15.872	131	.121		
	Greenhouse-Geisser	15.872	131.000	.121		
	Huynh-Feldt	15.872	131.000	.121		
	Lower-bound	15.872	131.000	.121		

The tests of the between-subjects (adolescent sex) effects, illustrated in Table 5.14, is of the greatest significance to the second hypothesis. Based on the results of Table 5.14, it can be concluded that the effect of adolescent sex on adolescents overall acceptance of what they perceive as their mothers' and fathers' socialisation values was not significant, $F(1, 131) = 1.36$, $p = .25$. Based on this result, the null hypothesis related to the second hypothesis is accepted namely, that there is no significant difference between the mean scores which represent male and female adolescents' overall acceptance of what they perceive as their mothers' and fathers' parental socialisation values

TABLE 5.14 Test of between-subjects (adolescent sex) effects on adolescents' overall acceptance

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	119.775	1	119.775	214.459	.000
Adolescent	.760	1	.760	1.360	.246
Error	73.163	131	.558		

5.3.4 The parent sex and child sex interaction effect

Although Knafo and Schwartz (2003) found that the parent sex - adolescent sex interaction effect did not significantly affect adolescents overall accuracy in perceiving their parents' socialisation values, Barni et al.'s (2011) study suggested that the interaction effect did influence adolescents overall acceptance of their parents' socialisation values. Their results suggested that compared to male adolescents, female adolescents were more likely to accept their mothers' socialisation values. The results of the parent sex and child sex interaction effect in the current study, illustrated in Figure 5.1, suggest that male and female adolescents do not differ in their overall acceptance of the values that they believe their mothers find as important for their lives (male $\bar{x}$ = 0.684, female $\bar{x}$ = 0.672). However, the results do suggest that when compared to male adolescents, female adolescents are significantly more likely to have higher overall levels of acceptance of their fathers' socialisation values (male $\bar{x}$ = 0.565, female $\bar{x}$ = 0.767).

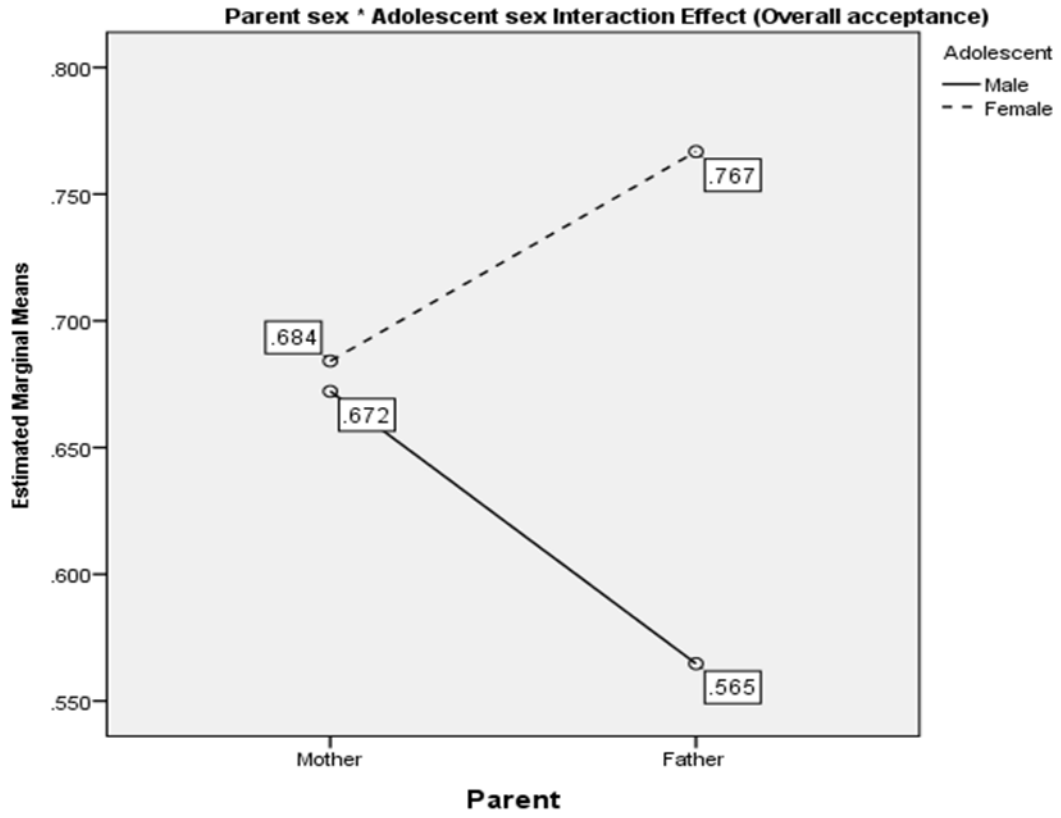

Figure 5.1 The parent sex and adolescent sex interaction effect for overall acceptance

5.4 Specific accuracy

For hypotheses 3 and 4, it was examined whether there are sex-based differences in adolescents' accuracy in perceiving the importance that their mothers and fathers place on specific socialisation values. Thus, instead of assessing for sex-based differences across scores which were constructed correlating a dyad's members' scores (e.g. mother-daughter), the assessment of sex-based differences in specific accuracy involved assessing each value construct individually.

In the section which follows, the results which relate to hypotheses 3 and 4 are presented. Before moving on to discuss the analysis of these hypotheses, the researcher first presents a discussion of the assumptions associated with the technique –mixed-design ANOVA – that was used to assess these hypotheses.

5.5 Assessment of assumptions

The assumption that was of the greatest concern was that of the assumption of normality. When assessing the descriptive statistics for each value construct, it was found that the scores for each and every value construct violated the assumption of normality. The researcher assessed whether it would be viable to remove extreme outliers from the group scores (scores for either male or female adolescents) but found that this action did not affect the results of the K-S tests.

Based on the extent to which the distributions of some of the measures of specific accuracy deviated from that of a normal distribution, the decision was taken to transform the distributions of these scores. It was decided to transform the distributions of these scores due to the significant levels of skewness in the distributions of these measures. Skewness in the distribution of scores is a problem that must be addressed as it affects both the measures of central tendency and the measures of dispersion within a collection of scores. When the distribution of scores is significantly skewed, the mean does not provide a good or accurate indicator of the centre of the distribution (Tabachnick & Fidell, 2007). Furthermore, as the measures of spread (variance and standard deviation) within a collection of scores are calculated around the mean, these measures also tend to provide an inaccurate representation

of the spread of score. As skewed distributions influence variance, it also affects the analysis of variance within and between groups (that is the F-statistic). Thus, the main reason why it was decided to transform the distributions of the measures of specific accuracy is because this transformation would provide more accurate probability values – greater power (Erceg-Hurn & Mirosevich, 2008; Wilcox, 2005) – and thus a more accurate assessment of the hypotheses. It needs to be pointed out that after transforming the measures of specific accuracy, in some cases one group's (male or female adolescents) distribution of scores still deviated from that of a normal distribution. However, because these deviations were less markedly skewed than the distributions of the untransformed measures, they were less likely to affect the results of the analyses. This is because only markedly skewed distributions are likely to affect test statistics such as the F-statistic and their resulting levels of significance (Data Transformation, n.d.).

With regard to the assumption of heterogeneity of variance, "an added benefit about most of the transformations is that when we transform the data to meet one assumption, we often come closer to meeting other assumptions as well (Data Transformation, n.d., para. 3). Transforming the distributions of specific accuracy measures also helped to equate group variances. This meant that the measures of specific accuracy did not violate the assumption of homogeneity of variance.

5.6 Hypothesis 3

The third research hypothesis that was set out was that the mean scores which represent female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security will be significantly lower than the mean scores which represent male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of benevolence, universalism, and security (significantly lower = higher accuracy). The descriptive statistics for these values constructs are discussed below.

5.6.1 Descriptive statistics

5.6.1.1 Benevolence

Table 5.15 indicates that with regard to adolescents' accuracy in perceiving the importance that their mothers place on the value of benevolence, both groups' (male and female adolescents) mean scores were very similar (male $\bar{x}$ = 0.65, female $\bar{x}$ = 0.70). Looking at the measures of dispersion, the variance and standard deviation were also very similar for both groups. Combining the levels of skewness, kurtosis, and the result of the K-S test, both groups scores were normally distributed [male: *D* (54) = 0.09, *p*= .20; female: *D* (63) =0.10, *p*= .06]. With regard to the assumption of homogeneity of variance, the variances in the two groups were equal [*F* (1, 115) = 0.08, *ns*].

TABLE 5.15 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of benevolence (absolute differences)

	Male	Female
Mean	0.65	0.70
Variance	0.08	0.10
Std. Deviation	0.28	0.32
Minimum	0.00	0.00
Maximum	1.39	1.40
Range	1.39	1.40
Skewness	0.15	0.05
Kurtosis	-0.29	-0.04

TABLE 5.16 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of benevolence (absolute differences)

	Male	Female
Mean	0.67	0.67
Variance	0.07	0.07
Std. Deviation	0.27	0.26
Minimum	0.16	0.16
Maximum	1.35	1.38
Range	1.19	1.22
Skewness	-0.18	0.28
Kurtosis	-0.07	0.41

Looking at Table 5.16, the mean scores for male adolescents and female adolescents were the same. The spread of scores is also quite similar. Looking at the level of skewness and kurtosis in the groups scores, male adolescents' scores seemed more normally distributed than female adolescents scores. However, based on the slightly higher standard error in the skewness and kurtosis scores for male adolescents, the distribution of their scores deviated slightly from that of a normal distribution [male: *D* (54) = 0.13, *p*= 0.04]. Female adolescents' scores were normally distributed [female: *D* (63) =0.08, *p*= .20]. With regard to the assumption of homogeneity of variance, the variances in the two groups were equal [*F* (1, 115) = 0.14, *ns*].

5.6.1.2 Universalism

Table 5.17 indicates that with regard to adolescents accuracy in perceiving the importance that their mothers place on the value of universalism, male adolescents had a slightly lower mean score than female adolescents (male $\bar{x}$ = 0.57, female $\bar{x}$ = 0.66). As was discussed in section 4.9.7, lower scores indicate higher accuracy – the absolute difference between the adolescent's and the parent's scores is smaller, thus representing greater accuracy. This implies that male adolescents were slightly more accurate in perceiving the importance that their mothers placed on universalism as a socialisation value.

The measures of dispersion indicated that male and female adolescents' scores were relatively equally dispersed. This can also be seen by the fact that with regard to the assumption of homogeneity of variance, the variances in the two groups were equal [F (1, 115) = 0.95, p= .33]. With regard to the distribution of the scores, both groups scores were normally distributed [male: D (54) = 0.06, p= .20; female: D (63) =0.08, p= .20].

TABLE 5.17 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of universalism (absolute differences)

	Male	Female
Mean	0.57	0.66
Variance	0.07	0.09
Std. Deviation	0.27	0.30
Minimum	0.00	0.09
Maximum	1.18	1.28
Range	1.18	1.19
Skewness	0.02	-0.07
Kurtosis	-0.56	-0.83

TABLE 5.18 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of universalism (absolute differences)

	Male	Female
Mean	0.69	0.67
Variance	0.08	0.09
Std. Deviation	0.29	0.30
Minimum	0.09	0.13
Maximum	1.30	1.47
Range	1.21	1.35
Skewness	0.04	0.33
Kurtosis	-0.38	-0.22

With regard to male and female adolescents' accuracy in perceiving the importance that their fathers' place on the value of universalism (as a socialisation value), Table 5.18 indicates that the mean scores for male and female adolescents were quite similar (male $\bar{x}$ = 0.69, female $\bar{x}$ = 0.67). With regard to the assumption of homogeneity of variance, the variances in the two groups were equal [F (1, 115) = 0.01, *ns*]. Combined with the low levels of skewness and kurtosis, the K-S test indicated that the distribution of the groups scores were normally distributed [male: D (54) = 0.08, p= .20; female: D (63) =0.08, p= .20].

5.6.1.3 Security

Table 5.19 indicates that with regard to adolescents' accuracy in perceiving the importance that their mothers place on the value of security, male and female adolescents' mean scores were relatively the same (male $\bar{x}$ = 0.73, female $\bar{x}$ = 0.68). With regard to the dispersion of the groups' scores, the dispersions were relatively equal [F (1, 115) = 1.07, *ns*]. Looking at the distribution of the scores, both groups' distributions were quite normally distributed [male: D (54) = 0.10, p= .20; female: D (63) =0.10, p= .20].

TABLE 5.19 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of security (absolute differences)

	Male	Female
Mean	0.73	0.68
Variance	0.10	0.08
Std. Deviation	0.31	0.29
Minimum	0.22	0.16
Maximum	1.42	1.48
Range	1.20	1.33
Skewness	0.39	0.67
Kurtosis	-0.45	0.45

TABLE 5.20 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of security (absolute differences)

	Male	Female
Mean	0.68	0.62
Variance	0.09	0.08
Std. Deviation	0.30	0.29
Minimum	0.16	0.00
Maximum	1.39	1.39
Range	1.23	1.39
Skewness	0.16	0.28
Kurtosis	-0.62	0.04

Looking at adolescents' accuracy in perceiving the importance that their fathers place on the value of security (as a socialisation value), Table 5.20 indicates that both groups mean scores were similar (male $\bar{x}$ = 0.68, female $\bar{x}$ = 0.62). Levene's test also illustrated that the variation in the groups scores could also be considered as equal [F (1, 115) = 0.38, *ns*]. Looking at the distribution of the scores, both groups' distributions were quite normally distributed [male: D (54) = 0.10, p= .20; female: D (63) =0.06, p= .20].

