THE ORIGINS OF FEARS IN A SELECTED GROUP OF MIDDLE CHILDHOOD SOUTH AFRICAN CHILDREN

MICHELLE DU PLESSIS

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Supervisor: Dr HS Loxton

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work, and that I have not previously in its entirety or in part submitted it at any university for a degree.

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Signature Date

ABSTRACT

The aims of the present study were to inquire into the origins of middle childhood South African children's fears. In order to do this as precisely as possible it was determined to what extent Rachman's (1977, 1991) three pathways played a role in the *experience* of the selected sample's fears; in *intensifying* their fears; and finally in the actual *onset* of their fears. The results were examined across the independent variables age, gender, socio-economic status (SES), and culture. In addition, Rachman's (1977; 1991) hypothesis that stronger, more intense fears originate through Conditioning experiences, while less intense, everyday fears originate through the indirect pathways, namely Modeling and Negative Information/Instruction was tested.

The participants consisted of a sample of 660 children aged between 10 and 14 years, attending grades 5 and 7, representing the three main cultural groups found in the Western Cape, South Africa, and residing in low, middle and high socio-economic residential areas. Participants completed a short biographical questionnaire and the Fear Option List (FOL).

Data analysis revealed that the majority of participants reported Modeling *experiences* in connection to their greatest fear, followed by Information and Conditioning experiences. Significant gender, SES, and cultural differences were found. The majority of participants reported that Information experiences were responsible for *intensifying* their greatest fear, and thus playing a role in maintaining it, followed by Modeling and Conditioning experiences. Significant gender, SES, and cultural differences were found. With regard to the actual *onset* of participants fears, the majority of participants reported that they had no clear idea of how their fear began, followed by Information, Conditioning, and Modeling. Only significant SES and cultural differences were found.

The first half of Rachman's (1977; 1991) hypothesis was confirmed in that stronger, more intense fears were found to be strongly related to Conditioning experiences.

However, the second part of his hypothesis that less intense, everyday fears are likely to originate through the indirect pathways was not confirmed.

The implications of the present study's findings within a South African context are discussed, as well as the limitations of the study and suggestions for future research.

OPSOMMING

Die doel van die onderhawige studie was om ondersoek in te stel na die oorsprong van Suid-Afrikaanse kinders in die middelkinderjare se vrese. Om dit so presies moontlik te bepaal is daar vasgestel in watter mate Rachman (1977, 1991) se drie weë 'n rol te speel gehad het in die gekose steekproef se *vreeservaring*, hulle *vreesintensifisering*, en in die laaste instansie die werklike *aanvang* van hulle vrese. Die resultate is bestudeer aan die hand van die volgende onafhanklike veranderlikes: ouderdom, geslag, sosio-ekonomiese status (SES) en kultuur. Daarbenewens is daar ondersoek ingestel na Rachman (1977, 1991) se hipotese dat Kondisioneringservarings die oorsaak van sterker, intenser vrese is, terwyl minder intense, alledaagse vrese veroorsaak word deur die indirekte weë, naamlik Modellering en Negatiewe Inligting/Instruksie.

Die deelnemers het bestaan uit 'n steekproef van 660 kinders tussen 10 en 14 jaar oud, in graad 5 en 7, verteenwoordigend van al drie die hoof kulturele groepe in die Wes-Kaap, Suid-Afrika, en inwoners van lae, middel- en hoë sosio-ekonomiese woongebiede. Hulle moes 'n kort, biografiese vraelys invul en ook die Vreesopsie-lys (Fear Option List/FOL).

Data-analise het getoon dat die meeste deelnemers Modelleringservarings aangedui het as verbandhoudend met hulle grootste vrees, gevolg deur Inligting- en Kondisioneringservarings. Beduidende verskille is aangetref wat betref geslag, SES en kultuur. Die meeste deelnemers het aangedui dat Inligtingservarings verantwoordelik was vir die *intensifisering* van hulle grootste vrees en dus n rol gespeel het in die handhawing daarvan, gevolg deur Modellering- en Kondisioneringservarings. Beduidende verskille is aangetref wat betref geslag, SES en kultuur. Wat die werklike *aanvang* van die deelnemers se vrese betref, het die meeste deelnemers aangedui dat hulle nie duidelik kon sê wanneer hulle vrees onstaan het nie. Inligting, Kondisionering en Modellering is in dié volgorde verder aangedui as oorsaaklik. Daar is slegs beduidende SES- en kulturele verskille aangetref.

Die eerste helfte van Rachman (1977, 1991) se hipotese is bevestig, naamlik dat daar ’n sterk verband bestaan tussen intenser vrese en Kondisioneringservarings. Die tweede deel van die hipotese is egter nie bevestig nie, naamlik dat die ontstaan van minder intense, alledaagse vrese waarskynlik aan die indirekte weë toegeskryf kan word.

Die implikasies van die onderhawige studie se bevindinge binne ’n Suid-Afrikaanse konteks word bespreek en so ook die studie se beperkinge en aanbevelings wat betref toekomstige navorsing.

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LIST OF CONTENTS

LIST OF TABLES **PAGE**

CHAPTER 1

INTRODUCTION

1.1 Motivation for the study

Within a country undergoing such significant and historical transformation as South Africa, it is vital to study and, in so doing, gain an understanding of and insight into those groups whose existence and consequential actions have a major impact on the shape and state of that nation and it's future direction (Burman, 1986). Exactly such a group was targeted in the present study: South African children. Each day these children live in the aftermath of the apartheid era, in one of the most rapidly growing and dynamic societies on earth, filled with unique challenges for each population group as well as society as a whole, the effects of which remain relatively undetermined, and cannot be ignored.

The onset of many anxiety disorders and the symptomology thereof can be traced back to childhood (Loxton, 2004) and specific fears have been found to be prevalent among middle-childhood children (Burkhardt, Loxton, & Muris, 2003; Muris, Merckelbach, Gadet, Moulert, 2000). Although the content of these fears has been extensively studied (King, Hamilton, & Ollendick, 1988; Muris, Merckelbach, Gadet et al., 2000; Muris, Merckelbach, & Collaris, 1997; Muris, Merckelbach, Ollendick, King, & Bogie, 2001), less attention has been focused, from a scientific point of view, on the origin of these fears, especially within a South African context. In addition, little is known about the processes or mechanisms which are responsible for the observed differences in fears as a function of age, gender, socio-economic, and cultural factors (Ollendick, Yang, Dong, Xia, & Lin, 1995). South African children occupy a rich and diverse range of cultural backgrounds. A study carried out by Muris, Schmidt, Engelbrecht and Perold (2002) found higher levels of anxiety disorder symptoms as classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM IV; American Psychiatric Association [APA], 1994) among coloured and black children as compared to the white children in their sample. People with anxiety disorders tend to overestimate the danger of specific feared stimuli (Arntz, 1997). However, the terms 'anxiety' and 'fear' are often confused. Whereas fears are likely to be intense, brief and in reaction to an identifiable threat,

anxiety is more of an anticipation of a threatening but vague event (Rachman, 1998). The study of Burkhardt, et al. (2003) found high levels of fear present among South African children, especially black children. As very few studies have been carried out on either children's fears or anxieties within a South African context, the studies of Muris, Schmidt et al. (2002) study and Burkhardt et al. (2003) can be viewed as vitally important in highlighting the social relevance of the present study by addressing the origins of these fears for the purpose of devising effective treatment plans and, especially, preventive strategies at grass roots level. Recognition is increasingly being given to the fact that the collection of information on the origins of children's fears can form a crucial part of initial assessment and treatment strategies (Menzies & Clark, 1995).

The primary motivation for the present study thus lies in its potential to aid in the construction of prevention programmes and effective, short-term, cost-effective treatment strategies targeting maladaptive fears based on their origin. This is especially important within a South African context where the availability of resources, both human and financial, is scarce, and where the burden placed on educational and community services desperately needs to be lifted.

1.2. Research problems and aims of the study

The present study examined the origin of childhood fears on the basis of Rachman's (1977) three pathways theory. Rachman (1977; 1991) claims there are three pathways responsible for the acquisition of fear, namely, Conditioning, Vicarious information (Modelling), and the transmission of Information and/or instruction.

Previous research on Rachman's three pathways theory in relation to the origin of childhood fears has mostly been retrospective in nature and therefore subject to memory bias (Field & Lawson, 2003), has failed to collect data on the experiences of normal samples (Field, Argyris, & Knowles, 2001) as well as samples representing a variety of cultures. The present study therefore aimed to collect data regarding the origins of middle-childhood fears from the children themselves, who composed a normal sample and that was drawn from three of the main cultural groups found in the Western Cape Province, South Africa.

In the absence of relevant scientific evidence regarding the origins of fears, the present study aimed to provide a profile of the origins of common South African middle-childhood fears. How the origins of these fears are distributed across the independent variables of age, gender, SES, and culture in South Africa, was also explored. The various relationships between the three pathways and the severity of the sample's fears were also tested.

To summarize, the research questions of the present study were as follows:

1.2.1 What are the origins of common middle-childhood fears according to Rachman's three pathways theory?

a) To what extent do the three pathways play a role in the *experience* of middle-childhood South African children's fears?
b) To what extent do the three pathways play a role in *intensifying* middle-childhood South African children's fears?
c) To what extent do the three pathways play a role in the *onset* of middle-childhood South African children's fears?

1.2.2. How are the origins of common childhood fears distributed across the independent variables age, gender, socio-economic status (SES), and culture in a selected group of middle-childhood South African children?

1.2.3. Is there a relationship between the severity of the sample's fears and

a) the pathway of conditioning?
b) the pathway of vicarious learning (modelling)?
c) the pathway of negative instruction/information?

1.3. Overview of the thesis

Chapter 1: Constitutes the introduction of the thesis. The motivation for the present study is presented as well as the research problems and ultimate aims of the research. An overview of the thesis is provided.

Chapter 2: Key terms pertaining to the origins of South African middle-childhood fears are clarified and defined. The theoretical framework for the study is outlined. Into this framework relevant developmental theories were incorporated, namely, the systems theory, cognitive-developmental theory, psychodynamic theory, social learning theory, and finally Rachman's three pathways theory. A literature review is provided which focuses on previous research conducted on the origins of childhood fear, and on the independent variables, age, gender, socio-economic status, and culture, as well as their relation to childhood fears.

Chapter 3: Here the methodology used to implement the research is described, including how participants were recruited, their biological details, the research design, measuring instruments used, namely a short biographical questionnaire, and the Fear Option List (FOL). A description of the research procedure and the statistical analyses used to analyse the data is given.

Chapter 4: The quantitative results of the study are reported. The content and severity of the sample's fears are reported in general, as well as in line with the independent variables age, gender, socio-economic status, and culture. The origins of the sample's fears are then reported, according to the role that the three pathways played in the sample's *experience* of their fears, in *intensifying* their fears and in the actual *onset* of their fears. Again results are reported for the sample in general, as well as in line with the independent variables age, gender, socio-economic status and culture. The relationships between the severity of the sample's fears and the three pathways of fear acquisition are reported, as well as the sources of the indirect pathways, Modelling and Information.

Chapter 5: The results reported in chapter 4 are discussed. The content and severity of the sample's fear are described. The origins of the sample's fear are discussed: firstly regarding all participants, and regarding each independent variable, namely, age, gender, socio-economic status and culture. Results are discussed regarding the role that each pathway plays in the *experience* of fear, in *intensifying* it, and in the actual *onset* of the sample's fears. The influence of the independent variables on each of these categories is also discussed. The relationship between the severity of participants' fears and the three pathways is discussed as well as the sources of the indirect pathways, Modelling and Information. The chapter concludes with a description of the favourite types of television programmes of this specific sample of middle-childhood children.

Chapter 6: A brief summary of the findings is provided as well as their implications within a South African context. The limitations of the study are discussed and recommendations for future research are given.

CHAPTER 2

Literature Review

2.1. Key terms.

2.1.1 Fear

According to Marks (cited in King et al., 1988, p.3), “Fear is a normal response to active or imagined threat in higher animals, and comprises of an outer behavioural expression, an inner feeling, and accompanying physiological changes”

Specific fears are prevalent in children of all ages (Burkhardt et al., 2003; Gullone & King, 1993; King et al., 1988; Muris, Merckelbach, Gadet et al., 2000; Muris, Bodden, Merckelbach, Ollendick, & King, 2003; Muris, Merckelbach, & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997; Muris & Merckelbach, 2000; Ollendick, Matson, & Helsel, 1985). Children tend to have more fears than adults do and their fears are more volatile and intense (Marks, 1987) but are generally seen as a part of normal development (Gullone & King, 1993; Hetherington & Parke, 1993). Children in early childhood tend to display fears of imaginary creatures, small animals, and darkness. Social fears and injury fears begin to emerge with the commencement of school and continue through middle-childhood. By adolescence, the most common fears experienced are related to injury, natural events, social situations and criticisms (Miller, 1983; Muris, Merckelbach, & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997). It is assumed that cognitive capacities of the growing child responsible for recognizing and understanding the potential harm or danger inherent in certain events or places are among the mechanisms underlying the changes related to development (Dong, Yang, & Ollendick, 1994). In addition, normative fears follow a predictable course, appearing and disappearing spontaneously (Field & Lawson, 2003) and are, for the most part, short-lived and transitory (Gullone, 2000).

Normal fears have been distinguished from clinical phobias and anxieties on the basis of several criteria, including whether or not the expressed fear is age or stage specific, persists over an extended period of time, whether it significantly interferes with everyday activities or functioning, and whether it leads to avoidance of the feared situation (Ollendick, Hagopian, & King, 1997). People with anxiety disorders tend to overestimate the danger of specifically feared stimulus and underestimate their ability to cope successfully with it (Arntz, 1997). In addition, whereas fears are likely to be intense, brief and in reaction to an identifiable threat, anxiety, on the other hand, is rather an anticipation of a threatening but vague event (Rachman, 1998). Individuals who are more anxious are believed to be more fearful (King & Gullone, 1992). However, it is difficult to distinguish between fear and anxiety in practice and there is no known distinct transition from fear to anxiety (Rachman, 1998). In addition, fears experienced in childhood are so intense that it becomes difficult to separate normal childhood fears from phobias and anxiety reactions (Marks, 1978). Supporting this notion, results from a study by McCathie and Spence (1991) indicated that childhood fears are accompanied by aversive thoughts as well as avoidance behaviour. Thus, for the purposes of the present study, the terms fear and anxiety will be used interchangeably.

The Revised Fear Survey Schedule (FSSC-R) for children is the most widely used instrument employed for the purpose of determining the rank orders and characteristics of childhood fears. Participants are asked to indicate their level of fear to specific stimuli or situations on a 3-point scale (‘none’, ‘some’, ‘a lot’) (Muris, Merckelbach, & Collaris, 1997). The FSSC-R displays a high level of reliability and a moderate level of validity (Ollendick, 1983). Factor analysis derived from normal samples of children in Western countries yielded a 5-factor-solution, namely, Fear of failure and criticism, Fear of the unknown, Fear of injury and small animals, Fear of danger and death, and Medical fears. However, factor analysis conducted on a South African sample yielded the following 5 factors, Fear of danger and death, Fear of failure and criticism, Fear of small animals and the unknown, Medical fears, and Situational fears, such as heights, trains, and airplanes. (Burkhardt et al., 2003). This difference is likely to be accountable to factors such as poorer living conditions, varied cultural and socio-economic backgrounds, and socialization practices and traditions.

An additional and widely used method that is implemented to determine the content of fears in normal samples of children is the Fear List method. Children are asked to simply list their fears. The Fear List displays high levels of face validity, but there is to date little evidence of its reliability and validity (Gullone, 2000). The strength of the Fear list method lies in its simple and straightforward question, namely, "What do you fear most?" This provides a good indication of the stimuli and situations that are actually frightening to children (Muris, Merckelbach, & Collaris, 1997; Muris, Merckelbach et al., 2002). The fear rank orders based on this method in a sample of South African children was as follows: 1) snakes, 2) predators, 3) weapons, 4) crime, 5) death, 6) gangs, 7) spiders, 8) transport, 9) dogs, and 10) crocodiles (Burkhardt, et al., 2003).

The importance of research into normative childhood fears is to "determine its developmental patterns, intensity, and duration against which to identify pathological fear or phobia" (Gullone, 2000, p.430). There are also clear clinical benefits involved. Although childhood fears are believed, for example, to be relatively short-lived, lasting approximately two years, little attention has been paid to the discomfort and distress experienced by children during this period (Ollendick et al., 1997). At the very least, the child may experience problems performing well at school (Angelino, Dollins, & Mech, 1956) or may suffer a significant loss of sleep (Robinson, Edward, & Rotter, 1991) if he or she is emotionally disturbed. There is much evidence suggesting that fears can interfere with a child's daily functioning (Ollendick & King, 1994) and could possibly reflect serious anxiety problems (Muris, Merckelbach, Mayer, & Prins, 2000) as well as cause considerable distress to the child (Dong et al., 1994; Muris, Merckelbach, & Collaris, 1997). Self-reported fears on the FSSC have been found to be directly associated with fearful thoughts and avoidance behaviour (McCathie & Spence, 1991). Positive correlations between anxiety and fear in school children have also been found (Muris, Merckelbach, Mayer et al., 2000; Ollendick, 1983). In addition, highly fearful children were found to possess lower concepts of self and an external locus of control (Ollendick, 1983). This certainly highlights the major mental health concerns that fear-related problems pose (Robinson et al., 1991).

2.1.2 Origin of fears

Individual differences in fearfulness have been observed in children, regardless of fear being considered a normal part of development. Some children display fears of many stimuli and situations, and others very few, almost nothing (Muris, Steerneman, Merckelbach, & Meesters, 1996). Very little is known about the mechanisms or processes responsible for the observed differences in self-reported fears as a function of gender, age, race, or socio-economic status (SES) (Ollendick et al., 1995). The origins of children's fears are complex, involving a combination of genetic, maturational and environmental factors (King, Clowes-Hollins, & Ollendick, 1997). The non-associative perspective on fear-acquisition adopts a Darwinian viewpoint, which maintains that fears are inherent and genetically passed down from generation to generation and are independent of any learning experiences (Menzies & Clarke, 1995). There has been a lot of criticism on this perspective. It fails, for example, to explain why not all people suffer from such fears and phobias (Merckelbach, de Jong, Muris, & Van den Hout, 1996; Merckelbach, Muris, & Schouten, 1996). In addition, such an account leads to an overprediction of the occurrence of fears and phobias in children as well as adults (Merckelbach, de Jong et al., 1996). The present study thus adopted an associative perspective, maintaining that learning experiences and environmental factors significantly contribute to the acquisition of childhood fears. Rachman's (1977) three pathways theory of fear acquisition suggests three types of learning experiences that play a vital role in the development of childhood fears, namely 1) aversive classical conditioning, 2) vicarious acquisition (modelling), and 3) the transmission of negative information and /or instruction. Classical conditioning occurs when the potentially phobic stimulus is experienced in conjunction with another genuinely frightening or painful situation. Vicarious acquisition (modelling) occurs when another significant person is seen showing distress and/or fear towards the feared stimulus. Negative information/instruction occurs when the association of the feared stimulus with danger is acquired via pictures or words, not direct experience (Graham & Gaffan, 1997). An important limitation inherent in past studies conducted on the origins of childhood fears is that questions asked were limited to whether children had experienced conditioning, modelling, or negative information in connection with the stated fear stimulus or situation. The role that the three pathways

played in the onset and the severity of fears failed to be explored with the exception of a study carried out by Muris, Merckelbach, & Collaris (1997). In this study children were asked whether they had experienced any of the three pathways in connection with their fear, to what extent the experience intensified their fear, and finally, whether it actually played a role in the onset of the fear.

The role that the three pathways play in the *experience* of participants' fears, in *intensifying* their fears, as well as in the *onset* of their fears was explored in the present study in order to apply this more stringent definition to a South African context. In order to determine the role that the three pathways played in the experience of the participants' fears, separate questions were asked pertaining to conditioning, modelling, and negative information/instruction, for example, "Did you have a bad or frightening experience with…?" After this the role of the three pathways in intensifying participants' fears was determined by asking, "Did this cause you to be more fearful?". The role that the three pathways played in the onset of participants' fear was determined by asking, "How did your fear…begin?"

2.1.3. Middle-childhood

The period known as 'middle-childhood' constitutes approximately the sixth to twelfth years of life (Louw, Van Ede, & Louw, 1998). The present study collected data from children in grade 5 and grade 7, falling between the ages of 10 and 14 years, currently attending primary school in the Stellenbosch area. Most of South Africa's school-going children are in primary school and therefore fall within the period of middle-childhood (Louw et al., 1998). Thus, it is clearly necessary to address this specific period of childhood development.

2.1.4 Age

The present study compared the distribution of the three pathways among children in grade 5 (with a mean age of 11.09 years) and grade 7 (with a mean age of 12.79 years). The basis for this distinction lies in the fact that the two age groups are likely to

experience different levels (Ollendick & King, 1991) and content (Miller, 1983) of fears. The study by Ollendick and King (1991) found that children aged 9 to 11 years more frequently endorsed modelling and instructional pathways than did children aged 12 to 14 years.

2.1.5 Gender

It appears as though previous research has found girls to be more fearful than boys (Burkhardt et al., 2003; King et al., 1988; Ollendick & King, 1991). Thus, the present study explored the distribution of the three pathways across the two gender groups, hoping to possibly shed light on this phenomenon. In the study by Ollendick and King (1991), boys reported more direct or vicarious experiences than girls did. The latter reported more fears originating through the instructional/informational pathway. It was reported that these differences could be due to socialisation practices and/or real differences between girls and boys with regard to fear acquisition.

2.1.6. Socio-economic status (SES)

Muris, Schmidt et al. (2002) found higher levels of anxiety disorder symptoms as classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM IV) of the American Psychiatric Association (APA) (1994) among coloured and black South African children as compared to the white children in the same sample. Burkhardt et al. (2003) suggest that black Xhosa speaking children in the Western Cape, South Africa (who are generally from lower socio-economic backgrounds than the white children) experience higher levels of fear due, possibly, to their poorer living conditions. The sample used in the present study was divided into three socio-economic levels according to the zone in which the school attended by the children was situated. The greater Stellenbosch area was divided into these zones in a study carried out by the Department of Sociology of Stellenbosch University (1995). The present study thus explored the distribution of the three pathways across the three socio-economic groups (low, middle, high) in order to expand on the findings of Burkhardt et al. (2003).

2.1.7 Culture

Helman (1994) defines culture as a

> Set of guidelines (both explicit and implicit) which individuals inherit as members of a particular society, and which tells them how to view the world, how to experience it emotionally, and how to behave in it in relation to other people, to supernatural forces or gods, and to the natural environment. It also provides them with a way of transmitting these guidelines to the next generation – by the use of symbols, language, art and ritual. (p.2-3)

The interpretations of these guidelines change over time within the context of different circumstances, thus culture cannot be viewed as being static in nature (Swartz, 1998). Cross-cultural studies are imperative in establishing whether reported findings based on normative fear research are universal and can be generalised to other populations (Gullone, 2000). Few studies have examined the origins of childhood fears across cultures. Ollendick and King (1991) compared Australian and American nationalities with regard to the different pathways, but found no significant differences, partly due to similar cultural experiences. South Africa provides an ideal environment in which to carry out such a cross-cultural study, due to the diversity of cultures found in any given geographical area. The present study explored the distribution of the three pathways across the three main cultural groups in the Western Cape, South Africa, namely, black mother tongue Xhosa speaking children, coloured children, and white children. [1] A translator was available during the data collection phase in the event that language difficulties should arise. The terms "black", "coloured", and "white" were used to acknowledge differences that persist as a result of South Africa's racialised history, and not as a means of labelling participants. For the purposes of the present study, participants were therefore divided into ethnic/cultural groups, representative of the main groups found in the Western Cape, South Africa (Loxton, 2004).

[1] The distinction is based on perceived cultural differences between races that still prevail today, but were mostly dominant during the apartheid era. Although the terms "black", "coloured", and "white" may be viewed as controversial, the intention, however, is not to discriminate in anyway, but merely to formulate a basis with which to distinguish and compare cultural groups. The terms will thus be used descriptively, and in the context explained.

2.2 The origin of fears in middle-childhood: prominent theoretical perspectives

The origin of children's fears are complex, involving a combination of genetic, maturational, and environmental factors (King et al., 1998) and remains a perplexing issue for researchers and therapists alike (King, Gullone, & Ollendick, 1998). The following popular theoretical perspectives each provide their own unique explanation for how children acquire certain pathological fears.

2.2.1 Systems theory

Systems theories, also known as contextual models, concern themselves with the effects of a broad range of biological, physical, and sociocultural settings regarding development. Theorists acknowledge that children live in vastly different circumstances and experience a number of overlapping contexts. These include innate predispositions equipping individual children to learn; the environment of the immediate family, including economic resources, emotional atmosphere, number of siblings, space and privacy; physical surroundings, including job opportunities, access to schools, and political systems, as well as the culture of the specific community of which the child is part and that influences the way that the child is reared (Bukatko & Daehler, 1995). Thus, the systems theory stresses the need to study the development of the child in the context of the everyday environment in which the child grows up, including the home, schools, neighbourhoods and communities (Bukatko & Daehler, 1995; Meyer, Loxton, & Boulter, 1997). Such theories view children as active, rather than passive participants in creating their own environment. In addition, children's subjective experiences of their surroundings and relationships are equally as important as the objective aspects of their environment (Hetherington & Parke, 1993).