5.6.2 Results of the assessment of hypotheses 3

5.6.2.1 Benevolence

Table 5.21 illustrates the effects of the within-subjects variable on adolescents' accuracy in perceiving the importance that their mothers and fathers place on benevolence – as a socialisation value. Parent sex did not significantly affect adolescents' accuracy, F (1, 115) = 0.02, *ns*. The interaction effect between parent sex and adolescent sex was also not

significant, F (1, 115) = 0.67, *ns*. Furthermore, the result of the tests of the between-subjects effects (Table 5.22) illustrate that adolescent sex does not significantly affect adolescents' accuracy in perceiving the importance that their mothers and fathers place on benevolence as a socialisation value, F (1, 115) = 0.40, *ns*.

TABLE 5.21 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of benevolence

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.001	1	.001	.018	.892
	Greenhouse-Geisser	.001	1.000	.001	.018	.892
	Huynh-Feldt	.001	1.000	.001	.018	.892
	Lower-bound	.001	1.000	.001	.018	.892
Parent * Adolescent	Sphericity Assumed	.043	1	.043	.666	.416
	Greenhouse-Geisser	.043	1.000	.043	.666	.416
	Huynh-Feldt	.043	1.000	.043	.666	.416
	Lower-bound	.043	1.000	.043	.666	.416
Error(Parent)	Sphericity Assumed	7.383	115	.064		
	Greenhouse-Geisser	7.383	115.000	.064		
	Huynh-Feldt	7.383	115.000	.064		
	Lower-bound	7.383	115.000	.064		

TABLE 5.22 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of benevolence

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	106.291	1	106.291	1088.305	.000
Adolescent	.039	1	.039	.403	.527
Error	11.232	115	.098		

5.6.2.2 Universalism

Table 5.23 illustrates the effects of parents' sex on adolescents' accuracy in perceiving the importance that their mothers and fathers place on universalism – as a socialisation value. The results suggest that the effect of parent sex on adolescents accuracy in perceiving the importance that their mothers and fathers place on the value of universalism, is marginally significance, F (1, 115) = 3.31, *p*= .07. This suggests that when the mean scores for adolescents accuracy in perceiving the importance that their mothers and fathers place on the

value of universalism are not split by adolescent sex, adolescents are more accurate in perceiving the importance that their mothers place on the value of universalism (mothers: $\bar{x}$ = 0.62, fathers: $\bar{x}$ = 0.68). This effect was not influenced by adolescent sex. This also explains why there was no significant interaction effect between parent sex and adolescent sex on adolescents accuracy in perceiving the importance that their mothers and fathers place on universalism as a socialisation value, F (1, 115) = 2.09, *p*= .15.

TABLE 5.23 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of universalism

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.252	1	.252	3.312	.071
	Greenhouse-Geisser	.252	1.000	.252	3.312	.071
	Huynh-Feldt	.252	1.000	.252	3.312	.071
	Lower-bound	.252	1.000	.252	3.312	.071
Parent * Adolescent	Sphericity Assumed	.159	1	.159	2.093	.151
	Greenhouse-Geisser	.159	1.000	.159	2.093	.151
	Huynh-Feldt	.159	1.000	.159	2.093	.151
	Lower-bound	.159	1.000	.159	2.093	.151
Error(Parent)	Sphericity Assumed	8.749	115	.076		
	Greenhouse-Geisser	8.749	115.000	.076		
	Huynh-Feldt	8.749	115.000	.076		
	Lower-bound	8.749	115.000	.076		

Looking at the effect of adolescent sex, the result from Table 5.24 illustrates that adolescent sex did not significantly influence adolescents' accuracy in perceiving the importance that their mothers and fathers place on universalism, F (1, 115) = 0.77, *ns*.

TABLE 5.24 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of universalism

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	97.931	1	97.931	1048.376	.000
Adolescent	.072	1	.072	.770	.382
Error	10.742	115	.093		

5.6.2.3 Security

Table 5.25 illustrates the effects of the within-subjects variable (parent sex) on adolescents' accuracy in perceiving the importance that their mothers and fathers place on security – as a socialisation value. The results suggest that the effect of parent sex on adolescents accuracy in perceiving the importance that their mothers and fathers place on the value of security, is marginally significance, F (1, 115) = 2.88, p= .09. The result suggests that ignoring the influence of adolescent sex, adolescents are more accurate in perceiving the importance that their fathers place on the value of security as a socialisation value (mothers: $\bar{x}$ = 0.70, fathers: $\bar{x}$ = 0.65). This result also explains why the interaction effect of parent sex and adolescent sex did not influence adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of security as a socialisation value, F (1, 115) = 0.005, *ns*.

TABLE 5.25 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of security

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.198	1	.198	2.879	.092
	Greenhouse-Geisser	.198	1.000	.198	2.879	.092
	Huynh-Feldt	.198	1.000	.198	2.879	.092
	Lower-bound	.198	1.000	.198	2.879	.092
Parent * Adolescent	Sphericity Assumed	.000	1	.000	.005	.946
	Greenhouse-Geisser	.000	1.000	.000	.005	.946
	Huynh-Feldt	.000	1.000	.000	.005	.946
	Lower-bound	.000	1.000	.000	.005	.946
Error(Parent)	Sphericity Assumed	7.905	115	.069		
	Greenhouse-Geisser	7.905	115.000	.069		
	Huynh-Feldt	7.905	115.000	.069		
	Lower-bound	7.905	115.000	.069		

The result from Table 5.26 also suggests that adolescent sex does not significantly affect adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of security as a socialisation value, F (1, 115) = 1.60, p= .21

TABLE 5.26 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of security

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	106.717	1	106.717	970.717	.000
Adolescent	.176	1	.176	1.598	.209
Error	12.643	115	.110		

5.6.3 Hypothesis 3 – Conclusion

After evaluating the results of adolescents accuracy in perceiving the importance that their parents place on the three values constructs of benevolence, universalism, and security, it was found that in all three analyses, adolescent sex did not significantly influence adolescents' accuracy in perceiving the importance that their mothers and fathers place on the values of benevolence, universalism, and security. Thus, the null hypothesis that there is no significant difference between the mean scores which represent male and female adolescents' accuracy in perceiving the importance that their mothers' and fathers' place on the value types of benevolence, universalism, and security is accepted.

5.7 Hypothesis 4

The fourth research hypothesis was that the mean scores which represents male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation will be significantly lower than the mean scores which represent female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation (significantly lower = higher accuracy). Before discussing the results of the analysis, the descriptive statistics which relate to the three values types/constructs in the fourth hypothesis will be provided.

5.7.1 Descriptive statistics

5.7.1.1 Power

Table 5.27 illustrates that with regard to adolescents' accuracy in perceiving the importance that their mothers place on the value of power as a socialisation value, male adolescents' mean score was lower (indicating higher accuracy) than female adolescents' mean score (male $\bar{x}$ = 0.79, female $\bar{x}$ = 0.88). The measures of dispersion also indicate that the distribution of female adolescents' scores was more widely dispersed. However, based on Levene's test of equality of error variances, the variances in the groups can be seen as equal, F (1, 115) = 1.03, *ns*. Looking at the distribution of the groups scores, the distribution of male adolescents' scores deviated slightly from that of a normal distribution [male: D (54) = 0.12, p= .046; female: D (63) =0.05, p= .20].

TABLE 5.27 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of power (absolute differences)

	Male	Female
Mean	0.79	0.88
Variance	0.10	0.14
Std. Deviation	0.31	0.37
Minimum	0.13	0.13
Maximum	1.51	1.77
Range	1.38	1.64
Skewness	0.25	0.12
Kurtosis	-0.56	-0.34

TABLE 5.28 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of power (absolute differences)

	Male	Female
Mean	0.72	0.88
Variance	0.11	0.16
Std. Deviation	0.34	0.41
Minimum	0.16	0.00
Maximum	1.45	1.81
Range	0.48	1.81
Skewness	0.72	-0.11
Kurtosis	0.25	-0.35

Looking at Table 5.28, the mean scores which represent adolescents' accuracy in perceiving the importance that their fathers place on the value of power indicate that male adolescents' mean score was lower (higher accuracy) than female adolescents' mean score (male $\bar{x}$ = 0.72, female $\bar{x}$ = 0.88). The measures of dispersion indicate that there was more variation within female adolescents' scores. Despite the differences, the assumption of homogeneity of variance was not violated, F (1, 115) = 1.55, p= .22. The distributions of both groups' scores were also normally distributed [male: D (54) = 0.10, p= .20; female: D (63) =0.05, p= .20].

5.7.1.2 Achievement

Table 5.29 indicates adolescents' accuracy in perceiving the importance that their mothers place on the value of achievement as a socialisation value. An inspection of the mean scores suggests that male and female adolescents' mean scores were quite similar (male $\bar{x}$ = 0.82, female $\bar{x}$ = 0.76). Although male adolescents' scores had a slightly broader range, the variations in the groups' scores were very similar, F (1, 115) = 0.40, *ns*. Looking at the distribution of the scores, both groups scores were normally distributed [male: *D* (54) = 0.10, *p*= 0.2; female: *D* (63) =0.07, *p*= .20].

The descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of achievement (Table 5.30) were very similar to the descriptives discussed in Table 5.29. With regard to the variances between the two groups, the variances were assumed to be equal, *F* (1, 115) = 0.01, *ns*. The groups' scores were also normally distributed [male: *D* (54) = 0.08, *p*= .20; female: *D* (63) =0.09, *p*= .20].

TABLE 5.29 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of achievement (absolute differences)

	Male	Female
Mean	0.82	0.76
Variance	0.11	0.11
Std. Deviation	0.33	0.34
Minimum	0.00	0.00
Maximum	1.64	1.40
Range	1.64	1.40
Skewness	-0.03	-0.08
Kurtosis	0.10	-0.75

TABLE 5.30 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of achievement (absolute differences)

	Male	Female
Mean	0.79	0.79
Variance	0.11	0.11
Std. Deviation	0.34	0.32
Minimum	0.16	0.16
Maximum	1.73	1.42
Range	1.57	1.26
Skewness	0.19	0.00
Kurtosis	-0.08	-0.78

5.7.1.3 Stimulation

Table 5.31 gives an indication of the descriptive statistics which describe adolescents' accuracy in perceiving the importance that their mothers place on the value of stimulation. The statistics suggest that the mean scores of male and female adolescents were very similar (male $\bar{x}$ = 0.79, female $\bar{x}$ = 0.75). Furthermore, the measures of dispersion indicate that the variation within each group were relatively the same. This is also seen by the fact that the variances in the groups was seen as homogeneous, *F* (1, 115) = 0.10, *ns*. With regard to the

distribution of the scores in the two groups, female adolescents' scores deviated slightly from that of a normal distribution [male: *D* (54) = 0.12, *p*= .06; female: *D* (63) =0.11, *p*= .04].

TABLE 5.31 Descriptives for adolescents' accuracy in perceiving the importance that their mothers place on the value of stimulation (absolute differences)

	Male	Female
Mean	0.79	0.75
Variance	0.11	0.12
Std. Deviation	0.33	0.35
Minimum	0.09	0.00
Maximum	1.43	1.62
Range	1.34	1.62
Skewness	0.34	0.39
Kurtosis	-0.55	-0.34

TABLE 5.32 Descriptives for adolescents' accuracy in perceiving the importance that their fathers place on the value of stimulation (absolute differences)

	Male	Female
Mean	0.75	0.81
Variance	0.12	0.11
Std. Deviation	0.34	0.33
Minimum	0.09	0.16
Maximum	1.65	1.52
Range	1.56	1.37
Skewness	0.14	-0.05
Kurtosis	0.01	-0.80

Looking at adolescents' accuracy in perceiving the importance that their fathers place on the value of stimulation as a socialisation value, Table 5.32 indicates that male adolescents' mean score was slightly lower (higher accuracy) than female adolescents' mean score (male $\bar{x}$ = 0.75, female $\bar{x}$ = 0.81). Male adolescents' scores had a slightly broader range. However, Levene's test suggests that the variances in the scores between the two groups was equal, *F* (1, 115) = 0.01, *ns*. Both groups scores were normally distributed [male: *D* (54) = 0.08, *p*= .20; female: *D* (63) =0.09, *p*= .20].

5.7.2 Results of the assessment of hypothesis 4

5.7.2.1 Power

Table 5.33 illustrates the tests of the within-subjects (parent sex) effects on adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value. The results illustrate that the effect of parent sex did not influence adolescents accuracy in perceiving the importance that their parents place on the value of power, F (1, 115) = 0.64, *ns*. Similarly, the results indicate that the interaction between parent sex and adolescent sex did not significantly influence adolescents' accuracy in perceiving the importance that their parents place on the value of power, F (1, 115) = 0.60, *ns*.

TABLE 5.33 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of power

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.070	1	.070	.635	.427
	Greenhouse-Geisser	.070	1.000	.070	.635	.427
	Huynh-Feldt	.070	1.000	.070	.635	.427
	Lower-bound	.070	1.000	.070	.635	.427
Parent * Adolescent	Sphericity Assumed	.066	1	.066	.598	.441
	Greenhouse-Geisser	.066	1.000	.066	.598	.441
	Huynh-Feldt	.066	1.000	.066	.598	.441
	Lower-bound	.066	1.000	.066	.598	.441
Error(Parent)	Sphericity Assumed	12.665	115	.110		
	Greenhouse-Geisser	12.665	115.000	.110		
	Huynh-Feldt	12.665	115.000	.110		
	Lower-bound	12.665	115.000	.110		

Table 5.34 illustrates the tests of the between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value. The result indicates that the effect of adolescent sex significantly influenced adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of power, although the effect size was relatively small, F (1, 115) = 7.51, p= .007, η^2= 0.05.