One of the major advocates of this approach is Bronfenbrenner (1986) who developed an ecological systems model which emphasises the broad range of situations and contexts each child encounters and their subsequent consequences for development (Bukatko & Daehler, 1995). This model views the child's world as comprising four interrelated levels or systems, namely the Microsystem, the Mesosystem, the Exosystem and the

Macrosystem (Bronfenbrenner, 1986). These levels are best conceptualised as a series of concentric rings, with the child's biological and psychological makeup based on genetic and developmental history found in the centre of these circles (Meyer et al., 1997). This includes inherited and biologically based factors, cognitive capacities, as well as socio-emotional and motivational propensities for acting up, interacting with and responding to the environment (Bukatko & Daehler, 1995).

The Microsystem is made up of the child's immediate physical and social environment (Meyer et al., 1997), in other words, this refers to the actual systems within which the child lives and interacts with others (Hetherington & Parke, 1993) and includes the home and members of its household; social and educational settings such as classmates, teachers, and classroom resources; neighbourhoods, comprising physical layouts, friends, and acquaintances, as well as the workplace (Bukatko & Daehler, 1995). The nature of the Microsystem changes throughout development. For example, the family and home play central roles during infancy, whereas the school and peer groups are likely additional focuses during middle-childhood and adolescence (Hetherington & Parke, 1993). Fears can therefore originate during this time period in a variety of these additional settings as the child continues to expand the immediate contexts within which learning and socialisation take place.

The Mesosystem refers to the environment that is a product of the interrelations among contexts of the Microsystems in which the child actively participates. For children this would entail the interactions between the Microsystems of home, school and peer group, but can also include, for example, expectations and events within the family that influence the child's opportunities and experiences in school as well as the consequences of parental divorce for the child with regard to commuting between two households (Bukatko & Daehler, 1995; Hetherington & Parke, 1993). "It is evident that the child's interaction on the mesosystem level has the potential to provide stimuli for childhood fears, such as school phobia" (Shand, cited in Loxton, 2004, p. 60).

The Exosystem constitutes the broader social, economic, political and religious conditions in which the child takes no immediate part, but nevertheless directly impacts

those who interact with the child and thus influences his or her development (Bukatko & Daehler, 1995; Meyer, et al., 1997). Prime examples include the workplace of parents, the local school board, or the zoning commission (Hetherington & Parke, 1993), but perhaps, the most relevant example is the influence of the media, especially television, that exerts a definite influence on children's fears (Cantor & Hoffner, cited in Loxton, 2004).

The Macrosystem incorporates the general beliefs, attitudes, and ideologies promoted and shared by members of a society or culture (Meyer et al., 1997). Examples include natural disasters and wars as well as cultural beliefs regarding child rearing; the role of family and schools in education, and ethical and moral conventions of a society which formulate guidelines and dictate what is to be deemed acceptable and desirable (Bukatko & Daehler, 1995). An appropriate South African example is the shortage of mental-heath services available to children in South Africa. This level acknowledges that different cultures and countries and different subcultures within a country can be distinguished by broad patterns of beliefs and ideology (Hetherington & Parke, 1993).

2.2.1.1 Conclusion

The significance of Bronfenbrenner's (1986) model lies therein that it stresses the importance of analysing the relationship between the child and the various systems themselves. It emphasizes that the ecology of the child is never static; highlighting that development incorporates the interaction of an evolving child within an evolving matrix of ecological systems (Hetherington & Parke, 1993). The fears of children are likely to originate from or be influenced by any of the systems on their own, the interaction between these systems, or their interaction with one or more of these systems.

2.2.2 Cognitive-developmental theory

The primary focus of cognitive theory is the structure and development of an individual's thought processes and how those processes in turn affect the individual's understanding of the world (Berger, 2000). Cognitive-developmental theory proclaims "behaviour reflects the emergence of various psychological *structures*, organized units or patterns of

thinking, that influence how the child interprets experience" (Bukatko & Daehler, 1995, p. 48). It is assumed that normal children, despite widely varying experiences, share common mental, emotional and social capabilities (Bukatko & Daehler, 1995).

One of the major and influential pioneers of cognitive-developmental theory was Jean Piaget (1972). Piaget believed that as a children's cognitive system develops their knowledge of the world changes (Miller, 1993). In addition, children actively construct the reality of their world, meaning that they actively interpret and make sense out of the events and information that they come across. The way in which this information is organized is dependent on the child's level of cognitive development (Hetherington & Parke, 1993).

Piaget (1972) believed that cognitive development proceeds through a series of stages which are defined as "a period of time in which the child's thinking and behaviour in a variety of situations reflect a particular type of underlying mental structure" (Miller, 1993, p.38). The cognitive distortions that characterise the earlier developmental periods, namely the Sensorimotor period and the Preoperational period, are more or less corrected during middle-childhood, when the child's basic understanding of his or her social and physical environment begins to resemble that of an adult. Fears thus begin to become more realistic, with, for example, the fear of traffic accidents and fires increasing and the fear of such imaginary stimuli such as ghosts decreasing (Wenar, 1994). According to Piaget (1972) the third stage of development, the Concrete Operational period, occurs roughly from the age of 7 years through to the age of 11 years, making it one of the most applicable periods for the purposes of the present study. During this stage, cognitive operations permit logical reasoning about experiences. Thus, the child is able to interpret experiences objectively and rationally rather than intuitively. An operation is an internalised action that forms part of an organized structure. Piaget (1972) used a diagnostic tool, conservation, to illustrate the internal operations children acquire during this stage (Berger, 2000; Bukatko & Daehler, 1995; Miller, 1993). Conservation tasks test children's understanding that physical quantities such as volume, weight, and mass remain constant, regardless of changes in the appearance of their quantities (Butterworth & Harris, 1994). Mental operations that children develop include reversibility,

compensation, addition-subtraction, class-inclusion, relations, and temporal-spatial representations (Berger, 2000; Bukatko & Daeler, 1995; Miller, 1993). Egocentric thought, that characterises the previous stage, is replaced by operational thought by means of which a wide array of information outside of the child is dealt with (Sadock & Sadock, 2003). Typical achievements during this stage include the application of logical abilities in order to understand basic scientific concepts (Berger, 2000), explaining why children's fears become more realistic during this stage (Wenar, 1994). The fourth and final stage is the Formal Operational period, occurring roughly from the age of 11 years and older, thus also falling within the period of middle-childhood and rendering it applicable to the present study. During this stage, children learn to think abstractly and about hypothetical concepts. Typical achievements during this stage include the ability to imagine and reason about hypothetical outcomes and develop an interest in abstract issues such as religion, politics, ethics, and other social issues and in turn be able to consider and systematically evaluate such issues (Berger, 2000; Bukatko & Daehler, 1995; Miller, 1993).

Piaget sought to apply his theory of cognitive development to aspects of social knowledge. He viewed children's rule-governed role games as central to the development of social order and morality. This enables children to learn to subordinate their own wishes and behaviour to those of the social group (Butterworth & Harris, 1994). During middle-childhood (concrete operational period) children become increasingly aware of the social relationships inherent in the family, peer group, and society in general, and they begin to consider intentions in their moral judgements (Miller, 1993). They also gain an awareness of social rules that govern the expression of emotions, such as fear, and are able to attribute such emotions to internal causes (Van der Zanden, cited in Louw et al., 1998)

An important point illustrated by the above descriptions of each stage, is that Piaget viewed intellectual development as an evolutionary process, whereby later stages succeed earlier stages as they are more adaptive and thus more adequate regarding the demands of reality (Butterworth & Harris, 1994).

2.2.2.1 Conclusion

According to the cognitive theory, fears during middle-childhood arise from the child's increasing ability to understand its social and physical environment. Yet, despite its applicability, Piaget's research was conducted mostly on Swiss children, which raises the question of how applicable his theory is within a South African context (Louw et al., 1998).

2.2.3 Psychodynamic theory

Psychodynamic approaches believe childhood psychopathology to be determined by underlying unconscious and conscious conflicts (Lesser, 1972). The approach is often used interchangeably with psychoanalytic theories that view human development in terms of intrinsic drives and motives, which are often irrational and unconscious (Berger, 2000). According to this perspective, fearfulness and anxiety can originate from unresolved conflicts (Erikson, cited in Craig, 1996).

2.2.3.1 Psychoanalytic perspective (Freud)

Psychoanalytic and psychodynamic thought originated in the works of Sigmund Freud. Freud proposed a psychosexual theory of development stating that various aspects of an individual's personality originate in early childhood sexuality (Bukatko & Daehler, 1995). He labelled the sources of the sexual instincts the erogenous zones of the body. Sexual instincts based on the erogenous zones and the focus of gratification vary from one body part to the next throughout the stages of development, ceasing around the age of 5 or 6, by when Freud believed the basic personality structure of the child to be formed (Buck, 1988). Both normal and abnormal behaviour have their roots in this period. The patterns for later learning, social adjustment and coping with anxiety are set during the early interactions between children's drives and their social environment (Miller, 1993). It is necessary that infants find other objects in their social environment with which to reduce the tension of satisfying the aims of their instincts, as the original objects of the sexual instincts cannot be used to satisfy the aims of the instinct in an acceptable way

(Buck, 1988). It is only possible for balanced, reality-orientated development to take place when a proper resolution of the interaction between the biological drives and the environment take place. Unbalanced development occurs in conjunction with conflicts and fixations and manifests itself in psychological disturbances, which either lie latent or develop into personality or behavioural disorders (Reber & Reber, 2001), including anxiety-based disorders. Freud distinguished between five distinct stages, namely the oral stage, which covers the first year of life; the anal stage, which occurs during the third of year of life; the phallic stage, which occurs from the third to the fifth year of life; the latency stage; which ranges from 6 years of age until approximately puberty; and lastly the genital stage, which starts during puberty and lasts the rest of an individual's life. Movement from stage to stage is biologically determined, thus movement to the next stage occurs regardless of whether there is unfinished business in the previous stage (Miller, 1993).

Freud maintained that, during middle-childhood, the child enters a latency period, which lasts approximately until the onset of puberty. This is a period of relative quiescence or inactivity of the sexual drive and it is at this point in development that Freud feels that the basic personality has been formed. The purpose of this stage is, for the most part, to repress reminders of the fears, conflicts and desires that dominated the previous phallic stage. In doing so children avoid relationships with peers of the opposite sex and become intensely involved with same-sex peers which results in a consolidation of sex-role identity and sex roles (Buck, 1988; Hetherington & Parke, 1993; Sadock & Sadock, 2003). For the first time children begin to turn away from the family and expand their world to include peer groups, teachers, neighbours, and coaches and, in doing so, develop important social skills, cognitive skills and assimilate cultural values while the ego and superego continue to develop (Hetherington & Parke, 1993; Miller, 1993). Although all of the stages are primarily biologically determined, Freud stressed the influence of the environment that also plays a critical role in normal progression through the stages. If a lack of opportunity to have needs sufficiently met with or adequately expressed is experienced, this can have severe, negative consequences, influencing the way the child relates to others and feelings of self-worth (Bukatko & Daehler, 1995). During middle-childhood, however, sexual and aggressive impulses are limited to activity in the

unconscious (Bukatko & Daehler, 1995). Thus dysfunctional fears experienced during middle-childhood are likely to originate from unresolved, unconscious (usually psychosexual) impulses or conflicts.

2.2.3.2 Psychosocial developmental perspective (Erikson)

Erik Erikson, a student of Freud's and a neo-Freudian, formulated his own version of psychoanalysis. His stages encompass the full lifespan while devoting more attention to cultural rather than biological influences on development (Berger, 2000; Hetherington & Parke, 1993). Erikson divided the entire lifecycle into eight distinct 'ages of man'. The stages describe eight critical periods during which various lifelong ego conflicts or crises reach a climax (Miller, 1993). He describes two extreme resolutions to each crisis, but realised that there is a wide range of outcomes between the two extremes and stressed that the best resolution to each crisis is neither of these extremes but, rather, a middle course (Berger, 2000).

Erikson's fourth stage of development, extending from age 6 through to puberty is the most applicable stage regarding the present study. The child needs to develop a sense of industry versus inferiority. It is at this stage that children enter school and are exposed to the technology of their society, such as books, television and other media, art, and computers. A significant amount of learning takes place takes place at home, at friend's homes, as well as on the street (Miller, 1993). In this way, children begin to learn to extend learned skills to the wider culture (Bukatko & Daehler, 1995) and to be competent and productive (Berger, 2000). Success in these domains gives the child a sense of industry; a feeling of mastery and competence, while failing to do so brings about a sense of inadequacy and inferiority (Miller, 1993).

2.2.3.3 Conclusion

New fears easily arise as the child engages in a variety of new learning experiences, and can originate from any of the above-mentioned sources, such as new friends made or the various forms of media children are continuously exposed to. If the child does not learn

to industriously cope with such fears, a sense of inferiority or inadequacy may develop, which in turn provides a breeding ground for the development of future fears and anxieties. According to Erikson, anxiety and fearfulness would thus likely originate from unresolved (usually psychosocial) conflicts.

2.2.4. Social learning theory

Behaviourism and the learning theories that followed arose from a need to study psychology more objectively and scientifically. It was believed that studying actual behaviour, rather than unconscious motives and drives, would make this possible (Berger, 2000).