TABLE 5.34 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of power

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[a]
Intercept	148.216	1	148.216	305.612	.000	.727	305.612	1.000
Adolescent	3.641	1	3.641	7.508	.007	.061	7.508	.776
Error	55.773	115	.485					

a. Computed using alpha = .05

Figure 5.2 illustrates the effect of adolescent sex on adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value. The figure illustrates that compared to female adolescents, male adolescents were more accurate in perceiving the level of importance that both their mothers and their fathers place

on the value of power (mothers: male adolescents $\bar{x}$ = 0.79, female $\bar{x}$ = 0.88; fathers: male $\bar{x}$ = 0.72, female $\bar{x}$ = 0.88). Although it seems as though male adolescents were more accurate in perceiving the importance that their fathers place on the value of power as a socialisation value, the non-significant interaction effect indicates that this was not the case.

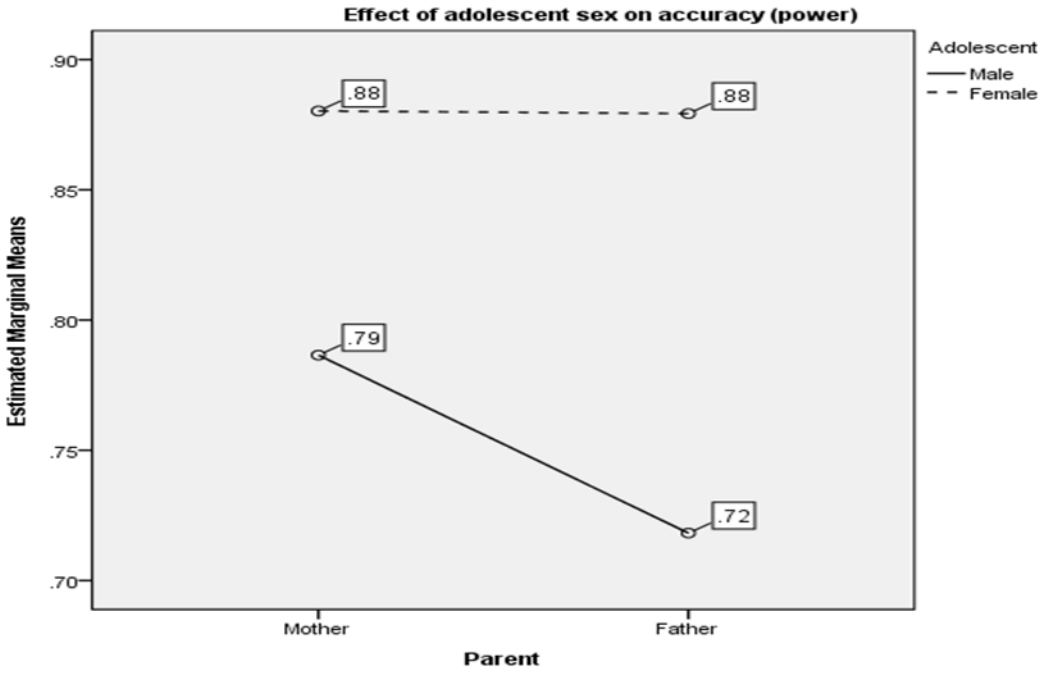

Figure 5.2 Difference in the mean scores which represent adolescents' accuracy in perceiving the importance of power as a parental socialisation value

5.7.2.2. Achievement

Table 5.35 illustrates the tests of the within-subjects (parent sex) effects on adolescents' accuracy in perceiving the importance that their parents place on the value of achievement as a socialisation value. The results suggest that parent sex did not significantly influence adolescents' accuracy in perceiving the importance that their parents place on the value of achievement, F (1, 115) = 0.00, *ns*. Similarly, the interaction (parent sex and adolescent sex) effect was also not significant, F (1, 115) = 0.64, *ns*.

Furthermore, the result from the tests of the between-subjects (adolescent sex) effects (Table 5.36) indicates that adolescent sex did not significantly influence adolescents' accuracy in perceiving the importance that their parents place on the value of achievement as a socialisation value, F (1, 115) = 0.26, *ns*.

TABLE 5.35 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of achievement

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	9.621E-005	1	9.621E-005	.001	.974
	Greenhouse-Geisser	9.621E-005	1.000	9.621E-005	.001	.974
	Huynh-Feldt	9.621E-005	1.000	9.621E-005	.001	.974
	Lower-bound	9.621E-005	1.000	9.621E-005	.001	.974
Parent * Adolescent	Sphericity Assumed	.059	1	.059	.645	.424
	Greenhouse-Geisser	.059	1.000	.059	.645	.424
	Huynh-Feldt	.059	1.000	.059	.645	.424
	Lower-bound	.059	1.000	.059	.645	.424
Error(Parent)	Sphericity Assumed	10.505	115	.091		
	Greenhouse-Geisser	10.505	115.000	.091		
	Huynh-Feldt	10.505	115.000	.091		
	Lower-bound	10.505	115.000	.091		

TABLE 5.36 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of achievement

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	145.367	1	145.367	1104.413	.000
Adolescent	.034	1	.034	.257	.613
Error	15.137	115	.132		

5.7.2.3 Stimulation

Table 5.37 illustrates the tests of the within-subjects (parent sex) effects on adolescents' accuracy in perceiving the importance that their parents place on the value of stimulation as a socialisation value. The results suggest that parent sex did not significantly influence adolescents' accuracy in perceiving the importance that their parents place on the value of stimulation, F (1, 115) = 0.03, *ns*. Similarly, the interaction (parent sex and adolescent sex) effect was also not significant, F (1, 115) = 1.22, *p*= .27.

Furthermore, the result from the tests of the between-subjects (adolescent sex) effects (Table 5.38) indicates that adolescent sex did not significantly influence adolescents' accuracy in perceiving the importance that their parents place on the value of stimulation as a socialisation value, F (1, 115) = 0.07, *ns*.

TABLE 5.37 Tests of within-subjects (parent sex) effects on adolescent's accuracy in perceiving the importance of stimulation

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.003	1	.003	.034	.855
	Greenhouse-Geisser	.003	1.000	.003	.034	.855
	Huynh-Feldt	.003	1.000	.003	.034	.855
	Lower-bound	.003	1.000	.003	.034	.855
Parent * Adolescent	Sphericity Assumed	.122	1	.122	1.216	.272
	Greenhouse-Geisser	.122	1.000	.122	1.216	.272
	Huynh-Feldt	.122	1.000	.122	1.216	.272
	Lower-bound	.122	1.000	.122	1.216	.272
Error(Parent)	Sphericity Assumed	11.548	115	.100		
	Greenhouse-Geisser	11.548	115.000	.100		
	Huynh-Feldt	11.548	115.000	.100		
	Lower-bound	11.548	115.000	.100		

TABLE 5.38 Tests of between-subjects (adolescent sex) effects on adolescents' accuracy in perceiving the importance of stimulation

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	139.558	1	139.558	1068.252	.000
Adolescent	.009	1	.009	.069	.793
Error	15.024	115	.131		

5.7.3 Hypothesis 4 – Conclusion

The fourth hypothesis was that the mean scores which represent male adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation will be significantly lower than the mean scores which represent female adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation. Based on the results of the analysis which assessed this hypothesis, it can be concluded that compared to female adolescents, male adolescents are more accurate in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value. However, based on the fact that hypothesis 4 assessed power, achievement, and stimulation, the null hypothesis – there is no significant difference between the mean scores which represent male and female

adolescents' accuracy in perceiving the importance that their mothers and fathers place on the value types of power, achievement, and stimulation – is accepted.

5.8 Specific acceptance

In this section, the results which relate to hypotheses 5 and 6 will be presented. The section commences with a discussion of the assumptions associated with the technique used to assess the hypotheses namely, the analysis of variance. Thereafter, the descriptive statistics which relate to the measures included in the analysis of each hypothesis are presented. Finally, the results of the mixed-design ANOVAs which assessed hypotheses 5 and 6 will be discussed.

5.9 Assessment of assumptions

As was discussed in section 5.5, the assumption which the researcher was most concerned about when assessing for sex-based differences in adolescents acceptance of what they perceive as the importance that their parents place on specific socialisation values (specific acceptance) was the assumption of normality. Like the measures of specific accuracy, the distributions of the measures of specific acceptance were also significantly skewed. Thus, as was discussed in section 5.5, the analyses were conducted with SQRT transformed specific acceptance measures.

5.10 Hypothesis 5

Hypothesis 5 states that the mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of benevolence, universalism, and security will be significantly lower than the mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of benevolence, universalism, and security (significantly lower = higher acceptance).

5.10.1. Descriptive statistics

5.10.1.1. Benevolence

Table 5.39 gives an indication of the descriptive statistics which describe adolescents' acceptance of what they perceive as the importance that their mothers place on the value of benevolence as a socialisation value. The descriptives indicate that male and female adolescents mean scores were very similar (male $\bar{x}$ = 0.58, female $\bar{x}$ = 0.61). The measures of dispersion were very similar and Levene's test indicates that the variances between the two groups were equal, F (1, 132) = 0.02, *ns*. Due to the level of skewness in the distribution of female adolescents' scores, the distribution of female adolescents' scores deviated from that of a normal distribution [male: D (64) = 0.08, p= .20; female: D (70) =0.13, p= .006].

TABLE 5.39 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of benevolence (absolute differences)

	Male	Female
Mean	0.58	0.61
Variance	0.09	0.10
Std. Deviation	0.31	0.31
Minimum	0.00	0.00
Maximum	1.27	1.47
Range	1.27	1.47
Skewness	0.08	0.42
Kurtosis	-0.67	-0.28

TABLE 5.40 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of benevolence (absolute differences)

	Male	Female
Mean	0.68	0.64
Variance	0.10	0.09
Std. Deviation	0.32	0.28
Minimum	0.00	0.00
Maximum	1.32	1.27
Range	1.32	1.27
Skewness	0.09	-0.10
Kurtosis	-0.33	-0.33

With regard to Table 5.40 which summarises the descriptive statistics which describe adolescents' acceptance of what they perceive as the importance that their fathers place on the value of benevolence as a socialisation value, the groups mean scores were similar (male $\bar{x}$ = 0.68, female $\bar{x}$ = 0.64). The variances between groups was assumed to be equal, F (1, 132) = 0.88, *ns*. Looking at the levels of skewness and kurtosis in the groups distributions, male and female adolescents scores were normally distributed [male: D (64) = 0.09, p= .20; female: D (70) =0.08, p= .20].

5.10.1.2 Universalism

TABLE 5.41 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of universalism (absolute differences)

	Male	Female
Mean	0.54	0.63
Variance	0.09	0.09
Std. Deviation	0.31	0.30
Minimum	0.00	0.00
Maximum	1.49	1.43
Range	1.49	1.43
Skewness	0.66	0.23
Kurtosis	0.41	-0.13

TABLE 5.42 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of universalism (absolute differences)

	Male	Female
Mean	0.60	0.60
Variance	0.14	0.10
Std. Deviation	0.38	0.32
Minimum	0.00	0.00
Maximum	1.54	1.28
Range	1.54	1.28
Skewness	0.51	0.11
Kurtosis	-0.62	-0.85

Table 5.41 gives an indication of the descriptive statistics which describe adolescents' acceptance of what they perceive as the importance that their mothers place on the value of universalism as a socialisation value. Looking at the mean scores of the groups, male adolescents' mean score was lower (higher acceptance) than female adolescents mean score (male $\bar{x}$ = 0.54, female $\bar{x}$ = 0.63). With regard to the measures of dispersion, both groups scores varied equally, F (1, 132) = 0.12, *ns*. Both groups' scores were also normally distributed [male: D (64) = 0.10, p= .10; female: D (70) =0.07, p= .20].

Looking at adolescents' acceptance of what they perceive as the importance that their fathers place on the value of universalism as a socialisation value (Table 5.42), both groups' mean scores were equal (male $\bar{x}$ = 0.60, female $\bar{x}$ = 0.60). Although male adolescents' scores were more dispersed than female adolescents scores, the variation in the groups scores was assumed to be equal, F (1, 132) = 1.79, p= .18. Based on the higher level of skewness and kurtosis in the distribution of male adolescents' scores, the distribution of their scores deviated from that of a normal distribution [male: D (64) = 0.12, p= .024; female: D (70) =0.09, p= .20].

5.10.1.3. Security

Table 5.43 gives an indication of the descriptive statistics which describe adolescents' acceptance of what they perceive as the importance that their mothers place on the value of security as a socialisation value. Looking at the mean scores of the groups, male and female

adolescents' mean scores were similar (male $\bar{x}$ = 0.65, female $\bar{x}$ = 0.63). The amount of variation in the groups' scores was also similar and was also assumed to be equal, *F* (1, 132) = 1.62, *p*= .20. The distribution of the groups scores indicate that male adolescents scores were more clustered – pointy or leptokurtic – whereas female adolescents scores were more positively skewed. Despite some skewness and kurtosis, both groups scores were normally distributed [male: *D* (64) = 0.1, *p*= .17; female: *D* (70) =0.08, *p*= .20].

TABLE 5.43 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of security (absolute differences)

	Male	Female
Mean	0.65	0.63
Variance	0.08	0.11
Std. Deviation	0.29	0.33
Minimum	0.00	0.00
Maximum	1.52	1.46
Range	1.52	1.46
Skewness	0.17	0.47
Kurtosis	0.67	-0.20

TABLE 5.44 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of security (absolute differences)

	Male	Female
Mean	0.60	0.61
Variance	0.09	0.09
Std. Deviation	0.30	0.30
Minimum	0.00	0.00
Maximum	1.51	1.27
Range	1.51	1.27
Skewness	0.37	0.20
Kurtosis	0.40	-0.57

Table 5.44 indicates that with regard to adolescents acceptance of what they perceive as the importance that their fathers place on the value of security as a socialisation value, both groups mean scores (acceptance) were the same (male $\bar{x}$ = 0.60, female $\bar{x}$ = 0.61). Male adolescents' scores had a wider range than female adolescents' scores. Despite this, the variances in both groups was assumed to be equal, *F* (1, 132) = 0.90, *ns*. Despite some differences in levels of kurtosis, both groups scores were normally distributed [male: *D* (64) = 0.06, *p*= .20; female: *D* (70) =0.08, *p*= .20].