The version of learning theory that exerts the most influence over current developmental thinking and research is the social learning theory (Miller, 1993). This theory postulates that children are able to learn through observation and imitation of others' (called 'models') behaviours and not only through processes of classical and operant conditioning (Berger, 2000; Bukatko & Daehler, 1995; Hetherington & Parke, 1993). Social learning theorists emphasise observational learning or modelling by means of which new behaviours can be learned simply by listening to and watching other people (Bukatko & Daehler, 1995). Generally, modelling of a particular behaviour is more likely to occur if the observer is uncertain or inexperienced and when the model is of the same sex as the observer and of a high prestige (Bandura & Walters, 1963). Models that have been rewarding to the child in the past, such as parents or older siblings, are more likely to be imitated (Miller, 1993). During middle-childhood, especially, children become increasingly able to incorporate the perspectives of others (Fields & Prinz, 1997), rendering them especially susceptible to acquiring the same fears possessed by significant others.

Bandura conducted a series of studies in which children watched an adult kick, punch, and pummel a large inflated bobo doll. When given a chance to play with the doll themselves, they were more aggressive than children who had not been exposed to the aggressive adult model. In addition, the children exposed to the model accurately

reproduced some of his more bizarre and novel responses. These studies provided strong support for observational learning and learning can take place in the absence of reinforcers being delivered to either the model or the observer (Hetherington & Parke, 1993). In the same way that the children were able to model anger responses and behaviour, it would certainly be possible for them to acquire fearful responses and behaviours through a similar process.

On the other hand, social learning contributes as well to the conception of vicarious reinforcement. It asserts that observing others being rewarded or punished for a particular form of behaviour imparts to children that the behaviour is either desirable or undesirable respectively in that situation and therefore encourages them to or discourages them to initiate that specific behaviour (Miller, 1993). Many complex social activities are also learned through primarily observing others, such as acquisition of gender roles, prosocial responses (for example, the willingness to assist others), resistance to temptation, and various facets of moral development (Bukatko & Daehler, 1995). However, children do not imitate all behaviour they observe. Mediating factors in the relationship include their personalities and past experiences, the situational context involved and their relationship with the model. More recently theorists have emphasised the role of cognitive factors such as whether the child can remember the behaviour the model displayed and the use of active strategies such as rehearsal, organization and recall (Hetherington & Parke, 1993).

It is important to note that children do not always immediately reproduce the observed behaviour and may store it for future use. This has significant implications concerning television shows featuring fearful or anxious models that are watched by children. This point in particular is of importance in the light of preventative purposes, where such a possible source of childhood fears can be addressed and the consequences thereof prevented, or at least lessened to a significant degree. In addition, unlike other learning theories, social learning theory views children as active agents in their environment and are, through their behaviour, able to significantly change their environment (Miller, 1993).

Certain theorist adopt what is know as a non-associative perspective on fear acquisition which adopts Darwin's standpoint that fear is "independent of experience and can be regarded as either innate (i.e. present at birth) or requiring only development of the nervous system to a particular stage" (Menzies & Clarke, 1995, p.38). For example, at birth, infants readily startle to noise and any unexpected stimulus that is intense, novel or sudden and typically develop a fear of strangers between the ages of 6 to 12 months (Marks, 1978). It therefore claims that fears of things such as water, height, separation, spiders, and strangers are "evolutionary relevant fears that occur without critical learning experiences involving these feared objects" (Muris, Merckelbach et al., 2002, p.186). Fears of certain stimuli that are much more feared than others are said to have special evolutionary significance for the species (Marks, 1978) with most members of the species showing fear towards this stimulus on their first encounter. These fears are believed to diminish naturally through habituation or safe exposure (Menzies & Clarke, 1993). A certain degree of fear towards stimuli such as heights, darkness, strangers, deep water, separation from parents, and certain animals represent genuine threats to either humans or their ancestors and these fear experiences ultimately promote survival (Graham & Gaffan, 1997).

A theory related to the non-associative account of fear acquisition is the preparedness theory that argues that certain fears and phobias are to an extent biologically pre-programmed and considers the highly selective nature of stimuli that elicit fearful and phobic reactions as well as the striking similarity of children's fears and the fact that they are age-related. Seligman (cited in King et al., 1988) argues that due to selection processes, certain stimuli such as the dark and water, transform more easily into phobic stimuli than others. The reasoning behind this is that these fears seem to have represented real, long-standing dangers to our prehistoric ancestors (Menzies & Clarke, 1995).

There has been much critique on the non-associative perspective, for example, it fails to explain why not all people suffer from such fears and phobias (Merckelbach, de Jong et al., 1996; Merckelbach, Muris et al., 1996) and it does not seem plausible that a fear of, for example, spiders be necessary for survival of a species when only about 0.1% of the 35 000 spider varieties are actually dangerous (Renner, cited in Merckelbach, de Jong et

al., 1996). In addition, such an account leads to an overprediction of the occurrence of fears and phobias in children and adults, especially when one considers the minority that actually develop specific fears (Merckelbach, de Jong et al., 1996). It also capitalises on negative findings, in that it's proof lies in the failure to document learning experiences such as conditioning and modelling in the history of phobic children (Muris, Merckelbach et al., 2002). In a study carried out by Muris, Merckelbach, Meesters et al. (1997) 'bombing attacks/being invaded' and 'being hit by a car or truck' were found to be the top two fears in a sample of 394 Dutch primary school children who completed the FSSC-R. Such evolutionary-relevant stimulus seems highly incompatible with a Darwinian approach. In a further study carried out by Field, Argyris, and Knowles (2001) a novel stimulus (two fictitious animal dolls that were not representative of any existing creature) was presented to children aged between 7 and 9 years of age. Verbal information given to the children influenced their beliefs towards the stimulus, that could not possibly have any evolutionary significance as the dolls were not real and the children had never been exposed to them before.

For the reasons above, the present study adopted an associative perspective, maintaining that learning experiences and environmental factors significantly contribute to the acquisition of childhood fears. Twin data collected by Kendler, Neale, Kessler, Heath, and Eaves (cited in Muris, Merckelbach et al., 2002) indicated that specific phobias, relative to other anxiety disorders, have the lowest habitability and highest specific environmental influences, and are seemingly incompatible with the evolutionary non-associative approach. They rather seem to support the behaviouristic associative approach. Although genetics undoubtedly play a role, what ultimately determines whether normative fears develop into persistent fears, or even phobias, depends primarily on experience (Field & Lawson, 2003). As such, Rachman's (1977) three pathways theory suggests three types of learning experiences that play a vital role in the development of childhood fears, namely 1) aversive classical conditioning, 2) vicarious acquisition (modelling), and 3) the transmission of negative information and/or instruction.

2.2.4.1 Conclusion

The social learning perspective plays a central role in the present study. As a theoretical framework, it plays a significant role in explaining and elucidating the acquisition of childhood fears and phobias. It also provides a possible explanation pertaining to differences within the independent variables, such as gender, that has been consistently found in past research.

2.2.5 Rachman's three pathways theory

As to the environmental contribution towards fear acquisition, Rachman (1977, 1990, 1998) established that fears can be acquired either directly, that means through learning processes such as Conditioning, or indirectly, in other words, through Vicarious exposures or through the transmission of Information or Instruction. This influential theory has been shown to be involved in the etiology of childhood fears and phobias in a number of studies (e.g. Muris, Merckelbach, & Collaris, 1997; Ollendick & King, 1991). The present study explored the role of these three pathways in *connection* to participants' fears, in *intensifying* their fears, as well as in the actual *onset* of their fears, by asking questions such as "Did you have a bad or frightening experience with…?"; "Did this cause you to be more fearful?"; and "How did your fear of…begin?".

2.2.5.1 Aversive classical conditioning

Rachman (1977; 1990) states that if a neutral stimulus is associated with a fearful or painful state of affairs, the stimulus develops fearful qualities, i.e. it becomes a conditioned fear stimulus (CS). The intensity of the fear or pain experienced as well as the number of repetitions of the association between the stimuli and the fearful or painful experience determines the strength of the fear. In addition, stimuli that represent the original fear-evoking ones develop fearful properties and become the secondary CS. Objects or situations develop motivating properties or secondary fear drives once they acquire fear-provoking qualities. As a result, escape or avoidance behaviours, which successfully reduce the fear, increase in strength. These behavioural patterns prevent

extinction from occurring and thus play a role in the maintenance of the fear. (King et al., 1988). A central premise of the conditioning theory is that of equipotentiality, which assumes that all neutral stimuli have an equal chance of transforming into a fear signal (King et al., 1988). The probability of fear developing is increased by confinement, exposure to high intensity pain or fear and the new CS (Rachman, 1998). Evidence to support the conditioning theory was obtained from five main sources, namely, fear induction research on animals, anxiety development in combat soldiers, fear induction research on a small number of children, clinical observations, for example, dental phobics, and finally, clinical experiments on the effects of traumatic stimulation (Rachman, 1977; 1990).

The arguments against the acceptance of the conditioning theory as the sole explanation of fear acquisition are as follows:

> People fail to acquire fears in what would be fear conditioning situations, such as air raids; it is difficult to produce stable conditioned fear reactions in human subjects, even under controlled laboratory conditions; the conditioning theory rests on the untenable equipotentiality premise; the distribution of fears in normal and neurotic populations is difficult to reconcile with the conditioning theory; a significant number of people with phobias recount histories that cannot be accommodated by the theory; fears can be acquired indirectly or vicariously; and fears can be acquired even when the causal critical events are temporally separated (Rachman, 1998, p.78)

Thus, Rachman (1977; 1990; 1991) emphasised the roles of vicarious acquisition (modelling) and the transmission of information/instruction in addition to direct conditioning in the acquisition of childhood fears. Muris, Merckelbach, & Collaris (1997) found that the majority of children reported that conditioning experiences intensified their fear as well as marked the onset of it.

2.2.5.2. Vicarious acquisition (modelling)

The modelling pathway proposes that fears can be acquired by watching others react fearfully or distressfully towards a given phobic stimulus (Graham & Gaffan, 1997; Merckelbach, de Jong et al., 1996). The work of Bandura made it clear that much of our behaviour, including emotional responses, is acquired by vicarious learning experiences,

especially through the processes of observational learning and modelling (Rachman, 1977; 1998). Previous research provides support for this pathway in that subjects claim to fear objects and situations which they have never encountered as well as demonstrating the therapeutic effectiveness of modelling with fearful or phobic children (Rachman, 1977).

2.2.5.3 Negative information/instruction

This pathway involves the acquirement of an association between a phobic stimulus and danger through words or pictures (Graham & Gaffan, 1997). According to King et al. (1988) it is far more likely that a child will be exposed to the experiences and attitudes of family members than they will have the opportunity of immediate observation since this is usually limited. Information-giving is an inherent and unavoidable facet of child-rearing, especially during the early years of childhood, and it also provides support for the fact that people are afraid of objects and situations never before encountered by them (Rachman, 1977). It has been suggested that the expectation of danger or fear as conveyed by means of parents' jokes and conversation actually play a large role in children's fears of spiders and dentists (King et al., 1988).

Through such information or instruction we learn not only what to fear, but also which objects and situations are not dangerous and therefore need not be feared (Rachman, 1977). This specific pathway is especially useful in a South African context as it is widely used in prevention programmes concerning HIV/Aids where sources such as television and books are used to spread fear over stimuli implicated in the causes thereof. Such an approach has proved successful as social psychological studies have shown that more value is assigned by subjects to negative information than to positive information (Merckelbach, de Jong et al., 1996) with negative information increasing fear levels, while positive information generally decreases fear levels (Muris et al., 2003). However, Field, Hamilton, Knowles, and Plews (2003) found negative information about public speaking to reduce fear beliefs, whereas positive information increased them. In a study carried out by Field and Lawson (2003) 59 British children aged between 6 and 9 years of age were given negative, positive, and no information about three fictitious animals. They

found that fear information not only affected self-report measures of fear beliefs but also resulted in behavioural avoidance of the animal. Muris, Merckelbach, & Collaris (1997) found the negative information/instruction pathway to be the most dominant pathway in *connection* to reported fears, with 87.8% of the children reporting that they had heard frightening things regarding their most feared stimulus or situation.

2.2.5.4. Previous research on the three pathways of fear acquisition.

Much of the previous research conducted on Rachman's three pathways theory in relation to the origin of childhood fears has been retrospective in nature and therefore subject to several biases, for example, memory distortions or recall bias (Field & Lawson, 2003; Merckelbach, de Jong et al., 1996). In many studies data was for instance collected from subjects sometimes up to 10 or 20 years after the actual onset of their fears. (Ollendick & King, 1991). Data collected regarding the experiences of normal samples (Field et al., 2001) is furthermore lacking, in addition to samples representing a variety of cultures. As such, the present study collected data directly from children who formed a normal sample that had been drawn from three of the main cultural groups found in the Western Cape, South Africa.