5.10.2 Results of the assessment of hypothesis 5

5.10.2.1 Benevolence

Table 5.45 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of benevolence as a socialisation value. The results indicate that ignoring adolescent sex, parent sex significantly influenced adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of benevolence as a socialisation value, although the effect size was small F (1, 132) = 5.98, p= .016, η^2= 0.01. The result suggests that adolescents were more likely to accept the level of importance that their mothers place on the value of benevolence as a socialisation value (mother $\bar{x}$ = 0.60, father $\bar{x}$ = 0.66). This parent effect also helps to explain why the interaction between parent sex and adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of benevolence as a socialisation value, F (1, 132) = 1.72, p= .19.

TABLE 5.45 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of benevolence as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.239	1	.239	5.979	.016
	Greenhouse-Geisser	.239	1.000	.239	5.979	.016
	Huynh-Feldt	.239	1.000	.239	5.979	.016
	Lower-bound	.239	1.000	.239	5.979	.016
Parent * Adolescent	Sphericity Assumed	.069	1	.069	1.734	.190
	Greenhouse-Geisser	.069	1.000	.069	1.734	.190
	Huynh-Feldt	.069	1.000	.069	1.734	.190
	Lower-bound	.069	1.000	.069	1.734	.190
Error(Parent)	Sphericity Assumed	5.278	132	.040		
	Greenhouse-Geisser	5.278	132.000	.040		
	Huynh-Feldt	5.278	132.000	.040		
	Lower-bound	5.278	132.000	.040		

Table 5.46 illustrates the effect of adolescent sex on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of benevolence.

The result suggests that adolescent sex did not significantly affect adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of benevolence, F (1, 132) = 0.003, *ns*.

TABLE 5.46 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of benevolence as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	106.070	1	106.070	720.883	.000
Adolescent	.000	1	.000	.003	.958
Error	19.422	132	.147		

5.10.2.2 Universalism

Table 5.47 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of universalism as a socialisation value. The results suggest that parent sex did not significantly affect adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of universalism as a socialisation value, F (1, 132) = 0.16, *ns*. The results also suggest that the interaction between parent sex and adolescent sex did not influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of universalism as a socialisation value, F (1, 132) = 2.51, *p*= .11. Finally, the result from Table 5.48 suggests that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of universalism as a socialisation value, F (1, 132) = 0.99, *ns*.

TABLE 5.47 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of universalism as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.009	1	.009	.160	.690
	Greenhouse-Geisser	.009	1.000	.009	.160	.690
	Huynh-Feldt	.009	1.000	.009	.160	.690
	Lower-bound	.009	1.000	.009	.160	.690
Parent * Adolescent	Sphericity Assumed	.137	1	.137	2.514	.115
	Greenhouse-Geisser	.137	1.000	.137	2.514	.115
	Huynh-Feldt	.137	1.000	.137	2.514	.115
	Lower-bound	.137	1.000	.137	2.514	.115
Error(Parent)	Sphericity Assumed	7.201	132	.055		
	Greenhouse-Geisser	7.201	132.000	.055		
	Huynh-Feldt	7.201	132.000	.055		
	Lower-bound	7.201	132.000	.055		

TABLE 5.48 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of universalism as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	94.196	1	94.196	589.111	.000
Adolescent	.158	1	.158	.988	.322
Error	21.106	132	.160		

5.10.2.3 Security

Table 5.49 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of security as a socialisation value. The results suggest that parent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of security as a socialisation value, F (1, 132) = 1.17, *p*= .28. The results also suggest that the interaction between parent sex and adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of security as a socialisation value, F (1, 132) = 0.37, *ns*. Finally, Table 5.50 indicates that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that

their mothers and fathers place on the value of security as a socialisation value, F (1, 132) = 0.02, *ns*.

TABLE 5.49 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of security as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.051	1	.051	1.173	.281
	Greenhouse-Geisser	.051	1.000	.051	1.173	.281
	Huynh-Feldt	.051	1.000	.051	1.173	.281
	Lower-bound	.051	1.000	.051	1.173	.281
Parent * Adolescent	Sphericity Assumed	.016	1	.016	.371	.543
	Greenhouse-Geisser	.016	1.000	.016	.371	.543
	Huynh-Feldt	.016	1.000	.016	.371	.543
	Lower-bound	.016	1.000	.016	.371	.543
Error(Parent)	Sphericity Assumed	5.730	132	.043		
	Greenhouse-Geisser	5.730	132.000	.043		
	Huynh-Feldt	5.730	132.000	.043		
	Lower-bound	5.730	132.000	.043		

TABLE 5.50 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of security as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	104.150	1	104.150	711.449	.000
Adolescent	.003	1	.003	.024	.878
Error	19.324	132	.146		

5.10.3 Hypothesis 5 – Conclusion

In the analysis of hypothesis 5, no support was found the hypothesis that there are sex-based differences in adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the values of benevolence, universalism, and security as socialisation values. Thus, the null hypothesis which states that there are no significant differences between the mean scores which represent male and female adolescents' acceptance of the importance that their mothers and fathers place on the value types of benevolence, universalism, and security is accepted.

5.11 Hypothesis 6

The final hypothesis is that the mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation will be significantly lower than the mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation.

5.11.1 Descriptive statistics

5.11.1.1 Power

Table 5.51 illustrates the descriptive statistics which are associated with adolescents' acceptance of what they perceive as the importance that their mothers place on the value of power as a socialisation value. With regard to the mean scores of the two groups, the mean scores were almost identical (male $\bar{x}$ = 0.79, female $\bar{x}$ = 0.80). The measures of dispersion indicate that the variation in the groups scores were equal – which was seen in Levene's test of homogeneity of variance, F (1, 132) = 0.14, *ns*. The distributions of both groups' scores were also normally distributed [male: D (64) = 0.06, p= .20; female: D (70) =0.06, p= .20].

TABLE 5.51 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of power (absolute differences)

	Male	Female
Mean	0.79	0.80
Variance	0.15	0.15
Std. Deviation	0.39	0.39
Minimum	0.00	0.00
Maximum	1.62	1.70
Range	1.62	1.70
Skewness	-0.13	0.03
Kurtosis	-0.55	-0.69

TABLE 5.52 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of power (absolute differences)

	Male	Female
Mean	0.81	0.81
Variance	0.15	0.16
Std. Deviation	0.39	0.39
Minimum	0.00	0.00
Maximum	1.69	1.83
Range	1.69	1.83
Skewness	0.12	-0.16
Kurtosis	-0.65	-0.02

With regard to adolescents' acceptance of what they perceive as the importance that their fathers place on the value of power as a socialisation value, Table 5.52 indicates that the groups' mean scores were also identical (male $\bar{x}$ = 0.81, female $\bar{x}$ = 0.81). The variances in

the groups scores were equal, F (1, 132) = 0.30, *ns*. Finally, both groups' scores were normally distributed [male: D (64) = 0.11, p= .07; female: D (70) =0.10, p= .09].

5.11.1.2 Achievement

Table 5.53 illustrates the descriptive statistics which are associated with adolescents' acceptance of what they perceive as the importance that their mothers place on the value of achievement as a socialisation value. Looking at the groups' mean scores, the mean scores suggest that compared to female adolescents, male adolescents had a lower mean score (higher acceptance) of what they perceive as the importance that their mothers place on the value of achievement (male $\bar{x}$ = 0.63, female $\bar{x}$ = 0.74). With regard to the variance in the two groups' scores, the variances were assumed to be equal, F (1, 132) = 0.79, *ns*. The distribution of the two groups' scores were also normally distributed [male: D (64) = 0.07, p= .20; female: D (70) =0.07, p= .20].

TABLE 5.53 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of achievement (absolute differences)

	Male	Female
Mean	0.63	0.74
Variance	0.12	0.10
Std. Deviation	0.34	0.31
Minimum	0.00	0.00
Maximum	1.53	1.50
Range	1.53	1.50
Skewness	0.16	0.10
Kurtosis	-0.44	-0.02

TABLE 5.54 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of achievement (absolute differences)

	Male	Female
Mean	0.71	0.64
Variance	0.12	0.12
Std. Deviation	0.35	0.34
Minimum	0.00	0.00
Maximum	1.37	1.33
Range	1.37	1.33
Skewness	-0.13	0.01
Kurtosis	-0.84	-0.68

With regard to adolescents' acceptance of what they perceive as the importance that their fathers place on the value of achievement as a socialisation value, Table 5.54 indicates that female adolescents' mean score was slightly lower (higher acceptance) than male adolescents' mean score (male $\bar{x}$ = 0.71, female $\bar{x}$ = 0.64). The two groups scores were also equally dispersed, F (1, 132) = 0.29, *ns*. The distributions of the two groups' scores were also normally distributed [male: D (64) = 0.10, p= .20; female: D (70) =0.05, p= .20].

5.11.1.3. Stimulation

Table 5.55 illustrates the descriptive statistics which are associated with adolescents' acceptance of what they perceive as the importance that their mothers place on the value of stimulation as a socialisation value. An inspection of the mean scores indicates that compared to female adolescents, male adolescents had a slightly lower mean score (higher acceptance) of what they perceive as the importance that their mothers place on the value of stimulation as a socialisation value (male $\bar{x}$ = 0.73, female $\bar{x}$ = 0.78). Male adolescents' scores had a slightly broader range. However, the variances in the group were assumed to be equal, F (1, 132) = 0.06, *ns*. Both groups' scores were normally distributed [male: D (64) = 0.07, p= .20; female: D (70) =0.09, p= .20].

TABLE 5.55 Descriptives for adolescents' acceptance of what they perceive as the importance that their mothers place on the value of stimulation (absolute differences)

	Male	Female
Mean	0.73	0.78
Variance	0.16	0.15
Std. Deviation	0.40	0.40
Minimum	0.00	0.00
Maximum	1.91	1.59
Range	1.91	1.59
Skewness	0.38	0.03
Kurtosis	-0.18	-0.75

TABLE 5.56 Descriptives for adolescents' acceptance of what they perceive as the importance that their fathers place on the value of stimulation (absolute differences)

	Male	Female
Mean	0.77	0.72
Variance	0.13	0.11
Std. Deviation	0.36	0.33
Minimum	0.00	0.00
Maximum	1.77	1.49
Range	1.77	1.49
Skewness	0.19	-0.03
Kurtosis	0.06	-0.19

With regard to adolescents' acceptance of what they perceive as the importance that their fathers place on the value of stimulation as a socialisation value, Table 5.56 indicates that female adolescents' mean score was slightly lower (higher acceptance) than male adolescents' mean score (male $\bar{x}$ = 0.77, female $\bar{x}$ = 0.72). Male adolescents' scores had a slightly broader range. The variation in the groups scores were assumed to be equal, F (1, 132) = 0.17, *ns*. There was very little skewness or kurtosis in the distributions of the groups scores and hence the distributions were normally distributed [male: D (64) = 0.07, p= .20; female: D (70) =0.06, p= .20].

5.11.2 Results of the assessment of hypothesis 6

5.11.2.1 Power

Table 5.57 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of power as a socialisation value. The results indicate that parent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of power as a socialisation value, F (1, 132) = 0.24, *ns*. Likewise, the interaction between parent sex and adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of power as a socialisation value, F (1, 132) = 0.02, *ns*.

TABLE 5.57 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of power as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.021	1	.021	.241	.624
	Greenhouse-Geisser	.021	1.000	.021	.241	.624
	Huynh-Feldt	.021	1.000	.021	.241	.624
	Lower-bound	.021	1.000	.021	.241	.624
Parent * Adolescent	Sphericity Assumed	.002	1	.002	.018	.893
	Greenhouse-Geisser	.002	1.000	.002	.018	.893
	Huynh-Feldt	.002	1.000	.002	.018	.893
	Lower-bound	.002	1.000	.002	.018	.893
Error(Parent)	Sphericity Assumed	11.564	132	.088		
	Greenhouse-Geisser	11.564	132.000	.088		
	Huynh-Feldt	11.564	132.000	.088		
	Lower-bound	11.564	132.000	.088		

The result from Table 5.58 also indicates that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of power as a socialisation value, F (1, 132) = 0.01, *ns*.

TABLE 5.58 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of power as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	173.389	1	173.389	784.101	.000
Adolescent	.003	1	.003	.011	.915
Error	29.189	132	.221		

5.11.2.2 Achievement

Table 5.59 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement as a socialisation value. The results indicate that parent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement, F (1, 132) = 0.06, *ns*. However the results did indicate that the interaction between parent sex and adolescent sex significantly influenced adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement, although the effect size was small, F (1, 132) = 6.50, p= .012, η^2= 0.02. This interaction effect will be discussed after the discussion of the between-subjects effects.

TABLE 5.59 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of achievement as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.004	1	.004	.061	.805
	Greenhouse-Geisser	.004	1.000	.004	.061	.805
	Huynh-Feldt	.004	1.000	.004	.061	.805
	Lower-bound	.004	1.000	.004	.061	.805
Parent * Adolescent	Sphericity Assumed	.463	1	.463	6.505	.012
	Greenhouse-Geisser	.463	1.000	.463	6.505	.012
	Huynh-Feldt	.463	1.000	.463	6.505	.012
	Lower-bound	.463	1.000	.463	6.505	.012
Error(Parent)	Sphericity Assumed	9.395	132	.071		
	Greenhouse-Geisser	9.395	132.000	.071		
	Huynh-Feldt	9.395	132.000	.071		
	Lower-bound	9.395	132.000	.071		

Table 5.60 indicates the tests of the between-subjects (adolescent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement as a socialisation value. The result indicates that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement, F (1, 132) = 0.20, *ns*.