A study carried out by Ollendick and King (1991) was one of the first prospective studies on the acquisition of childhood fears. One thousand and ninety two Australian and American children and adolescents were tested. In this study the majority of children attributed their fears to vicarious acquisition and instructional factors. Eight hundred and ninety five low-income American children and their mothers took part in a study by Milgrom, Mancl, King, and Weinstein (1995) on the origins of childhood dental fears and it was found that conditioning and parental modelling factors were significant predictors of fear levels. King et al. (1997) conducted a survey among the parents of thirty dog-phobic children who were on the waiting list of a university-based clinic. The study found that parents could attribute their child's acquisition of dog phobia to at least one of the fear pathways, with modelling being the most dominant. Muris, Merckelbach, & Collaris (1997) tested and interviewed 129 Dutch children and found conditioning to generally be the most common pathway in their prospective study of common childhood fears and

their origins. Information experiences were found to be the most prominent pathway that played a role in connection to the children's' fears. Conditioning was found to be the most prominent pathway to play a role in intensifying the children's fears and in the onset of their fears. A later study carried out by Muris, Merckelbach, Gadet et al. (2000) investigating the content, developmental pattern, and origins of anxiety symptoms contained a sample of 190 normal school children aged between 4 and 12 years and they reported information to be the most common pathway for their top intense fear. Muris, Merckelbach, Ollendick, King, & Bogie (2001) interviewed 176 Dutch children and their parents in order to inquire about the origins of childhood nighttime fears. In this study, the majority of children attributed their fear to the transmission of negative information. The effectiveness of negative information in increasing fear levels in children was demonstrated in studies carried out both by Field, et al. (2001, 2003) and Muris et al. (2003). In the study by Field et al. (2001) two novel stimuli in the form of two monsters were presented to 40 British children using video information and verbal information. Verbal information and not video information significantly changed fear related beliefs about the monsters. In the study by Muris et al. (2003) 285 children aged between four and twelve received either positive or negative fear information about an unknown dog-like animal named 'the beast'. Negative information was shown to increase fear levels directly after the experiment and after a follow up period of 1 week, whereas positive information decreased fear levels.

Much of the above research was conducted within a Western culture, thus the present study sought to expand these findings within a South African context, testing the theory's applicability across first world and developing nations.

2.3. The relationship between the severity of fears and Rachman's three pathways of fear acquisition.

Rachman (1977) states that intense or severe fears of biological significance are likely to originate through the conditioning process, whereas less severe fears or more common everyday fears are likely to originate through vicarious exposure (modelling) and the transmission of negative information and/or instruction. Studies carried out by King et al.

(1997), Milgrom et al. (1995), and Muris, Merckelbach, & Collaris (1997) confirm this hypothesis. Rachman (1977; 1990) speculated that phobias acquired through direct conditioning would consist of predominately physiological and behavioural components with subjective aspects playing a minor role, whereas fears acquired through the indirect pathways would consist predominantly of subjective aspects, with physiological and behavioural components playing a minor role. Although it is believed that direct conditioning experiences are more common than the indirect pathways, King et al. (1988) believe that childhood fears need to be viewed differently as a variety of behaviours and attributes are unavoidably and consistently taught to children during these informative years. Ollendick and King (1991) found that children with high fear levels more frequently endorsed direct conditioning events, however many highly fearful subjects reported indirect pathways of fear acquisition in the forms of modelling and fear information. In contrast, Ollendick et al. (1997) found no significance between the frequencies of the pathways as sole sources endorsed by highly fearful subjects as well as subjects whose fear levels were low. Highly fearful subjects rather endorsed a combination of modelling plus information/instruction and direct conditioning plus modelling plus information/instruction. Withers and Dean (1995) found that subjects were equally likely to endorse their most-feared and least-feared stimulus to the direct conditioning pathway, thus not supporting Rachman's (1977) hypothesis. Such inconsistent results warrant further research.

2.4. The sources of the indirect pathways of fear acquisition

2.4.1 The sources of vicarious acquisition (modelling)

Many studies have provided evidence for the implication of modelling in the development of childhood fears, yet relatively few studies have inquired about the actors or sources of the modelling process (Muris et al., 1996). Gosser (1995) believes that everyone in the child's environment, such as parents, siblings, peers, and caregivers are potential models.

In the study by King et al. (1997) on dog phobic children, parents were found to be the most important source of modelling. Many of the parents themselves reported still being scared or nervous when in the presence of dogs. A significant positive relationship was also found between fearfulness of the child and fearfulness of the mother as measured by the FSSC, while controlling for factors such as age, sex, and trait anxiety of the child, as well as trait anxiety of the mother. Evidence in the study showed that modelling mediated this relationship and a stepwise regression analysis indicated that a significant proportion of the variance of children's fearfulness can be accounted for by the mother's expression of fear. In a study conducted on children and adults with a fear of water, Graham and Gaffan (1997) found that children who were currently fearful of water or who indicated that they were losing their fear were more likely to have parents or older siblings with poor water competence than those children indicating no fear of water. In addition, highly fearful adults reported that their parents had also been fearful of water. Studies conducted over 60 years ago on fears developed during air-raids showed a strong correlation between fears of mother and child (John, cited in Rachman, 1977) and fears among combat airmen who had observed a fellow crewman express intense fear (Grinker & Spiegel, cited in Rachman, 1977). Finally, Milgrom et al. (1995) found that children who had a guardian with moderate/high dental fear were twice as likely to be afraid of the dentist as children who had a guardian who experienced low dental fear.

2.4.2. The sources of negative information/instruction

According to Crosser (1995) fears can be born of cultural norms and taboos, learned at home and in the neighbourhood, through religion, the community, and society. She illustrates the point with an example of mainstream American cultural in which boys are taught gender stereotypes which limit the expression of certain fears, whereas some native American cultures promote the expression of fears among their male members.
A study carried out by Pickersgill, Valentine, Pincus, and Foustok (1999) yielded a strong significant correlation between girl's fearfulness and mother's fearfulness. They concluded in relation to this that "the effect of the mother's fearfulness is one of communication to the child of what is threatening" (Pickersgill et al., 1999, p. 760).

Verbal information from sources such as significant others, books or television have proved especially useful for the purpose of prevention programmes, aimed at generating fear of certain behaviours such as smoking or risky sexual behaviours (Merckelbach, de Jong et al., 1996). Field et al. (2003) found that information given on public speaking affected fear beliefs only when given by a peer. In a study carried out on children's nighttime fears, Muris et al. (2001) found that 77.5% of the children who participated attributed their fear to negative information, with the chief source being television. Lastly, Field et al. (2001) found that verbal information significantly changed fear beliefs in children aged between 7 and 9 years old only when the information came from an adult (teacher or stranger) rather than a same-aged peer.

2.5. Age and middle-childhood fears

From the age of 7 years children enter what Piaget termed the concrete operational stage. During this stage, children become increasingly able to infer physical cause-effect relationships and are able to anticipate possible negative outcomes, as their range of fear-provoking stimuli is broadened (Muris, Merckelbach, Gadet et al., 2000). As they become older, children's perceptions of reality become less imaginary and fears thus become more realistic, developing from global fears of ghosts and monsters to more realistic and specific fears such as bodily injury and physical danger. This pattern can also be explained by the fact that older children have developed a more elaborate system of verbal symbols, which aid in understanding reality and identifying specific sources of fear (Bauer, 1976).

It is clear that similar patterns of fear are experienced within each developmental stage, with children aged between 1 to 2 years experiencing concrete and immediate fears, children aged 4 to 8 years experiencing anticipatory or imaginary fears, and children aged 9 and older beginning to experience more realistic fears such as injury, failure and social criticism (Bouldin & Pratt, 1988). Generally, fears related to animals, darkness and imaginary creatures decline with age, while fears related to school and social fears increase with age (Graziano, DeGiovanni, & Garcia, 1979). Therefore, during middle-childhood specifically, fears continue to become more realistic, fears of bodily injury and

failure increase, and fears of ghosts, etcetera, decrease, while fears of a more irrational nature, for example of mice and fictional characters, are still somewhat present. (Wenar, 1994). Fears related to current events such as war and AIDS also begin to emerge (Robinson et al., 1991).

In general, older children and adolescents tend to report fewer fears as well as lower levels of fear than younger children. This trend has been illustrated in a number of studies (for instance Elbedour, Shulman & Kedem, 1997; King et al., 1989; King & Gullone, 1992; Ollendick et al., 1985; Ollendick & King, 1994). A study conducted by Gullone and King (1993) found that younger children, aged 7 to 10 years, reported a higher intensity as well as a greater number of fears than children aged between 11 and 14 years and adolescents aged between 15 and 18 years. The same study found middle-childhood children, those ranging between the ages of 11 and 14 years of age, to report the highest levels of fear related to failure and criticism. Ollendick, Yang, King, Dong & Akande (1996) confirmed this trend only among American and Australian samples, whereas Chinese children aged between 10 and 13 years reported a greater number of fears and a higher level of fear than younger children and older adolescents. Nigerian children and adolescents were found to report a similar number of fears and level of fear across all age groups. Dong et al. (1994) suggest that the findings among the Chinese sample can possibly be explained by the increased level of concern and worry associated with performing well experienced at this specific time at school due to Chinese child-rearing and educational practices. Evidently, cultural factors play an important mediating role.

With regard to the origin of childhood fears, Ollendick and King (1991) found that significantly more preadolescents (9 to 11 years of age) reported vicarious/modelling experiences than did adolescents (12 to 14 years of age). The same trend was found for the information/instructional pathway, however this effect was not significant. Muris, Merckelbach, Gadet et al. (2000) found no age differences in describing the origins of fears in terms of the three pathways. Muris et al. (2003) also found no significant age differences in children's susceptibility to the influence of either negative or positive fear information regarding an unknown dog-like animal called 'the beast'.

The specific age group targeted in the present study comprises the period during which intervention strategies are thought to be most effective. Miller, Barret, Hampe & Noble (cited in Robinsen et al., 1991) found that the greatest success rate among children who were experiencing fear-related problems was for 6- to 10-year-olds followed by 11- and 12-year-olds. They found that the success rate decreased dramatically after 13 years of age. It is thus hoped that the findings of the present study, conducted among 10- to 14-year-olds will be especially useful in the development of intervention programmes.

2.6. Gender and middle-childhood fears

Previous literature has shown girls to report more fears than boys (Gullone, 2000; Marks, 1978). Examples include a study carried out by King et al. (1989) who tested over 3 000 Australian children aged between 8 and 16 years and found girls to report more fears than boys on all five factors of the FSSC-R. A study carried out by Ollendick et al. (1985) tested 126 children using the FSSC-R and found girls to report significantly more fears than boys with means of $\bar{x}$ = 16.14 and $\bar{x}$ = 8.28 respectively. In a cross-cultural study carried out by Ollendick et al. (1996) American, Australian and Chinese girls reported more fears than their male counterparts, however Nigerian girls and boys reported a similar number and level of fears. Elbedour et al. (1997) administered the FSSC-R to 865 Israeli Jewish and Israeli Bedouin children aged between 8 and 12 years old. They too found girls to report a higher level of fear as well as more fears than boys. The content of fears appears to differ across gender groups as well, as illustrated in studies conducted by Gullone and King (1993) who found girls to score higher on items such as snakes, spiders, rats, being alone, creepy houses and having bad dreams, and Bouldin and Pratt (1998) who found girls to experience higher levels of fearfulness on items of the animal fears and vulnerability fears than boys.

Gender differences regarding number of fears and level of fear have been challenged on the grounds that it is possible that boys are reporting in accord with certain gender expectations influenced by gender-role stereotyping (Gullone, 2000; Gullone & King, 1993; King et al., 1989). It is possible as well that girls are even positively reinforced, more so than boys, for reporting their inner fears and worries (Morris & Kratochwill,

cited in Dong et al., 1994). McFarlane, Allen, Hinzik (cited in Marks, 1987) found that differences in fear levels between males and females to only emerge after the age of 11, when boys display a rapid loss of most fears. Thus, no sex differences were found to exist until children enter the period of approximately middle childhood. However, Muris, Merckelbach, Gadet et al. (2000) found no sex differences related to the severity of fears and thus concluded that the developmental pattern of fears were similar among boys and girls.

As to the origins of children's fears, Ollendick and King (1991) found boys to attribute the onset of their fear to the conditioning and modelling pathways significantly more so than girls. Girls attributed the onset of their fear to the informational/instructional pathway more so than boys, but not significantly so. It was possible in this study for participants to endorse more than one pathway, and boys chose significantly more pathways than did girls. Again, it is uncertain whether such findings are due to socialisation practices or are in fact real differences in fear acquisition. Both Muris et al. (2003) and Field and Lawson (2003) found the effects of fear information to be the same for males and females.

2.7. Socio-economic status (SES) and middle-childhood fears

Past research has shown childhood fears to be related to socio-economic background (Burkhardt, 2002). A study conducted on 1 100 school pupils aged between 9 and 18 years showed that boys from a lower socio-economic area expressed violence-related fears, especially for stimuli such as robbers and guns, as well as for their parents, whereas boys from a higher socio-economic area stated being afraid of car accidents and storms as well as more tenuous phenomena, for example, being hurt or getting killed. Meanwhile, in the same study, girls from a lower socio-economic area expressed more fears of animals, strangers, being alone at night, acts of violence and drunks, while girls from a higher socio-economic group expressed fears for the likes of heights, kidnappers, roller coasters, pets, safety, and getting hurt while playing hockey. It was thus concluded that children from lower socio-economic areas express more safety-related fears than children from higher socio-economic areas (Angelino et al., 1956). Sidana (1975) determined a

family's SES by considering the economic, educational and occupational background of the parents involved. They found that children aged 6, 8 and 10 years from lower socio-economic had higher total mean fear scores than children from middle or high socio-economic groups. He concluded that this is possibly due to the generalised sense of helplessness experienced by children from lower socio-economic areas or differing child-rearing practices. Graziano et al. (1979) believe that children from lower socio-economic groups fear what they do as they perceive their immediate environment to be more hostile and dangerous than do children from middle or higher socio-economic groups and so it is often found that children from lower socio-economic groups report more fears that are specific rather than generic.

Within a South African context, Muris, Schmidt et al. (2002) administered two anxiety questionnaires, namely the Spence Children's Anxiety Scale (SCAS) and the Screen for Child Anxiety Related Emotional Disorders (SCARED) to over 600 children with a mean age of 10 years from four South African schools in the Stellenbosch area and gained socio-economic information on the children from school management on a confidential basis. They found that the children from a middle-high socio-economic background reported significantly lower anxiety levels than children from low, low-middle, and middle socio-economic backgrounds. Such findings seem to suggest that fears originate largely in the socio-economic area in which the child develops, and this dictates to which fearful stimuli the child and its significant others are exposed. The present study aimed to further clarify the effects of SES on the acquisition of South African children's fears.

2.8. Culture and middle-childhood fears

A growing body of literature suggests that cultural factors, along with a specific culture's beliefs, values and traditions, influence patterns of childhood psychopathology (Ingman, Ollendick & Akande, 1999) and more specifically contribute to the structure of children's fears (Tikalsky & Wallace, 1988). This highlights the importance of examining fear phenomena in non-Western societies, such as South Africa, which has been relatively unexplored (Muris, Schmidt et al., 2002).

Children possess a unique ability to accommodate to the culture in which they are brought up and as such "children's fears reflect something of their understanding of the world and their place in it" (Elbedour et al., 1997, p. 491). This is shaped largely by their culture. It is believed that cultures favouring inhibition, compliance and obedience (Ingman et al., 1999, or placing a strong emphasis on community (Ebedour et al., 1997) promote heightened levels of fear among their children. For example, in a study carried out by Elbedour et al. (1997) children from a Bedouin culture, which place a strong emphasis on community, were found to report a higher level of fear and more fears than Jewish children, whose fear patterns and intensity closely resembled those of Western cultures. Ingman et al. (1999) found Kenyan and Nigerian children, who come from cultures emphasising obedience, self-control, compliance and emotional constraint, displayed higher fear scores than typically found in Western countries, such as the United States, Great Britain, and Australia. Ollendick et al. (1996) found Nigerian and Chinese children, who share similar cultural values, to report higher levels of social-evaluative and safety fears as compared to American and Australian children.

Ollendick and King (1991) compared reports of origins of childhood fears between Australian and American children, but found no differences for any of the three fear pathways reported by children in these countries. However, this is likely due to the similar cultural experiences within these two countries.

Within a South African context, white South African children have been found to display lower anxiety levels (Muris, Schmidt et al., 2002) and fear levels (Burkhardt et al., 2003) than coloured or black South African children. This is probably due to the likelihood that most white children in South Africa have been raised according to cultural values strongly resembling those of Western countries. However, regardless of intercultural disparities, South African children in general possess higher anxiety levels than Western children due likely to circumstances unique to their culture such as the recently abolished apartheid system.

Therefore, to conclude this chapter, Rachman's (1977, 1991) three pathways theory formed the basis for the design and interpretation of the present study. His theory was

used in order to establish the origins of South African children's fears, as well as to determine the distribution of the three pathways, Conditioning, Modelling, and Negative Information, across the independent variables, age, gender, SES and culture.

CHAPTER 3

METHODOLOGY

3.1. Participants

The final sample consisted of 660 middle-childhood children, attending four regular state schools in the immediate Stellenbosch area. The children attended grades 5 (n = 294) and 7 (n = 366) and fell between the ages of 10 and 14 years. The original sample consisted of 739 participants but questionnaires that were less than 80% completed were excluded (n = 25) as well as children above the age of 14 years (n = 54). Table 1 shows the demographic characteristics of middle-childhood South African children from the four schools that participated in this particular study.

Table 1

Demographic Characteristics of Middle-childhood South African Children in the Present Sample

	Total Sample	School 1	School 2	School 3	School 4
N (%)	660 (100%)	158 (23.9%)	176 (26.7%)	167 (25.3%)	159 (24.1%)
Gender					
Boys	311 (47.1%)	74 (46.8%)	86 (48.9%)	86 (52.5%)	65 (40.9%)
Girls	345 (52.3%)	83 (52.5%)	89 (50.6%)	79 (47.3%)	94 (59.1%)
Missing values	4 (0.6%)	1 (0.6%)	1 (0.6%)	2 (1.2%)	0 (0%)
Age					
10	70 (10.6%)	8 (5.1%)	23 (13.1%)	18 (10.8%)	21 (13.2%)
11	165 (25.0%)	30 (19.0%)	28 (15.9%)	55 (32.9%)	52 (32.7%)
12	159 (24.1%)	30 (19.0%)	56 (31.8%)	43 (25.7%)	30 (18.9%)
13	202 (30.6%)	55 (34.8%)	43 (24.4%)	51 (30.5%)	53 (33.3%)
14	64 (9.7%)	35 (22.2%)	26 (14.8%)	0 (0%)	3 (1.9%)

Table 1 (Continued)

	Total Sample	School 1	School 2	School 3	School 4
Grade					
5	294 (44.5%)	85 (53.8%)	61 (34.7%)	76 (45.5%)	72 (45.3%)
7	366 (55.5%)	73 (46.2%)	115 (65.3%)	91 (54.5%)	87 (54.7%)
Race/culture					
Black	182 (27.6%)	157 (99.4%)	15 (8.5	2 (1.	8 (5.
White	270 (40.9%)	(	7 (4.	142 (85.0%)	121 (76.1%)
Coloured	203 (30.8%)	(	150 (85.2%)	23 (13.8%	30 (18.9%
Missing values	5 (0.8%)	1 (0.	4 (2.	(	0
SES					
Low	158 (23.9%)	158 (100%	(	(	0
Middle	176 (26.7%)	(	176 (100%	(	0
High	326 (49.4%)	(	(	167 (100%	159 (100%
Language spoken at home					
Afrikaans	326 (49.4%)	1 (0.	162 (92.0%)	144 (86.2%)	19 (11.9%
English	108 (16.4%)	5 (3.	(	2 (1.	101 (63.5%)
Xhosa	154 (23.3%)	146 (92.4%)	6 (3.	1 (0.	1 (0.
Korean	4 (0.	(	(	(	4 (2.
Russian	1 (0.	(	(	(	1 (0.
German	3 (0.	(	(	(	3 (1.
Setswana	1 (0.	(	(	(	1 (0.
Missing values	63 (9.5	6 (3.	8 (4.	20 (12.0%	29 (18.2%
Language spoken at school					
Afrikaans	343 (52%	2 (1.	175 (99.4%)	165 (98.8%)	1 (0.6%)
English	214 (32.3%)	54 (3	0 (0%)	2 (1.2%)	158 (99.4%)
Xhosa	103 (15.6%)	102 (64.6%)	1 (0.6%)	0 (0%)	0 (0%)

The schools were chosen to represent the main cultural groups in the Western Cape, South Africa, namely black children (n = 182), coloured children (n = 203), and white

children (n = 270). Five (0.8%) children did not indicate to which cultural group they belonged. In order to enhance the representativeness and generalisability of the study, the schools were also chosen to represent various socio-economic areas, namely low (n = 158), middle (n = 176), and high (n = 326). This categorisation was carried out according to the zone in which the school attended by the children was situated. The greater Stellenbosch area was divided into these zones in a study carried out by the Department of Sociology of Stellenbosch University (1995). The participants included 311 boys and 345 girls, with 4 (0.6%) participants failing to indicate their gender. School 1 was attended mostly by black Xhosa-speaking children of a low socio-economic status, school 2 was attended mostly by coloured Afrikaans-speaking children of a middle socio-economic status, school 3 was attended mostly by white Afrikaans-speaking children of a high socio-economic status, while school 4 was attended mostly by white English-speaking children of a high socio-economic status.

As a matter of interest, statistical analyses were conducted to determine whether the cultural groups differed with respect to age, gender and socio-economic status. Regarding gender, no statistically significant differences were found, $\chi 2$ (2) = 0.90, p = .956. However, analysis of variance (ANOVA) revealed that cultural groups did differ according to age F (2, 652) = 16.049, p < .001 and socio-economic status F (2, 652) = 1193.814, p < .001. Post hoc tests showed that the age differences were mainly due to the fact that black children (mean age:12.42, *SD* 1.2, range 10-14 years) were significantly older than the coloured children (mean age: 12.00, *SD* 1.19, range 10-14 years), the mean difference being: .4225, *SE* = .12236, p < .01, and the white children (mean age: 11.8, *SD* 1.06, range 10-14 years), the mean difference being: .6176, *SE* = .11031, p < 0.1. All three cultural groups differed significantly from each other with regard to SES, with the mean difference between black and coloured children being 1.0688, *SE* = .04920, p < 0.1, the mean difference between black and white children being 1.7818, *SE* = 0.3949, p < 0.1, and mean differences between coloured and white children being .7130, *SE* = .03239, p < 0.1.

3.2. Research design

The present study is cross-sectional in design, obtaining normative data that was collected from the sample at one point in time only. The data collection phase was conducted in English and Afrikaans, as these are the official languages of instruction at the particular schools. However, a translator was available at school 1, as the mother tongue of most of the children was Xhosa, and language problems were foreseen. The researcher was present at all times. Research assistants were selected and trained by the researcher.

Data collected was mainly of a quantitative nature and no manipulation occurred. The participants completed two questionnaires altogether, namely a short biographical questionnaire and the Free Option List (FOL).

3.3 Measuring instruments

3.3.1 Biographical Questionnaire

Participants were asked to fill in a short biographical questionnaire, pertaining to their name, age, grade attending, gender, language spoken at home and language of instruction (see Addendum E). Information obtained from the biographical questionnaire, constituted the independent variables of the study. The questionnaire was clear and easily administrated. The researcher as, well as research assistants, were present at all times during the administration of the questionnaire to ensure clarity.

3.3.2. Free Option List (FOL)

The Fear Option List consists of twelve questions. The questionnaire, constructed by the researcher, begins by listing the ten most common fears of all South African children, as found in Burkhardt's (2002) study on fears experienced by middle-childhood South African children, and measured by the Free Option Method (FOM) (see Addendum F, question 1). Burkhardt's (2002) study was carried out in the same geographical area as the present study. The remainder of the questionnaire sets out to determine the origins of what Burkhardt (2002) established as the most common fears experienced by this group

of children. The participants were firstly asked to choose the *one* phenomenon that they fear most. However, provision was made for the inclusion of any fears that the participants may experience and that were not included in Burkhardt's (2002) list by adding a category 'other'. Severity was determined by asking the participants to state whether they were 1 = a little bit scared or 2 = very scared of the phenomena (see Addendum F, question 2).

Next, the participants had to answer questions 3 to 11 (see Addendum F) pertaining to Rachman's three pathways of fear acquisition. The questions are based on Muris, Merckelbach, & Collaris (1997) study on common childhood fears and their origins and include separate questions on **conditioning**, **modelling**, and **negative information**/instruction respectively. For example, "Did you have a bad or frightening experience with…?", "Did this cause you to be more fearful?" (Muris, Merckelbach & Collaris, 1997, p.931). In addition the children were asked to what extent the three pathways played a role in the onset of their fear by asking how their fear of… began (see Addendum F, question 11). The study by Muris, Merckelbach & Collaris (1997) was used because of their strict definitions of the three pathways. In other words, it was not only determined whether the children experienced one of the three pathways *in relation* to their fear, but also if the pathway actually played a role in *intensifying* their fear and in the *onset* of their fear. In addition, questions were added inquiring into the sources of vicarious learning (modelling) and negative information/instruction as origins of fears (see Addendum F, questions 6 and 9). In order to normalise the fear scenario, question 12 (see Addendum F) was aimed at countering any potential discomfort participants may have experienced while answering the questionnaire. A great deal of effort was made to ensure that the questionnaire was as child-friendly as possible. In case any confusion was experienced among the young participants, the researcher and trained assistants were available to explain uncertain terms or instructions at all times during the data collection phase.

3.4. Procedure

Once approval had been obtained from the Western Cape Education Department (WCED) (see Addendum B), principals from the four selected primary schools were approached and permission was obtained to test the grade 5s and 7s at each school (see Addendum C). Testing took place between May and July 2004. For practical reasons, and as preferred by the respective school principals, assessment at schools 1 and 2 (attended mostly by coloured and black students) took place in the classrooms, while assessment at schools 3 and 4 (attended mostly by white students) took place in the school hall and were assessed per grade.