TABLE 5.60 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of achievement as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	123.603	1	123.603	799.227	.000
Adolescent	.031	1	.031	.204	.653
Error	20.414	132	.155		

5.11.2.3 The parent sex and adolescent sex interaction effect for achievement

Figure 5.3 illustrates how the interaction between parent sex and adolescent sex influences adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement as a socialisation value. The figure illustrates that compared to female adolescents, male adolescents had a greater level of acceptance of what they perceive as the importance that their mothers place on the value of achievement as a socialisation value (male $\bar{x}$ = 0.63, female $\bar{x}$ = 0.74). In contrast, compared to male adolescents, female adolescents had a greater level of acceptance of what they perceive as the importance that their fathers place on the value of achievement as a socialisation value (male $\bar{x}$ = 0.71, female $\bar{x}$ = 0.64).

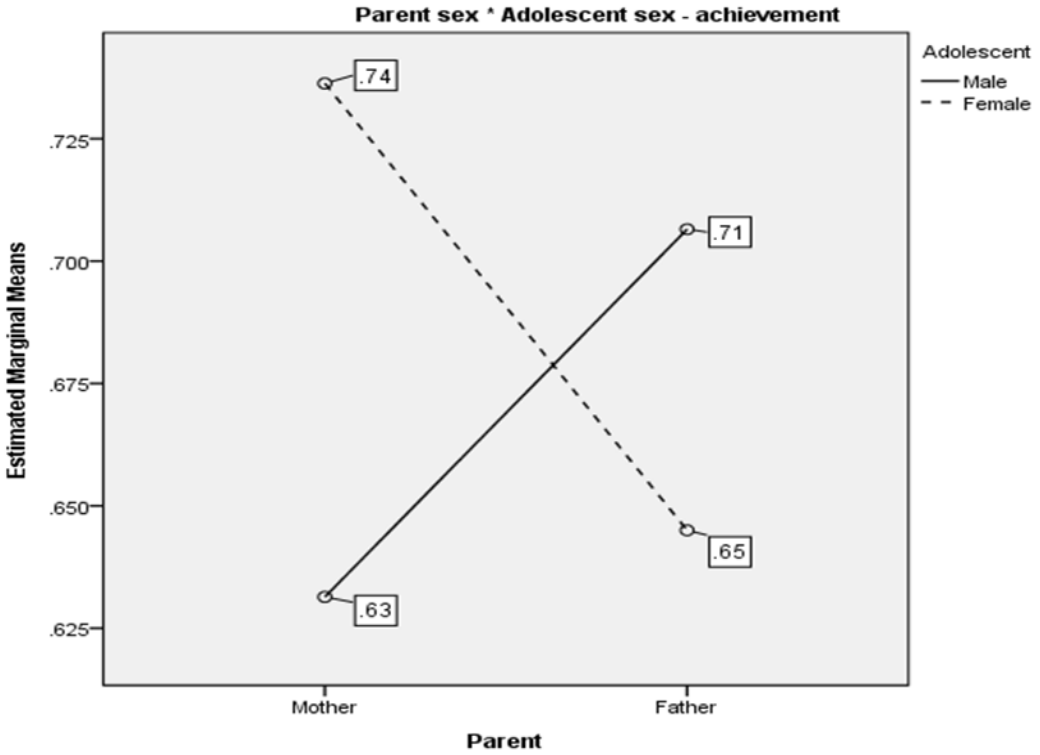

Figure 5.3 The parent sex and adolescent sex interaction effect for adolescents acceptance of what they perceive as the importance that their mothers and fathers place on the value of achievement

5.11.2.4 Stimulation

Table 5.61 illustrates the tests of the within-subjects (parent sex) effects on adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of stimulation as a socialisation value. The results indicate that parent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of stimulation as a socialisation value, F (1, 132) = 0.11, *ns*. Similarly, the interaction between parent sex and adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of stimulation, F (1, 132) = 1.94, p= .17. The tests of the between-subjects (adolescent sex) effects (Table 5.62) also indicates that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value of stimulation as a socialisation value, F (1, 132) = 0.001, *ns*.

TABLE 5.61 Tests of within-subjects (parent sex) effects on adolescent's acceptance of what they perceive as the importance their parents place on the value of stimulation as a socialisation value

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Parent	Sphericity Assumed	.009	1	.009	.113	.738
	Greenhouse-Geisser	.009	1.000	.009	.113	.738
	Huynh-Feldt	.009	1.000	.009	.113	.738
	Lower-bound	.009	1.000	.009	.113	.738
Parent * Adolescent	Sphericity Assumed	.151	1	.151	1.945	.165
	Greenhouse-Geisser	.151	1.000	.151	1.945	.165
	Huynh-Feldt	.151	1.000	.151	1.945	.165
	Lower-bound	.151	1.000	.151	1.945	.165
Error(Parent)	Sphericity Assumed	10.216	132	.077		
	Greenhouse-Geisser	10.216	132.000	.077		
	Huynh-Feldt	10.216	132.000	.077		
	Lower-bound	10.216	132.000	.077		

TABLE 5.62 Tests of between-subjects (adolescent sex) effects on adolescents' acceptance of the importance that their parents place on the value of stimulation as a socialisation value

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	149.550	1	149.550	748.356	.000
Adolescent	.000	1	.000	.001	.977
Error	26.379	132	.200		

5.11.13 Hypothesis 6 – Conclusion

The final hypothesis was that the mean scores which represent male adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation would be significantly lower than the mean scores which represent female adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation. Based on the results of the analysis, no support could be found for this hypothesis. Thus, the null hypothesis which states that there are no significant differences between the mean scores which represent male and female adolescents' acceptance of what

they perceive as the importance that their mothers and fathers place on the value types of power, achievement, and stimulation is accepted.

5.12 Discussion of the results

In this chapter, the hypotheses which maintained that there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values were examined. By and large, there was very little support for the six research hypotheses. Instead, the overall results suggest that the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values is even more complicated than the researcher initially assumed. In the next section, the discussion of the results will be divided into three sub-sections namely, adolescent sex effects, parent sex effects, and adolescent sex–parent sex interaction effects.

5.12.1 Adolescent sex effects

Essentially, the main focus of the research hypotheses was the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of what they identify as the values that their parents view as important for their lives. In an attempt to specify on which value constructs these sex-based differences would occur, the findings of sex-based differences in value priorities, social role theory, evolutionary psychology, and the socialisation of gender literature were deemed to offer the best guidelines for the hypothesis development.

Based on the results of the analysis, there was insufficient evidence to support the research hypotheses that adolescent sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values. The only finding that offered some support for the research hypotheses was the finding of sex-based differences in adolescents' accuracy in perceiving the importance that their mothers and fathers attributed to the value of power as a socialisation value.

Social role theory and evolutionary psychology are thought to provide a possible explanation of this result. Social role theory maintains that men frequently fulfil roles which offer them with more opportunities to express power and dominance. This could translate into male

adolescents being offered more opportunities to exercise self-assertion and dominance in their interactions with other people. In other words, they have a greater understanding of what others expect of them in their expressions of self-assertion and dominance.

In contrast, evolutionary psychology would maintain that, in their preparation for the pressures associated with sexual selection, male adolescents become more aware of the importance of power as a value which will improve their future reproductive success. Research on the fluctuating flexibility of gender role stereotypes during adolescence offers some support for the claim that male adolescents' greater accuracy in perceiving the importance that their mothers and fathers place on the value of power as a socialisation value may be tied to male adolescents' preparation for adulthood (Eccles, 1987; Katz & Ksansnak, 1994).

Furthermore, it is believed that both theories would suggest that, based on their sex, male adolescents receive relatively more messages which encourage them to express the values associated with power (dominance, leadership, and control over resources). The contention is that the frequency of these messages, together with their perceived relevance for males, could account for why male adolescents were more accurate in perceiving the importance that their parents attributed to the value of power as a socialisation value.

Although this finding does indicate that there are sex-based differences in adolescents' accuracy in perceiving parental socialisation values, only one confirmation of the effect of adolescent sex on adolescents' accuracy and acceptance could be found. It was believed that these results cast doubt on the ability of the theories and the findings of sex-based differences in value priorities to offer some understanding of the specific value constructs on which these sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. However, the results suggest that an understanding of the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values requires the additional consideration of the effects of parent sex and the interaction between parent sex and adolescent sex.

5.12.2 Parent sex effects

In terms of the results of the assessment of hypothesis 3, the influence of parent sex on adolescents' accuracy in perceiving the level of importance that their mothers and fathers placed on the values of universalism and security illustrates the point that the focus on the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values was clearly too narrow. The results of the assessment of hypothesis 3 clearly indicate the need to focus on how parent sex influences adolescents' accuracy in perceiving their parents' socialisation values.

In the assessment of hypothesis 3, it was found that adolescents were relatively more accurate in perceiving the level of importance that their mothers place on the value of universalism as a socialisation value. The results also indicated that adolescents were more accurate at perceiving the level of importance that their fathers attributed to the value of security as a socialisation value. In an attempt to understand these results, it is proposed that both parents' value priorities and the values that they view as important for their children's lives (socialisation values) influence the extent to which they discuss different values with their children. It is possible that mothers are more likely to discuss or promote the importance of universalism with their children, which results in adolescents' greater accuracy in perceiving the level of importance that their mothers place on the value of universalism. The findings of Hastings, McShane, Parker, and Ladha's (2007) study on prosocial behaviour would support the view that mothers make a greater contribution than do fathers to their children's accuracy in perceiving the importance of universalism – which would include displays of prosocial behaviour. Furthermore, fathers are believed to be more likely to discuss the importance of security with their children In the light of the values expressed within the value construct of security, particularly the questions relating to one's safety within the country and the state of the government, the researcher believes that fathers are more likely to discuss 'political' issues with their children. This could explain why adolescents were more accurate in perceiving the level of importance that their fathers placed on the value of security. The researcher realises that this explanation does have its problems, because it does not explain why there were no parent effects for other socialisation values, such as benevolence, stimulation, and power.

The assessment of hypothesis 5, indicated that adolescents had higher levels of acceptance of what they perceived as the importance their mothers placed on the value of benevolence as a socialisation value. In an attempt to understand this result, the researcher analysed the mean scores which represent what male and female adolescents perceived as the level of importance their mothers and fathers placed on the value of benevolence. The results suggest that both male and female adolescents perceived that their mothers attributed a higher level of importance to the value of benevolence and that their fathers placed less importance on the value of benevolence (male adolescents: mother $\bar{x}$: 0.37, father $\bar{x}$: 0.12; female: mother $\bar{x}$: 0.32, father $\bar{x}$: 0.14). Thus, it seems as though the level of importance that adolescents personally placed on the value of benevolence is more aligned with the higher level of emphasis they perceived their mothers placed on the value of benevolence as a socialisation value.

On the whole, the researcher was surprised by the extent of the parent sex effects, mainly because of the belief that adolescent sex acted as a filter through which adolescents sifted both the messages they paid attention to and their interpretation of the relevance of these messages. It was not expected to find that adolescents would be more accurate in perceiving or have greater acceptance of their opposite-sex parent's socialisation values. The complexity of the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values was most clearly illustrated by the parent sex and adolescent sex interaction effects.

5.12.3 Parent sex and adolescent sex interaction effects

In the light of the significant interaction effects from the results, two interactions effects were found to be significant. Firstly, with regard to hypothesis 2, the results illustrated that adolescents did not differ in their overall acceptance of their mothers' socialisation values. However, compared to male adolescents, female adolescents had higher levels of overall acceptance of their fathers' socialisation values. Secondly, the finding for hypothesis 6 was that male adolescents were more accepting of what they perceived as the importance that their mothers attributed to the value of achievement whereas female adolescents were more accepting of what they perceived as the importance that their fathers placed on the value of

achievement as a socialisation value. It is believed that it is easier to make sense of these results when they are discussed in conjunction with the overall results.

5.13. Overall discussion of the results

The results of this study have a number of important implications. Firstly, and most importantly, the results suggest that the focus on the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values was too narrow. The results suggest that the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values is even more complicated than was initially assumed. Both adolescent sex and parent sex influence adolescents' accuracy in perceiving and acceptance of parental socialisation values. However, the parent sex and interaction effects illustrate that there is no clear pattern as to how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values. In agreement with Knafo and Schwartz's (2009) research on how the gender composition of the parent-child dyad affects adolescents' accuracy in perceiving and acceptance of parental socialisation values, this study's results suggest that the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values is value-specific.

Secondly, because the focus on adolescent sex effects on adolescents' accuracy in perceiving and acceptance of parental socialisation values was too narrow, insufficient attention was paid to the literature which would have proposed that parent sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values. Early theories of identification (e.g. Freud, 1947; Kohlberg, 1966; Parsons, 1968) suggest that value transmission from parent to child follows a same-sex lineage: in other words, values are transmitted from father to son and mother to daughter. The logic of these theories is aligned with the hypotheses since the theories suggest that, because adolescents tend to look to or identify with their same-sex parent as a model, they may attend to this parent's values messages more readily and thus perceive the parent's values more accurately. Since adolescents identify with the same-sex parent, they are also more likely to accept this parent's values.

Despite the intuitive appeal of the identification theories' logic, the results from this study suggest that the transmission of values from parent to child does not strictly follow a same-sex lineage. This was clearly illustrated by male adolescents' greater accuracy in perceiving the importance that their mothers placed on the value of universalism, male adolescents' greater acceptance of what they perceived as the emphasis their mothers placed on the value of benevolence, and female adolescents' greater acceptance of what they perceived as the importance that their fathers attributed to the value of achievement as a socialisation value. However, the results do not discredit these theories. Rather, in concurrence with Troll and Bengtson's (1979, p.145) comments, the results suggest that there are "no consistent sex differences either in maternal versus paternal influence, same- versus opposite-sex lineage, or son versus daughter effects." The results suggest that adolescents do not simply identify with their same-sex parent for all values but that adolescents may identify with different parents for different values.