Before each testing session the researchers explained the purpose of the assessment and ensured that the participants understood the data collected would be anonymous and confidential. It was also made clear to them that they were under no obligation to comply with or participate in the assessment. Based on such information, informed consent was obtained from each participant in writing. American Psychological Association [APA] (2001) guidelines pertaining to ethical standards were strictly adhered to in the present study. The children were motivated as well before the testing began, by explaining to them the important role they were playing and how much they were contributing to helping other children like them. It was emphasised that the participants had to answer the questionnaires independently and honestly, and they were reassured that there were no correct or incorrect answers.

The Biographical Questionnaire (Addendum E) was administered first. The present researcher read through the questionnaire with the participants to ensure clarity. After which, the FOL (Addendum F) was administered. Again, the researcher read through the first three questions of the questionnaire with the participants, in order to ensure that the participants clearly understood what was expected of them. This was the procedure followed at all of the schools, except school 1, where it became apparent that the level of language proficiency among the children, who were native Xhosa speakers, was lower than what had been originally expected. Therefore, in order to compensate, a Xhosa speaker, who had an Honours degree in Psychology and experience in working with

children, read each item on every questionnaire orally during the assessment sessions. Testing at school 1 thus took approximately one hour per classroom, while testing at school 2 took approximately half an hour per classroom, and testing at schools 3 and 4 took roughly half an hour per grade.

Once data collection was completed, the questionnaires were classified according to valid and invalid categories. Those questionnaires that were less than 80% completed were discarded (n = 25) as well as the questionnaires of participants who were older than 14 years of age and thus did not fit into the required age range (n = 54), rendering the final sample size 660 children.

3.5 Statistical analysis

The Statistical Package for the Social Sciences (SPSS) (2001) was used in order to conduct all statistical analyses. Descriptive statistics and frequency tables were used to assess the origins of middle-childhood fears according to Rachman's (1977) three pathways theory. Descriptive statistics, cross tabulations and chi square analyses were used in order to evaluate the distribution of the three pathways across the four independent variables of age, gender, SES and culture. Cross tabulations and chi square analyses were used in order to examine the relationships between the three pathways and the severity of fears. Finally, descriptive statistics and frequency tables were used to determine the sources of vicarious acquisition (modelling) and negative information. The level of significance for all statistical analyses was set at 0.5. Experts from Maastricht University, the Netherlands, Prof Peter Muris, and statistician, Dr Nick Broers, were consulted between October and December 2004 with regard to the statistical analysis for the present study.

CHAPTER 4

RESULTS

For the purposes of this chapter, the results pertaining to the content, severity and origin of the present sample's fears were examined in terms of the four independent variables, namely, Age, Gender, Socio-economic Status and Culture.

4.1. Fear content of middle-childhood South African children

Participants were asked to choose one fear stimulus that they feared the most from a list of ten adapted from Burkhardt's (2002) study exploring the content of fears experienced among middle-childhood South African children. A category labelled 'other' was added in order to make provision for any additional fears that were not included in the list. When compared to Burkhardt's (2002) study, the present study found a similar pattern of fears experienced among the children with one exception. A fear of rape was included in the present study's top ten fears, while a fear of transport was excluded, which was found to be the eighth most common fear in Burkhardt's (2002) study. A lesser percentage of children reported fears of snakes, predators, weapons, crime, gangs, spiders, transport, and dogs in the present study, while a higher percentage reported fears of death and crocodiles (see Table 2). The percentages in Burkhardt's (2002) study do not add up to 100 as the instructions to the respondents in her study allowed them to name more than one fear, whereas respondents in the present study were instructed to name the one stimulus they feared most.

Table 2

Fear Content of Middle-childhood South African Children as Compared to Burkhardt's (2002) Top Ten Fears

Fear	Total Sample - Burkhardt (2002) (n=404) %	Total Sample - Present Study (n=608) %
1. Snakes	45.5	19.5
2. Predators	22.8	7.5
3. Weapons	22.3	4.8
4. Crime	14.1	11.3
5. Death	13.6	24.5
6. Gangs	12.6	5.7
7. Spiders	11.6	5.8
8. Transport	10.9	0.9
9. Dogs	10.6	2.3
10. Crocodiles	8.4	10.9
Other		6.8

* Percentages in Burkhardt's (2002) study do not add up to 100 as participants could name more than one fear.

Table 3

"Other" Fear Content of Middle-childhood South African Children (n = 44)

Fear	Frequency	Percentage
Rape	10	1.5
Heights	4	0.6
Ghosts	4	0.6
Flying	3	0.5
Bees	3	0.5
War	2	0.3
Drowning	2	0.3
Murder	2	0.3
Kidnapping	1	0.2
Hamsters	1	0.2
Being in a forest at night	1	0.2
Cats	1	0.2
Mice	1	0.2
Fire	1	0.2
Lightning	1	0.2
Suspicious people	1	0.2
Lose parents	1	0.2
Baboons	1	0.2
Breaking bones	1	0.2
Fleas	1	0.2
Detention	1	0.2
Teacher	1	0.2

The top ten fears of middle-childhood South African children as found in the present study are in order: (1) **Death**, (2) **Snakes**, (3) **Crime**, (4) **Crocodiles**, (5) **Predators**, (6) **Spiders**, (7) **Gangs**, (8) **Weapons**, (9) **Dogs** and (10) **Rape**. Table 4 provides a precise list of the frequencies reported for each fear.

Table 4

The Top Ten Fears of Middle-childhood South African Children According to the Present Study (n=612)

Fear	Frequency	Percentage
1. Death	160	24.2
2. Snakes	127	19.2
3. Crime	74	11.2
4. Crocodiles	71	10.8
5. Predators	49	7.4
6. Spiders	38	5.8
7. Gangs	37	5.6
8. Weapons	31	4.7
9. Dogs	15	2.3
10. Rape	10	1.5

4.1.1 Age

Death was found to be the most prominent fear experienced among all age groups, but especially among the youngest of the participants, with 38.6% of 10-year-olds reporting a fear of death (see Table 5).

Table 5

Top Ten Fear Content of Middle-childhood South African Children (Age)

Fear	10 Years (n = 68)	11 Years (n = 151)	12 Years (n = 148)	13 Years (n = 182)	14 Years (n = 63)
	n (%)	n (%)	n (%)	n (%)	n (%)
1. Death	27 (38.6%)	39 (23.6%)	38 (23.9%)	41 (20.3%)	15 (23.4%)
2. Snakes	15 (21.4%)	32 (19.4%)	31 (19.5%)	39 (19.3%)	10 (15.6%)
3. Crime	6 (8.6%)	17 (10.3%)	23 (14.5%)	25 (12.4%)	3 (4.7%)
4. Crocodiles	3 (4.3%)	22 (13.3%)	14 (8.8%)	19 (9.4%)	13 (20.3%)
5. Predators	4 (5.7%)	16 (9.7%)	5 (3.1%)	15 (7.4%)	9 (14.1%)
6. Spiders	2 (2.9%)	4 (2.4%)	13 (8.2%)	14 (6.9%)	5 (7.8%)
7. Gangs	3 (4.3%)	10 (6.1%)	10 (6.3%)	13 (6.4%)	1 (1.6%)
8. Weapons	6 (8.6%)	8 (4.8%)	8 (5.0%)	5 (2.5%)	4 (6.3%)
9. Dogs	2 (2.9%)	3 (1.8%)	4 (2.5%)	3 (1.5%)	3 (4.7%)
10. Rape	0 (0%)	0 (0%)	2 (1.3%)	8 (4.0%)	0 (0%)

As the age range of the sample was relatively small, the researcher was advised to compare instead participants attending grade 5 (with a mean age of 11.09) to participants

attending grade 7 (with a mean age of 12.79) (P. Muris, personal communication, October 1, 2004) (see Table 6).

Table 6

Top Ten Fear Content of Middle-childhood South African Children (Grade)

Fear	Grade 5 (n = 275)	Grade 7 (n = 337)	χ 2	df	p
	n (%)	n (%)			
1. Death	75(25.5%)	85 (23.2%)	.464	1	.496
2. Snakes	67 (22.8%)	60 (16.4%)	4.292	1	.038*
3. Crime	24 (8.2%)	50 (13.7%)	4.950	1	.026*
4. Crocodiles	32 (10.9%)	39 (10.7%)	.009	1	.925
5. Predators	22 (7.5%)	27 (7.4%)	.003	1	.959
6. Spiders	15 (5.1%)	23 (6.3%)	.420	1	.517
7. Gangs	14 (4.8%)	23 (6.3%)	.714	1	.398
8. Weapons	18 (6.1%)	13 (3.6%)	2.407	1	.121
9. Dogs	7 (2.4%)	8 (2.2%)	.028	1	.867
10. Rape	1 (0.3%)	9 (2.5%)	4.905	1	.027*

* p< ,05

Children attending **Grade 5** reported significantly more fears of **Snakes** ($\chi 2(1) = 4.22$, $p < .05$) than the **Grade 7** pupils, while children attending **Grade 7** reported significantly more fears of **Crime** ($\chi 2(1) = 4.950$, $p < .05$)and **Rape** ($\chi 2$ (1) = 4.905, $p < .05$) than **Grade 5** pupils. In addition, there was a trend, albeit non-significant, for **Grade 5s** to report more fears of **Death**, **Crocodiles**, **Predators**, **Weapons** and **Dogs** and **Grade 7s** to report more fears of **Spiders** and **Gangs.** Thus, for the most part, **Grade 5s** seemed to experience more animal fears, while **Grade 7s** tended to report more fears related to danger.

4.1.2. Gender

Table 7

Top Ten Fear Content of Middle-childhood South African Children (gender)

Fear	Boys (n = 279)	Girls (n = 329)	χ^2	df	p
	n (%)	n (%)			
1. Death	56 (18.0%)	102 (29.6%)	11.951	1	.001**
2. Snakes	60 (19.3%)	67 (19.4%)	.002	1	.967
3. Crime	25 (8.0%)	48 (13.9%)	5.707	1	.017*
4. Crocodiles	46 (14.8%)	25 (7.2%)	9.646	1	.002**
5. Predators	26 (8.4%)	23 (6.7%)	.679	1	.410
6. Spiders	20 (6.4%)	18 (5.2%)	.441	1	.506
7. Gangs	21 (6.8%)	16 (4.6%)	1.374	1	.241
8. Weapons	15 (4.8%)	15 (4.3%)	.085	1	.771
9. Dogs	7 (2.3%)	8 (2.3%)	.003	1	.954
10. Rape	3 (1.0%)	7 (2.0%)	1.234	1	.267

* p < ,05
** p < ,01

Girls reported significantly more fear for phenomena such as **Death** ($\chi^2(1) = 11.951$, $p<.01$) and **Crime** ($\chi^2(1) = 5.707$, $p<.05$) than **Boys**, while **Boys** report significantly more fear for **Crocodiles** ($\chi^2(1) = 9.646$, $p< .01$) than **Girls** (see Table 5). In addition, a trend was found for **Girls** to report more fear of **Rape** than **Boys,** and **Boys** to report more fears of **Predators**, **Spiders** and **Gangs**. Fears of **Snakes**, **Dogs** and **Weapons** were more or less equally distributed across the two gender groups.

4.1.3. Socio-economic Status

Table 8

Top Ten Fear Content of Middle-childhood South African Children (SES)

Fear	Low SES (n = 153)	Middle SES (n = 173)	High SES (n = 286)	χ 2	df	p
	n (%)	n (%)	n (%)			
1. Death	23 (14.6%)	42 (23.9%)	95 (29.1%)	12.344	2	.002**
2. Snakes	47 (29.7%)	52 (29.5%)	28 (8.6%)	47.052	2	.000**
3. Crime	3 (1.9%)	20 (11.4%)	51 (15.5%)	20.203	2	.000**
4. Crocodiles	33 (20.9%)	20 (11.4%)	18 (5.5%)	26.261	2	.000**
5. Predators	19 (12.0%)	9 (5.1%)	21 (6.4%)	6.692	2	.035*
6. Spiders	13 (8.2%)	5 (2.8%)	20 (6.1%)	4.622	2	.099
7. Gangs	3 (1.9%)	2 (1.1%)	32 (9.8%)	21.667	2	.000**
8. Weapons	4 (2.5%)	17 (9.7%)	10 (3.1%)	13.270	2	.001**
9. Dogs	7 (4.4%)	6 (3.4%)	2 (0.6%)	8.376	2	.015*
10. Rape	1 (0.6%)	0 (0%)	9 (2.8%)	6.921	2	.031*

* p < ,05
** p < ,01

Significant differences were found between the three **socio-economic** groups, namely **Low**, **Middle** and **High**, for fears of **Death** (χ2 (2) = 12.344, p<.01), **Snakes** (χ2 (2) = 47.052, p<.01), **Crime** (χ2 (2) = 20.203, p<.01), **Crocodiles** (χ2 (2) = 26.261, p<.01), **Predators** (χ2 (2) = 6.92, p<.05), **Gangs** (χ2 (2) = 21.667, p<.01), **Weapons** (χ2 (2) = 13.270, p<.01), **Dogs** (χ2 (2) = 8.376, p<.05) and finally **Rape** (χ2 (2) = 6.921, p<.05).