Thirdly, in their extended discussion of the theories of identification, Troll and Bengtson (1979) state that the theories suggest that the more values are sex-differentiated, the more one would expect same-sex linkages in the transmission of values. This notion is coherent with the researcher's view that sex-based differences in adolescents' accuracy in perceiving and acceptance of socialisation values were likely to be found in the values that were highly sex differentiated – as indicated by the findings of sex-based differences in value priorities. The view is also consistent with the socialisation of gender literature. However, the results suggest that the belief that sex-based differences in value priorities could be used as a guide to understanding sex-based differences in adolescents' accuracy at perceiving and acceptance of parental socialisation values is not as transferrable as was initially assumed. In other words, although there are sex-based differences in value priorities, this does not mean that these differences influence adolescents' accuracy in perceiving and acceptance of parental socialisation values. The results also suggest that adolescents do not necessarily selectively attend to the value messages which they may deem as more relevant to the members of their sex.

Fourthly, the study assumed that social role theory, evolutionary psychology, and the socialisation of gender literature offered some insight into the reasons why female adolescents may have higher overall accuracy in perceiving and acceptance of parental

socialisation values. Essentially, the essence of the argument was that females are encouraged to attend to the needs of others. In so doing, they are more attuned to the needs of others and have greater accuracy in perceiving what others expect from them. In contrast, males are encouraged to develop autonomy and make their own choices and thus males are less inclined to attend to other people's messages and also less likely to accept their messages. This argument reflects what Troll and Bengtson (1979, p. 144) characterised as a common assumption of the socialisation literature namely that "daughters are more susceptible to parental influence than sons."

Based on the results of the study, there was no clear evidence to suggest that daughters are more susceptible to parental influence than sons or to suggest that daughters are more attentive to their parents' expectations. Furthermore, the interaction effects found in the analyses of hypotheses 1 and 2 challenged previous findings of female adolescents' higher overall accuracy in perceiving and acceptance of parental socialisation values (accuracy: Knafo & Schwartz, 2003; acceptance: Barni et al., 2011).

Fifthly, the results of the study indicate that, by taking into account the analysis from the level of adolescents' overall accuracy in perceiving and acceptance to the level of adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, a completely new picture of how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values has emerged. The researcher believes that, although it might be more difficult to explain the effect of sex on adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, these explanations may yield more promising results than explanations of the effect of sex on adolescents' overall accuracy in perceiving and acceptance of parental socialisation values.

Finally, the results suggest that, since the study's view was too narrow, a broader view of how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values could suggest that the variables of parent sex and adolescent sex should be afforded more importance in the two steps in Grusec and Goodnow's (1994) model.

CHAPTER 6

CONCLUSION

6.1 Introduction

The final chapter of this study summarises what the research focused on: the nature of the study's main argument, how the argument was substantiated, what was discovered, and the pre-existing views that were challenged by the research. The chapter also includes a discussion of the limitations of the study and concludes with a discussion of the directions for future research.

6.2 Conclusion

This study focused on whether there are sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values or, stated differently, it focused on the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values. Chapter two commenced with a discussion of the socialisation literature which contextualised Grusec and Goodnow's (1994) model of discipline effectiveness. Based on the results of the studies done by Knafo and Schwartz (2003) and Barni et al. (2011), it was concluded that the model overlooked the important influence that sex may have on adolescents' accuracy in perceiving and acceptance of parental socialisation values. Furthermore, the study also proposed that, although Knafo and Schwartz (2003) and Barni et al. (2011) found sex-based differences in adolescents' overall accuracy in perceiving and acceptance of parental socialisation values, they did not look into the possibility of finding sex-based differences in adolescents' accuracy in perceiving and acceptance of specific parental socialisation values.

Before presenting the literature which supported the belief that adolescent sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values, the focus turned to clarifying the conceptual disarray surrounding the concept of values. After clarifying this conceptual disarray, the argument proposed that the findings by Schwartz and Rubel (2005) and Schwartz and Rubel-Lifchitz (2009) of sex-based differences in value

priorities offered a potential guideline for the development of hypotheses as to the specific value constructs on which these sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may have occurred. After using social role theory and evolutionary psychology to explain the potential origins of these sex-based differences in value priorities, an attempt was made to illustrate how the theories could also be used to explain the potential origin of sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. Coupled with these theories, was the belief that the findings of sex-based differences in value priorities and the literature on the socialisation of gender allowed for more detailed hypotheses about the specific value constructs on which these sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur.

In relation to the above-mentioned theories and literature, Knafo and Schwartz's (2003) finding was followed by hypothesising that, compared to male adolescents, female adolescents would have higher overall accuracy in perceiving their mothers' and their fathers' parental socialisation values. Based on Barni et al.'s (2011) findings, it was hypothesised that, when compared to male adolescents, female adolescents would have higher overall acceptance of what they perceived as their mothers' and fathers' parental socialisation values. The theories and literature also helped to set hypotheses regarding the specific value constructs on which the researcher expected to find sex-based differences in adolescents' accuracy at perceiving and acceptance of specific parental socialisation values. It was hypothesized that, when compared to male adolescents, female adolescents would have higher accuracy in perceiving and acceptance of what they perceived as the importance that their mothers and fathers placed on the values of benevolence, universalism, and security. It was also hypothesised that, compared to female adolescents, male adolescents would have higher accuracy in perceiving and acceptance of what they perceived as the importance that their mothers and fathers attributed to the values of power, achievement, and stimulation.

In order assess these hypotheses, the researcher made use of a quantitative, inferential, non-experimental research design. In terms of the way in which the measures of accuracy and acceptance were constructed, both adolescents and their parents were required to participate in the study. A total of 400 participants completed the Portrait Values Questionnaire (PVQ-IV). Once the measures of accuracy and acceptance were developed, the sample size used to

assess sex-based differences in adolescents' overall and specific accuracy was 117 'complete' families, whereas the sample size used to assess sex-based differences in adolescents' overall and specific acceptance was 134 adolescents. In order to assess each hypothesis, the study made use of separate mixed-design ANOVAs. This statistical technique allowed the researcher to assess whether there were significant differences between male and female adolescents' mean scores on the measures assessed in each hypothesis. Furthermore, the mixed-design ANOVA technique catered to the mixed nature of the variables – between-subjects and within-subjects – included in each analysis.

The results of the assessment of the first hypothesis suggested that adolescent sex did not significantly influence adolescents' overall accuracy in perceiving their mothers' and their fathers' parental socialisation values. Similarly, with regard to the second research hypothesis, the results suggested that adolescent sex did not significantly influence adolescents' overall acceptance of what they perceived as their mothers' and their fathers' parental socialisation values. However, it was found that the interaction effect between parent sex and adolescent sex was significant, although the effect size was small, $F\ (1, 131) = 4.95$, $p = .03$, $\eta^2 = 0.01$. The results suggested that, compared to male adolescents, female adolescents had a higher overall acceptance of what they perceived as their fathers' parental socialisation values.

Hypotheses 3 through 6 focused on determining whether there were sex-based differences in adolescents' accuracy at perceiving and acceptance of what they perceived as the emphasis their mothers and fathers placed on specific parental socialisation values. As regards the third research hypothesis, there was no evidence to support the hypothesis that adolescent sex significantly influences adolescents' accuracy in perceiving the importance that their mothers and fathers place on the values of benevolence, universalism, and security as socialisation values. However, it was found that parent sex marginally influenced adolescents' accuracy in perceiving the importance that their mothers and father place on the values of universalism and security as socialisation values. Adolescents were more accurate at perceiving the importance that their mothers placed on the value of and more accurate at perceiving the importance that their fathers placed on the value of security as a socialisation value.

The results of the analysis of the fourth research hypothesis suggested that adolescent sex did not significantly influence adolescents' accuracy in perceiving the emphasis their mothers and fathers placed on all three of the values of power, achievement, and stimulation as socialisation values. However, it was found that, compared to female adolescents, male adolescents were more accurate in perceiving the emphasis their mothers and fathers placed on the value of power as a socialisation value, $F(1, 115) = 7.51$, $p = .007$, $\eta^2 = 0.05$. This suggested that there may be sex-based differences in adolescents' accuracy in perceiving the level of importance that their mothers and fathers place on the value of power as a socialisation value.

The results also suggested that with regard to the fifth research hypothesis, adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the importance that their mothers and fathers place on the values of benevolence, universalism, and security. However, the results did suggest that parent sex may influence adolescents' acceptance of what they perceive as the importance their mothers and fathers attribute to the value of benevolence as a socialisation value. Both male and female adolescents had a higher level of acceptance of what they perceived as the importance that their mothers place on the value of benevolence as a socialisation value.

Finally, in respect of the sixth hypothesis, the results suggested that adolescent sex did not significantly influence adolescents' acceptance of what they perceive as the level of importance their mothers and fathers place on the values of power, achievement, and stimulation as socialisation values. However, the researcher did find an interaction effect between parent sex and adolescent sex for adolescents' acceptance of the emphasis their mothers and fathers place on the value of achievement as a socialisation value. Female adolescents were more likely to accept the level of importance their fathers placed on the value of achievement, whereas male adolescents were more likely to accept the level of emphasis their mothers placed on the value of achievement.

In the discussion of the results, it was maintained that overall, the results of the study did not offer much support for the six research hypotheses that adolescent sex significantly influences adolescents' accuracy in perceiving and acceptance of parental socialisation. In other words, there was little support for the researcher's belief that there are sex-based

differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values. The only finding that offered some support for the research hypotheses was the finding of sex-based differences in adolescents' accuracy in perceiving the importance that their mothers and fathers placed on the value of power as a socialisation value.

In an attempt to explain this result, the study maintained that both social role theory and evolutionary psychology could offer potential explanations of this finding. From the perspective of social role theory, male adolescents could be afforded more opportunities to exercise self-assertion and dominance in their interactions with other people. In other words, they have a greater understanding of what others expect regarding their expressions of self-assertion and dominance. In contrast, evolutionary psychology would suggest that, in their preparation for the pressures associated with sexual selection, male adolescents become more aware of the importance of power as a value which will improve their future reproductive success.

Despite the above-mentioned finding relating to power, it was initially assumed that the overall results of the study cast doubt on the theories and the findings of sex-based differences in the ability of value priorities to offer some understanding of the specific value constructs on which sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur. However, the researcher maintained that the focus on the effect of adolescent sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values was too narrow. Instead, the results indicated that the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values is even more complicated than was initially assumed. Additionally, the lack of a consistent or clear pattern with regard to how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values indicated that the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values is value-specific.

The results also suggested that the attempt to use sex-based differences in value priorities as a guide to the development of the hypotheses regarding the value constructs on which possible sex-based differences in adolescents' accuracy in perceiving and acceptance of parental socialisation values may occur, was not as helpful as was initially proposed. Subsequently,

the results also hindered the attempt to use the theories of social role theory and evolutionary psychology and the literature on the socialisation of gender to explain how adolescents' accuracy in perceiving and acceptance of parental socialisation values is influenced by their selective attention to the value messages which they may deem as more relevant to the members of their sex.

In terms of the hypotheses pertaining to adolescents' overall accuracy in perceiving and acceptance of parental socialisation values, it was assumed that social role theory, evolutionary psychology, and the socialisation of gender literature offered some insight into the reasons why female adolescents may have higher overall accuracy in perceiving and acceptance of parental socialisation values. In essence, the argument was that females are encouraged to attend to the needs of others. By doing so, they become more attuned to the needs of others and have greater accuracy in perceiving what others expect from them. In contrast, males are encouraged to develop autonomy and make their own choices and thus males are less inclined to attend to other people's messages and also less likely to accept their messages. This argument reflected what Troll and Bengtson (1979, p. 144) characterised as a common assumption of the socialisation literature, namely that "daughters are more susceptible to parental influence than sons".

The results of the study indicated that there was no clear evidence to suggest that daughters are more susceptible to parental influence than sons or to suggest that daughters are more attentive to their parents' expectations. Furthermore, the interaction effects found in the analyses of hypotheses 1 and 2 challenged previous findings of female adolescents' higher overall accuracy in perceiving and acceptance of parental socialisation values (accuracy: Knafo & Schwartz, 2003; acceptance: Barni et al., 2011).

After realising that the focus on adolescent sex was too narrow, the researcher focused the study on Knafo and Schwartz's (2009) broader perspective of how the gender composition of the parent-child dyad affects adolescents' accuracy in perceiving and acceptance of parental socialisation values. This gave rise to the realisation that the results seemed to contradict early theories of identification (e.g. Freud, 1947; Kohlberg, 1966; Parsons, 1968). However, the results did not discredit the theories but rather suggested that, whereas adolescents do not

simply identify with their same-sex parent for all values, they may identify with different parents for different values.

Taken as a whole, the results suggested that, although the study's view was too narrow, a broader view on how sex influences adolescents' accuracy in perceiving and acceptance of parental socialisation values suggests that the variables of parent sex and adolescent sex should be afforded more importance as variables which influence the two steps of Grusec and Goodnow's (1994) model.

6.3 Limitations of the study

There were some limitations to the study. In the discussion of these limitations, the limitations are categorised into those which were related to the research design and those which were related to the research sample.

6.3.1 Limitations relating to the research design

The first limitation of the research relates to the difficulty in getting students and their parents to participate in the study. There were several factors which may have contributed to this experienced difficulty. Firstly, the research design required adolescents and both their parents to participate in the study. If any one of these family members decided not to participate in the study, the other family members may also have decided not to participate. Secondly, the information required to construct the measures of accuracy and acceptance resulted in a rather lengthy questionnaire – five pages. Thus, potential participants may have felt that completing the questionnaire was too time-consuming. Finally, it cannot be ruled out that the topic of this research was rather abstract and that potential participants may just have been uninterested in the topic of the research.

Following on from the above-mentioned limitation, the second limitation relates to how the length of the questionnaire could have affected the way in which some participants – particularly adolescents – may have answered the questionnaire. In section B of the adolescent questionnaire, adolescents had to provide answers to how they thought their mothers and their fathers would like them to respond to each question. Some adolescents may

have found this section repetitive and time-consuming and this could have led to these adolescents' providing the same answer for both parents simply so that they could finish the questionnaire. This could have resulted in less significant within-subjects and between-subjects effects.

The third limitation to the research design relates to the information needed to construct the measures of accuracy. In order to construct the measures of accuracy for each parent-child dyad, the researcher needed the relevant data from the parent and the child of each dyad. In cases where the information from one of the dyad members (e.g. the father) was missing, the measure of accuracy for that dyad could not be created. Furthermore, since the analyses required scores of accuracy from both adolescent-mother and adolescent-father dyads for each family, in cases where these scores were missing, this family's information could not be used in the analyses. Essentially, the applicability of this design can be questioned on the grounds of the frequent occurrence of social realities such as divorce, single-parent households, and even child-headed households. Thus, it seems that this research design may be limited to 'traditional' nuclear families.

The final limitation to the research design would be that both the research questions and research methodology could be seen as developing from a unidirectional perspective. Based on Kuczynski's (2003) comments, this research seems to suffer from the same disparity which occurs between the theory and the actual way in which empirical research is conducted within the field of socialisation. However, Kuczynski's comments also suggest that this study is not the only study that has struggled to incorporate the concept of bidirectionality into actual research.

6.3.2 Limitations relating to the sample

The first limitation of this research based on the sample is that this study made use of convenience sampling. The consequences of this sampling method were that the sample was not representative of either the more narrowly defined population – private Christian schools in the East Rand – or the broader population – South African adolescents. Thus, the possibility that larger and more representative samples might lead to results which differ from those found in this study cannot be excluded.

In the light of the above-mentioned point, the low response rate of male adolescents from St Dunstan's, and the resulting need to obtain more male participants from Christian Brothers College (Boksburg, South Africa), it is important to consider the characteristics of the male adolescents who participated in this study. How did these male adolescents differ from the male adolescents who did not choose to participate in the study? Taking this consideration to another level, one could ask how the families of these male adolescents differed from the families of the male adolescents who did not participate in this study. Were these families' value priorities different from those of the families who did not participate in the study? How have all these considerations influenced the results of this study? Although no definitive answers to these questions can be provided, it is believed that the characteristics of the male adolescent participants may further question the generalisability of the results.

6.4 Future directions for research

The results of this study open up a number of interesting future directions for research. Firstly, the most important future research direction is to explore the effect of sex on adolescents' accuracy in perceiving and acceptance of parental socialisation values, involving larger and more representative samples.

Secondly, this study has illustrated that future research should focus on the effect of sex on adolescents' accuracy in perceiving and acceptance of specific parental socialisation values. The contention is that, although it may be more challenging to focus on adolescents' accuracy in perceiving and acceptance of specific parental socialisation values, the results from this level of analysis could prove to be more revealing than results from the level of adolescents' overall accuracy in perceiving and acceptance of parental socialisation values. Furthermore, future research should determine how the measures of specific accuracy and acceptance should be created. A measure of simple absolute differences was used to construct scores of specific accuracy and acceptance in this study, whereas Knafo and Schwartz (2003) ranked scores and then used absolute differences to create the measures of specific accuracy and, later, Knafo and Schwartz (2009) correlated scores across dyads to create the measures of specific accuracy and acceptance. If future research continues to use different methods to construct these measures, research may fail to get any closer to understanding how sex

influences adolescents' accuracy in perceiving and acceptance of parental socialisation values.

Thirdly, it is suggested that the consistently small effect sizes found in sex-based differences in value priorities (Schwartz & Rubel, 2005; Schwartz & Rubel-Lifschitz, 2009), together with the small effect sizes found in this study, stem from the use of the variable of sex. In this study, sex referred to participants' identification with the biological categories of male or female. However, it seems that the variable of sex does not fully capture the variation in the participants' scores. Instead, it may be that the meaning that participants place on the sexual categories of male and female may account for more of the variation in participants' scores than their identification with the biological categories of male and female. The recommendation therefore is that future research should shift from a focus on the effect of sex to a focus on the effect of gender on adolescents' accuracy in perceiving and acceptance of parental socialisation values.

This recommendation also implies that future research within the South African context must utilise a measure of gender or gender identity which adequately captures the cultural meaning that South Africans place on the categories of male and female. However, in a country as culturally diverse as ours, it might just be that finding this measure is a study in itself.

Fourthly, future research on the effect of sex – or gender – on adolescents' accuracy in perceiving and acceptance of parental socialisation values should consider making use of the recently refined measure of basic human values – the PVQ-R (Schwartz, Cieciuch, Vecchione, Davidov, Fischer, Beierlein, et al., 2012). Evaluating the effect of sex – or gender – on adolescents' accuracy in perceiving and acceptance of parental socialisation value on the 19 more finely-tuned values could reveal entirely new findings.

Fifthly, since parents are not the only socialisation agents, it could be interesting to focus on adolescents' perceptions of the values that other socialisation agents find as important for their lives. These socialisation agents could include siblings, grandparents, friends, boyfriends or girlfriends, teachers, or even the media. Although research designs which involve multiple socialisation agents could be exceptionally complex, the results could reveal

what kind of influence these socialisation agents have on the values that adolescents find important to their lives.

Finally, with the development of the "Picture-based value survey for children" (Döring, Blauensteiner, Aryus, Drögekamp, and Bilsky, 2010), future research could also focus on children's accuracy in perceiving and acceptance of what they perceive as the values that their parents consider important in their lives. Since the bulk of socialisation and developmental literature focuses on childhood, this measure could perhaps allow future research to engage more directly with this literature.

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ANNEXURE 1

UNISA university of south africa

TO ALL PARENTS AND PUPILS

I would like to take this opportunity to thank you for taking the time to attend to this letter. I, Steven Rebello, am currently completing my Master's degree in Research Psychology through the University of South Africa. In order to complete this degree, I am required to complete a dissertation on a topic within the field of psychology. The purpose of this letter is to inform you, the parent or pupil involved with Christian Brothers' College, about the opportunity to participate in this study.

WHAT IS THIS STUDY ABOUT?

To give you an idea of what this study is about, I would like you to look at the people pictured below:

Each picture portrays people who are quite different from each other. What makes these people different from each other is that although they share the same basic values, each person differs with regards to the level of importance that they place on different values within their lives.

You may be asking; "What are values?" Values play a role in determining what we find as important in life and, in turn, what we strive for in life. Based on what you know about each person or what you can sense in each picture, what would you say each person has strived for in life? What do they find as important in life?

In this study, I would like to find out:

1) What do adolescents (teenagers) find as important for their own lives?
2) What do parents find as important for their children's lives?
3) How accurately do adolescents perceive the values that their parents see as important for their lives?
4) How willing are adolescents to accept the values that they think their parents see as important for their lives?

WHAT ARE SOME OF THE BENEFITS OF PARTICIPATING IN THIS STUDY?

All participants will have the opportunity to find out more about **their own values** based on the most recognized measure of basic human values that is currently available. Adolescents will have the opportunity to **reflect** on what values they believe their parents would like them to hold and, likewise, parents will be able to reflect on the values they would like their children to hold.

All participants will also receive written feedback on the way in which they arrange the importance of different values within their lives.

HOW WILL INFORMATION BE COLLECTED FROM PARTICIPANTS?

All participants will be required to complete a 40-item, Likert scale (similar to multiple-choice) questionnaire.

Both parents and children will have the opportunity to complete the questionnaire at home. It should take approximately 45 minutes for parents to complete the questionnaire and 60 minutes for pupils (adolescents) to complete the questionnaire.

PROCEDURE:

If you are interested in participating in this study, please return the return slip at the end of this letter to either Mr Flood or Mrs Caldeira. Mr Flood or Mrs Caldeira will then give your child an envelope which contains an informed consent document, questionnaires for parents, and a questionnaire for your child.

Please complete the informed consent letter and the questionnaires and return them to either Mr Flood or Mrs Caldeira by the 4th of April.

I will stay in contact with all participants and when the results of the study have been determined, I will host an evening in which I will share the results of the study with all participants. I will also provide written feedback to participants on the way in which they arrange the importance of different values within their lives.

SELECTION CRITERIA FOR PARTICIPANTS

Since this study is being conducted in co-operation with Christian Brothers' College, all pupils are welcome to participate in this study. The only request is that, if possible, both of the adolescent's biological parents must participate in the study.

I would like to thank Mr Connell and Mr Flood for permitting me to send this letter out to the parents and pupils involved with Christian Brothers' College.

I _____ parent of _____, in grade _____, am interested

in participating in this study. I am aware that in order to receive an envelope which contains the informed consent documents and questionnaires, my child needs to return this slip to Mr Flood or Mrs Caldeira.If the researcher needs to update me with any information about the study, he can contact me on:

Cell: _____ email: _____

Thank you for taking the time to assist me in my studies.
Your kindness is greatly appreciated.

ANNEXURE 2

Section A

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Please place a tick ✔ in the box/option which best describes how much each person is or is not like you:

	How much like you is this person?	Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
1	Thinking up new ideas and being creative is important to him. He likes to do things in his own original way	0	1	2	3	4	5
2	It is important to him to be rich. He wants to have a lot of money and expensive things.	0	1	2	3	4	5
3	He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life	0	1	2	3	4	5
4	It's very important to him to show his abilities. He wants people to admire what he does	0	1	2	3	4	5
5	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety	0	1	2	3	4	5
6	He thinks it is important to do lots of different things in life. He always looks for new things to try	0	1	2	3	4	5
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	0	1	2	3	4	5
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	0	1	2	3	4	5
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	0	1	2	3	4	5
10	He seeks every chance he can to have fun. It is important to him to do things that give him pleasure	0	1	2	3	4	5
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	0	1	2	3	4	5
12	It's very important to him to help the people around him. He wants to care for their wellbeing	0	1	2	3	4	5
13	Being very successful is important to him. He likes to impress other people	0	1	2	3	4	5
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	0	1	2	3	4	5
15	He likes to take risks. He is always looking for adventures	0	1	2	3	4	5
16	It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong	0	1	2	3	4	5
17	It is important to him to be in charge and tell others what to do. He wants people to do what he says	0	1	2	3	4	5
18	It is important to him to be loyal to his friends. He wants to devote himself to people close to him	0	1	2	3	4	5
19	He strongly believes that people should care for nature. Looking after the environment is important to him	0	1	2	3	4	5
20	Religious belief is important to him. He tries hard to do what his religion requires	0	1	2	3	4	5
21	It is important to him that things be organised and clean. He really does **not** like things to be a mess	0	1	2	3	4	5
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	0	1	2	3	4	5
23	He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him	0	1	2	3	4	5

	How much like you is this person?	Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
24	He thinks it is important to be ambitious. He wants to show how capable he is	0	1	2	3	4	5
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	0	1	2	3	4	5
26	Enjoying life's pleasures is important to him. He likes to 'spoil' himself	0	1	2	3	4	5
27	It is important to him to respond to the needs of others. He tries to support those he knows	0	1	2	3	4	5
28	He believes he should always show respect to his parents and to older people. It is important to him to be obedient	0	1	2	3	4	5
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	0	1	2	3	4	5
30	He likes surprises. It is important to him to have an exciting life	0	1	2	3	4	5
31	He tries hard to avoid getting sick. Staying healthy is very important to him	0	1	2	3	4	5
32	Getting ahead in life is important to him. He strives to do better than others.	0	1	2	3	4	5
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	0	1	2	3	4	5
34	It is important to him to be independent. He likes to rely on himself	0	1	2	3	4	5
35	Having a stable government is important to him. He is concerned that the social order be protected	0	1	2	3	4	5
36	It is important to him to be polite to other people all the time. He tries never to disturb or irritate others	0	1	2	3	4	5
37	He really wants to enjoy life. Having a good time is very important to him	0	1	2	3	4	5
38	It is important to him to be humble and modest. He tries **not** to draw attention to himself	0	1	2	3	4	5
39	He always wants to be the one who makes the decisions. He likes to be the leader	0	1	2	3	4	5
40	It is important to him to adapt to nature and to fit into it. He believes that people should **not** change nature	0	1	2	3	4	5

Section B

In this section you may notice that the statements are the same as the statements in the previous section. However, in this section I would like you to think how your mom and dad would like you to respond to each item.

	How would your mom and dad want you to respond to each item?	MOM							DAD						
		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
1	Thinking up new ideas and being creative is important to him. He likes to do things in his own original way	0	1	2	3	4	5		0	1	2	3	4	5
2	It is important to him to be rich. He wants to have a lot of money and expensive things.	0	1	2	3	4	5		0	1	2	3	4	5
3	He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life	0	1	2	3	4	5		0	1	2	3	4	5
4	It's very important to him to show his abilities. He wants people to admire what he does	0	1	2	3	4	5		0	1	2	3	4	5
5	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety	0	1	2	3	4	5		0	1	2	3	4	5
6	He thinks it is important to do lots of different things in life. He always looks for new things to try	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
10	He seeks every chance he can to have fun. It is important to him to do things that give him pleasure	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
12	It's very important to him to help the people around him. He wants to care for their wellbeing	0	1	2	3	4	5		0	1	2	3	4	5
13	Being very successful is important to him. He likes to impress other people	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5

	How would your mom and dad want you to respond to each item?	MOM							DAD						
		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
15	He likes to take risks. He is always looking for adventures	0	1	2	3	4	5		0	1	2	3	4	5
16	It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong	0	1	2	3	4	5		0	1	2	3	4	5
17	It is important to him to be in charge and tell others what to do. He wants people to do what he says	0	1	2	3	4	5		0	1	2	3	4	5
18	It is important to him to be loyal to his friends. He wants to devote himself to people close to him	0	1	2	3	4	5		0	1	2	3	4	5
19	He strongly believes that people should care for nature. Looking after the environment is important to him	0	1	2	3	4	5		0	1	2	3	4	5
20	Religious belief is important to him. He tries hard to do what his religion requires	0	1	2	3	4	5		0	1	2	3	4	5
21	It is important to him that things be organised and clean. He really does **not** like things to be a mess	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
23	He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him	0	1	2	3	4	5		0	1	2	3	4	5
24	He thinks it is important to be ambitious. He wants to show how capable he is	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
26	Enjoying life's pleasures is important to him. He likes to 'spoil' himself	0	1	2	3	4	5		0	1	2	3	4	5
27	It is important to him to respond to the needs of others. He tries to support those he knows	0	1	2	3	4	5		0	1	2	3	4	5
28	He believes he should always show respect to his parents and to older people. It is important to him to be obedient	0	1	2	3	4	5		0	1	2	3	4	5
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	0	1	2	3	4	5		0	1	2	3	4	5
30	He likes surprises. It is important to him to have an exciting life	0	1	2	3	4	5		0	1	2	3	4	5
31	He tries hard to avoid getting sick. Staying healthy is very important to him	0	1	2	3	4	5		0	1	2	3	4	5
32	Getting ahead in life is important to him. He strives to do better than others.	0	1	2	3	4	5		0	1	2	3	4	5

	How would your mom and dad want you to respond to each item?	MOM							DAD					
		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me		Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
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	0	1	2	3	4	5		0	1	2	3	4	5
34	It is important to him to be independent. He likes to rely on himself	0	1	2	3	4	5		0	1	2	3	4	5
35	Having a stable government is important to him. He is concerned that the social order be protected	0	1	2	3	4	5		0	1	2	3	4	5
36	It is important to him to be polite to other people all the time. He tries never to disturb or irritate others	0	1	2	3	4	5		0	1	2	3	4	5
19	He strongly believes that people should care for nature. Looking after the environment is important to him	0	1	2	3	4	5		0	1	2	3	4	5
37	He really wants to enjoy life. Having a good time is very important to him	0	1	2	3	4	5		0	1	2	3	4	5
38	It is important to him to be humble and modest. He tries **not** to draw attention to himself	0	1	2	3	4	5		0	1	2	3	4	5
39	He always wants to be the one who makes the decisions. He likes to be the leader	0	1	2	3	4	5		0	1	2	3	4	5
40	It is important to him to adapt to nature and to fit into it. He believes that people should **not** change nature	0	1	2	3	4	5		0	1	2	3	4	5

Section C

Name		Age	
Sex (male/female)		Grade	
School		Home language	
Racial group			

Are your parents currently married, separated, or divorced?	
How many siblings (brothers/sisters) do you have?	
Are you the oldest, middle, youngest, or only child in your family?	
Which cultural group do you identify with (e.g. Greek, Afrikaans, Zulu, or none in particular)?	
What is your religious faith (e.g. Christian, Hindu, Muslim, Buddhist…)?	

I would like to get a slightly better idea of your religious faith in order to understand if/how religion plays a role in the results of the study. The statements in the table below aim to find out more about your religious faith over the past 12 months.

	[Please place a tick ✔ in the box/option which best represents] How often have you:	Never	Hardly ever	Sometimes	Often	Always
1	Felt that your religious faith has helped you to make important decisions	0	1	2	3	4
2	Felt that your religious faith has helped you through difficult times	0	1	2	3	4
3	Attended worship services (e.g. church)	0	1	2	3	4
4	Read religious material (e.g. Bible)	0	1	2	3	4
5	Prayed	0	1	2	3	4

Thank you very much for your assistance, it is greatly appreciated ☺

Section A

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Please place a tick ✔ in the box/option which best describes how much each person is or is not like you:

	How much like you is this person?	Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
1	Thinking up new ideas and being creative is important to him. He likes to do things in his own original way	0	1	2	3	4	5
2	It is important to him to be rich. He wants to have a lot of money and expensive things.	0	1	2	3	4	5
3	He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life	0	1	2	3	4	5
4	It's very important to him to show his abilities. He wants people to admire what he does	0	1	2	3	4	5
5	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety	0	1	2	3	4	5
6	He thinks it is important to do lots of different things in life. He always looks for new things to try	0	1	2	3	4	5
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	0	1	2	3	4	5
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	0	1	2	3	4	5
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	0	1	2	3	4	5
10	He seeks every chance he can to have fun. It is important to him to do things that give him pleasure	0	1	2	3	4	5
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	0	1	2	3	4	5
12	It's very important to him to help the people around him. He wants to care for their wellbeing	0	1	2	3	4	5
13	Being very successful is important to him. He likes to impress other people	0	1	2	3	4	5
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	0	1	2	3	4	5
15	He likes to take risks. He is always looking for adventures	0	1	2	3	4	5
16	It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong	0	1	2	3	4	5
17	It is important to him to be in charge and tell others what to do. He wants people to do what he says	0	1	2	3	4	5
18	It is important to him to be loyal to his friends. He wants to devote himself to people close to him	0	1	2	3	4	5
19	He strongly believes that people should care for nature. Looking after the environment is important to him	0	1	2	3	4	5
20	Religious belief is important to him. He tries hard to do what his religion requires	0	1	2	3	4	5
21	It is important to him that things be organised and clean. He really does **not** like things to be a mess	0	1	2	3	4	5
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	0	1	2	3	4	5
23	He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him	0	1	2	3	4	5
24	He thinks it is important to be ambitious. He wants to show how capable he is	0	1	2	3	4	5

	How much like you is this person?	Not like me at all	Not like me	A little like me	Somewhat like me	Like me	Very much like me
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	0	1	2	3	4	5
26	Enjoying life's pleasures is important to him. He likes to 'spoil' himself	0	1	2	3	4	5
27	It is important to him to respond to the needs of others. He tries to support those he knows	0	1	2	3	4	5
28	He believes he should always show respect to his parents and to older people. It is important to him to be obedient	0	1	2	3	4	5
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	0	1	2	3	4	5
30	He likes surprises. It is important to him to have an exciting life	0	1	2	3	4	5
31	He tries hard to avoid getting sick. Staying healthy is very important to him	0	1	2	3	4	5
32	Getting ahead in life is important to him. He strives to do better than others.	0	1	2	3	4	5
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	0	1	2	3	4	5
34	It is important to him to be independent. He likes to rely on himself	0	1	2	3	4	5
35	Having a stable government is important to him. He is concerned that the social order be protected	0	1	2	3	4	5
36	It is important to him to be polite to other people all the time. He tries never to disturb or irritate others	0	1	2	3	4	5
37	He really wants to enjoy life. Having a good time is very important to him	0	1	2	3	4	5
38	It is important to him to be humble and modest. He tries **not** to draw attention to himself	0	1	2	3	4	5
39	He always wants to be the one who makes the decisions. He likes to be the leader	0	1	2	3	4	5
40	It is important to him to adapt to nature and to fit into it. He believes that people should **not** change nature	0	1	2	3	4	5

Section B

In this section, I would like to look at the values that you find as important for your son's life. To do this, I would like you to think about **how you would like your son to respond to each item**.

	How would you like your son to respond to each item?	Not like him at all	Not like him	A little like him	Somewhat like him	Like him	Very much like him
1	Thinking up new ideas and being creative is important to him. He likes to do things in his own original way	0	1	2	3	4	5
2	It is important to him to be rich. He wants to have a lot of money and expensive things.	0	1	2	3	4	5
3	He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life	0	1	2	3	4	5
4	It's very important to him to show his abilities. He wants people to admire what he does	0	1	2	3	4	5
5	It is important to him to live in secure surroundings. He avoids anything that might endanger his safety	0	1	2	3	4	5
6	He thinks it is important to do lots of different things in life. He always looks for new things to try	0	1	2	3	4	5

	How would you like your son to respond to each item?	Not like him at all	Not like him	A little like him	Somewhat like him	Like him	Very much like him
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	0	1	2	3	4	5
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	0	1	2	3	4	5
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	0	1	2	3	4	5
10	He seeks every chance he can to have fun. It is important to him to do things that give him pleasure	0	1	2	3	4	5
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	0	1	2	3	4	5
12	It's very important to him to help the people around him. He wants to care for their wellbeing	0	1	2	3	4	5
13	Being very successful is important to him. He likes to impress other people	0	1	2	3	4	5
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	0	1	2	3	4	5
15	He likes to take risks. He is always looking for adventures	0	1	2	3	4	5
16	It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong	0	1	2	3	4	5
17	It is important to him to be in charge and tell others what to do. He wants people to do what he says	0	1	2	3	4	5
18	It is important to him to be loyal to his friends. He wants to devote himself to people close to him	0	1	2	3	4	5
19	He strongly believes that people should care for nature. Looking after the environment is important to him	0	1	2	3	4	5
20	Religious belief is important to him. He tries hard to do what his religion requires	0	1	2	3	4	5
21	It is important to him that things be organised and clean. He really does **not** like things to be a mess	0	1	2	3	4	5
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	0	1	2	3	4	5
23	He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him	0	1	2	3	4	5
24	He thinks it is important to be ambitious. He wants to show how capable he is	0	1	2	3	4	5
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	0	1	2	3	4	5
26	Enjoying life's pleasures is important to him. He likes to 'spoil' himself	0	1	2	3	4	5
27	It is important to him to respond to the needs of others. He tries to support those he knows	0	1	2	3	4	5
28	He believes he should always show respect to his parents and to older people. It is important to him to be obedient	0	1	2	3	4	5
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	0	1	2	3	4	5
30	He likes surprises. It is important to him to have an exciting life	0	1	2	3	4	5
31	He tries hard to avoid getting sick. Staying healthy is very important to him	0	1	2	3	4	5
32	Getting ahead in life is important to him. He strives to do better than others.	0	1	2	3	4	5
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	0	1	2	3	4	5
34	It is important to him to be independent. He likes to rely on himself	0	1	2	3	4	5

	How would you like your son to respond to each item?	Not like him at all	Not like him	A little like him	Somewhat like him	Like him	Very much like him
35	Having a stable government is important to him. He is concerned that the social order be protected	0	1	2	3	4	5
36	It is important to him to be polite to other people all the time. He tries never to disturb or irritate others	0	1	2	3	4	5
37	He really wants to enjoy life. Having a good time is very important to him	0	1	2	3	4	5
38	It is important to him to be humble and modest. He tries **not** to draw attention to himself	0	1	2	3	4	5
39	He always wants to be the one who makes the decisions. He likes to be the leader	0	1	2	3	4	5
40	It is important to him to adapt to nature and to fit into it. He believes that people should **not** change nature	0	1	2	3	4	5

Section C – Biographical Information

Name		Age	
Sex (male/female)		Racial group	
Nationality		Home language	
Occupation			

Name of child who participated in this study	
Is this child your biological child?	
Are you currently married to this child's mother?	
Which cultural group do you identify with (e.g. Greek, Afrikaans, Zulu, or none in particular)?	
What is your religious faith (e.g. Christian, Hindu, Muslim, Buddhist…)?	

I would like to get a slightly better idea of your religious faith in order to understand if/how religion plays a role in the results of the study. The statements in the table below aim to find out more about your religious faith over the past 12 months.

	[Please place a tick ✔ in the box/option which best represents] **How often have you:**	Never	Hardly ever	Sometimes	Often	Always
1	Felt that your religious faith has helped you to make important decisions	0	1	2	3	4
2	Felt that your religious faith has helped you through difficult times	0	1	2	3	4
3	Attended worship services (e.g. church)	0	1	2	3	4
4	Read religious material (e.g. Bible)	0	1	2	3	4
5	Prayed	0	1	2	3	4

Please ensure that you have responded to each statement or question.

Together with this questionnaire, please complete and return the informed consent letter by the 16th of March.

ANNEXURE 3

Informed consent information

Please read the following information with regard to your participation in this study. After you have read through it, please sign and submit the form if you are willing to participate in this study.

As a potential participant in this study, I acknowledge the following:

- From the letter which gives a more detailed description of the study, I understand the way in which information will be collected (questionnaire), the selection criteria and the time slots which I could choose to answer the questionnaire
- I understand that my participation is voluntary and I have the right to withdraw from the study at any time with facing any consequences. If I withdraw from the study, any of my information will not be used in this study
- I understand that the researcher (Steven Rebello) will keep my information confidential which means that only the researcher as well as his supervisor (Prof. Ilse Ferns) will have access to the information which I provide them with (personal details and answers to questionnaire).
- I understand that my name is provided on this consent form just to ensure ethical/ legal procedures are followed by the researcher, to ensure my protection
- The researcher will report the findings of this study collectively, no names will be reported in the findings of this study, my personal identity will be kept anonymous
- I understand that the researcher will be publishing the findings of this study in the form of a dissertation and research article, as these are requirements for the completion of his degree
- I am aware that once the study has been completed, I will be able to access the published findings of the study electronically if I wish to
- Finally, I understand that I will have the opportunity to attend a meeting after the study has been completed, in which the researcher will inform the participants about the findings of the study. In addition, I have the choice if I would like to receive a summary of the meaning of my answers to the questionnaire at this meeting.
- If I have any enquiries about the study, the criteria used for selection or any other enquiries, I can contact Steven Rebello at:

stevierebello@gmail.com 0794934118

[Father] I _____ (name and surname) have read and understand the points which have been mentioned above. By signing below, I agree to participate in this study and I am aware that my participation is voluntary. I also give consent for my child (below mentioned) to participate in this study

[Mother] I _____ (name and surname) have read and understand the points which have been mentioned above. By signing below, I agree to participate in this study and I am aware that my participation is voluntary. I also give consent for my child (below mentioned) to participate in this study

[Adolescent/child] I _____ (name and surname) have read and understand the points which have been mentioned above. By signing below, I agree to participate in this study and I am aware that my participation is voluntary

_____ _____

(Signature of father) (Signature of mother)

_____

(Signature of adolescent)

_____

(Date)

Contact details of either parent:

e-mail: _____ Cell: _____