Post hoc analysis revealed that the main differences for a fear of **Death** lay most significantly between the **Low** and **High** socio-economic groups (χ2 (1) = 12.278, p<.01), but also between the **Low** and **Middle** socio-economic groups (χ2 (1) = 4.601, p<.05), with the **Low** socio-economic group experiencing significantly less fear of **Death**.

The main differences for a fear of **Snakes** lay between the **Low** and **High** socio-economic groups (χ2 (1) = 36.381, p< .01) and the **Middle** and **High** socio-economic groups (χ2 (1) = 37.469, p<.01), with the **High** socio-economic group experiencing significantly less fear of **Snakes** than the other two groups.

The main differences for a fear of **Crime** lay between the **Low** and **High** socio-economic groups ($\chi 2$ (1) = 20.285, p<.01) and the **Low** and **Middle** socio-economic groups ($\chi 2$ (1) = 11.632, p<.01), with the **Low** socio-economic group experiencing significantly less fear of **Crime** than the other two groups.

The main differences for a fear of **Crocodiles** lay between the **Low** and **High** socio-economic groups ($\chi 2$ (1) = 26.650, p<.01), between the **Low** and **Middle** socio-economic groups ($\chi 2$ (1) = 5.6455, p<.05), as well as between the **Middle** and **High** socio-economic groups ($\chi 2$ (1) = 5.575, p<.05) with the **High** socio-economic group experiencing significantly less fear than the other two groups, and the **Low** socio-economic group experiencing significantly more fear of **Crocodiles** than the other two groups and the **Middle** socio-economic groups lying in between the other two groups.

The main differences for a fear of **Predators** were found to lie between the **Low** and **High** socio-economic groups ($\chi 2$ (1) = 4.376, p<.05) as well as the **Low** and **Middle** socio-economic groups ($\chi 2$ (1) = 5.179, p<.05), with the **Low** socio-economic group experiencing significantly more fear than the other two groups.

The main differences for a fear of **Gangs** was found to lie between the **Low** and **High** socio-economic groups ($\chi 2$ (1) = 9.944, p<.01) as well as between the **Middle** and **High** socio-economic groups ($\chi 2$ (1) = 9.758, p<.01), with the **High** socio-economic group experiencing significantly more fear for **Gangs** than the other two groups.

The main differences for a fear of **Weapons** lay between the **Low** and **Middle** socio-economic groups ($\chi 2$ (1) = 7.178, p<.01) and the **Middle** and **High** socio-economic groups ($\chi 2$ (1) = 9.758, p<.01), with the **Middle** socio-economic group experiencing significantly more fear of **Weapons** than the other two groups.

The main differences for a fear of **Dogs** lay between the **Low** and **High** socio-economic groups ($\chi 2$ (1) = 8.496, p<.01) and between the **Middle** and **High** socio-economic groups ($\chi 2$ (1) = 5.696, p<.05), with the **High** socio-economic group experiencing significantly less fear of **Dogs** than the other two groups.

And, lastly, the main differences for a fear of **Rape** lay between the **Middle** and **High** socio-economic groups ($\chi 2$ (1) = 4.948, p<.05), with the **High** socio-economic group experiencing significantly more fear of **Rape** than the other two groups.

4.1.4. Culture

Table 9

Top Ten Fear Content of Middle-childhood South African Children (Culture)

Fear	Black (n = 177)	White (n = 235)	Coloured (n = 195)	χ 2	df	p
	n (%)	n (%)	n (%)			
1. Death	31 (17.0%)	72 (26.7%)	56 (27.6%)	7.224	2	.027*
2. Snakes	55 (30.2%)	25 (9.3%)	45 (22.2%)	32.743	2	.000**
3. Crime	4 (2.2%)	47 (17.4%)	22 (10.8%)	25.424	2	.000**
4. Crocodiles	36 (19.8%)	11 (4.1%)	24 (11.8%)	28.043	2	.000**
5. Predators	22 (12.1%)	14 (5.2%)	12 (5.9%)	8.497	2	.014*
6. Spiders	13 (7.1%)	18 (6.7%)	7 (3.4%)	3.026	2	.220
7. Gangs	3 (1.6%)	27 (10.0%)	7 (3.4%)	16.900	2	.000**
8. Weapons	5 (2.7%)	10 (3.7%)	16 (7.9%)	6.690	2	.035*
9. Dogs	7 (3.8%)	2 (0.7%)	6 (3%)	5.268	2	.072
10. Rape	1 (0.5%)	9 (3.3%)	0 (0%)	10.165	3	.006**

* p < ,05
** p < ,01

Significant differences were found between the three cultural groups, namely **Black, White,** and **Coloured** participants, for fears of **Death** ($\chi 2$ (2) = 7.224, p< .05), **Snakes** ($\chi 2$ (2) = 32.743, p<.01), **Crime** ($\chi 2$ (2) = 25.424, p< .01), **Crocodiles** ($\chi 2$ (2) = 28.043), p< .01), **Predators** ($\chi 2$ (2) = 8.497, p< .05), **Gangs** ($\chi 2$ (2) = 16.900, P< .01), **Weapons** ($\chi 2$ (2) = 6.690, p< .05) and **Rape** ($\chi 2$ (2) = 10.165, p< .01).

Post hoc analysis revealed that the main differences for a fear of **Death** lay between the **Black** and **White** participants ($\chi 2$ (1) = 5.735, p<.05) and between **Black** and **Coloured** participants' ($\chi 2$ (1) = 6.110, p<.05), with **Black** participants experiencing significantly less fear than the other two cultural groups.

The main differences for a fear of **Snakes** lay between **White** and **Coloured** participants ($\chi 2$ (1) = 15.313, p<.01) and between **Black** and **White** participants ($\chi 2$ (1) = 32.790, p<.01), with **White** participants experiencing significantly less fear than the other two cultural groups.

The main differences for a fear of **Crime** lay between **Black** and **White** participants ($\chi 2$ (1) = 25.124, p<.01), between **Black** and **Coloured** participants ($\chi 2$ (1) = 11.375, p<.01) as well as between **Coloured** and **White** participants ($\chi 2$ (1) = 4.014, p<.05), with **Black** participants experiencing the least fear, and **White** participants experiencing the most fear.

The main differences for a fear of **Crocodiles** lay between **Black** and **White** participants ($\chi 2$ (1) = 28.785, p<.01), between **Black** and **Coloured** participants ($\chi 2$ (1) = 4.619, p<.05), as well as between **Coloured** and **White** participants ($\chi 2$ (1) = 10.154, p<.01) with **White** participants experiencing the least fear, and **Black** participants experiencing the most fear.

The main differences for a fear of **Predators** lay most significantly between **Black** and **White** participants' ($\chi 2$ (1) = 7.067, p<.01), but also between **Black** and **Coloured** participants, ($\chi 2$ (1) = 4.547, p<.05) with **Black** participants experiencing significantly more fear than the other two cultural groups.

The most significant differences for a fear of **Gangs** lay between **Black** and **White** participants ($\chi 2$ (1) = 12.237, p<.01), but also between **Coloured** and **White** participants ($\chi 2$ (1) = 7.456, p<.01), with **White** participants being significantly more fearful than the other two cultural groups.

The main differences for a fear of **Weapons** lay between **White** and **Coloured** participants ($\chi 2$ (1) = 3.894, p<.05) and between **Black** and **Coloured** participants ($\chi 2$ (1) = 4.906, p<.05), with **Coloured** participants experiencing significantly more fear than the other two cultural groups.

And, finally, the main differences for a fear of **Rape** lay between **Black** and **White** participants ($\chi 2$ (1) = 3.895, p<.05) and between **Coloured** and **White** participants ($\chi 2$ (1) = 6.898, p<.01), with **White** participants experiencing significantly more fear than the other two cultural groups.

4.2. The severity of middle-childhood South African children's fears

Four hundred and fifty participants (68.2%) in the present study indicated that they were highly fearful of their most feared stimulus or situation, while 200 (30.3%) reported experiencing only mild fear levels. Results were examined in terms of Age, Gender, SES and Culture

4.2.1 Age

Table 10

The Severity of Middle-childhood South African Children's Fears (Age)

Severity	Grade 5 (n = 288) n (%)	Grade 7 (n = 362) n (%)	$\chi 2$	df	p
Mild	88 (30.6%)	112 (30.9%)			
High	200 (69.4%)	250 (69.1%)	.011	1	.916

No significant **age** differences between the two groups, namely **Grade 5s** and **Grade 7s**, with regard to the severity of their fears were found, however both grades tended to report high fear levels (69.4% of grade 5's and 69.1% of grade 7's), rather than mild (30.6% grade 5s and 30.9% of grade 7s).

4.2.2. Gender

Table 11

The Severity of Middle-childhood South African Children's Fears (Gender)

Severity	Male (n = 305) n (%)	Female (n = 341) n (%)	χ 2	df	p
Mild	142 (46.6%)	58 (17.0%)			
High	163 (53.4%)	283 (83.0%)	65.765	1	.000*

* p < ,01

Significant **gender** differences (χ2 (1) = 65.765, p<.01) were found with regard to the severity of fear reported. Eighty three percent of the female participants reported experiencing a high level of fear towards their most feared stimuli or situation, whereas only 17% reported being only mildly afraid of their most feared stimulus or situation. Male participants were more or less divided regarding the severity of their fear, with 46.6% reporting to be only mildly fearful and 53.4% reporting a high level of fearfulness towards their most feared stimuli or situation.

4.2.3. Socio-economic status

Table 12

The Severity of Middle-childhood South African Children's Fears (SES)

Severity	Low (n = 155) n (%)	Middle (n = 172) n (%)	High (n = 323) n (%)	χ 2	df	p
Mild	26 (16.8%)	47 (27.3%)	127 (39.3%)			
High	129 (83.2%)	125 (72.7%)	196 (60.7%)	26.293	2	.000*

* p < ,01

Significant differences (χ2 (2) = 26.293, p<.01) were found between the three **socio-economic** groups with regard to the severity of their fear reported, with the majority

(83.2%) of low SES participants' reporting a high level of fear. Although all three groups reported more high levels than mild levels of fear, with 16.8% of the low SES group reporting mild fears and 83.2% reporting a high level of fear, 27.3% of the middle SES group reporting a mild level of fear and 72.7% reporting a high level of fear, and lastly 39.3% of high SES participants reporting a mild level of fear and 60.7% reporting a high level of fear (see Table 15, top). Post hoc analysis revealed that the main differences in levels of fear lay between the **Middle** and **High** SES groups ($\chi 2$ (1) = 7.082, p<.01), between the **Low** and **Middle** SES groups ($\chi 2$ (1) = 5.234, p < .05), and most significantly between the **Low** and **High** SES groups (($\chi 2$ (1) = 24.461, p<.01).

4.2.4. Culture

Table 13

The Severity of Middle-childhood South African Children's Fears (Culture)

Severity	Black (n = 178) n (%)	White (n = 268) n (%)	Coloured (n = 201) n (%)	χ 2	df	p
Mild	31 (17.4%)	106 (39.6%)	61 (30.3%)			
High	147 (82.6%)	162 (60.4%)	140 (69.7%)	24.688	2	.000*

* p < ,01

Significant differences were found between the three **cultural** groups with regard to the severity of their fear reported ($\chi 2$ (2) = 24,688, p < .01), with the majority (82.6%) of **Black** participants' reporting a high level of fear. Although all three groups reported more high levels than mild levels of fear, with 17.4 of the **Black** participants reporting mild fears and 82.6% reporting a high level of fear, 39.6% of the **White** participants reporting a mild level of fear and 60.4% reporting a high level of fear, and lastly 30.3% of the **Coloured** participants reporting a mild level of fear and 69.7% reporting a high level of fear (see Table 16, top). Post hoc analysis revealed that the main differences in level of fear lay between the **White** and **Coloured** participants ($\chi 2$ (1) = 4.244, p<.05), between the **Black** and **Coloured** participants ($\chi 2$ (1) = 8.589, p<.01), and most significantly between the **Black** and **White** participants ($\chi 2$ (1) = 24.628, p<.01).

4.3. Fear acquisition of middle-childhood South African children

Table 13 shows the various pathways of fear acquisition for the whole sample with regard to which of the three pathways were experienced by the participants, to what extent the pathways played a role in intensifying their fears, and to what extent the three pathways played a role in the actual onset of the participants' fears.

Table 14

The Origins of Middle-childhood South African Children's Fears (For All Fears)

	All Fears n (%)
Experiences	
Conditioning experiences	326 (49.4%)
Modelling experiences	497 (75.3%)
Information experiences	445 (67.4%)
Conditioning & Modelling experiences	72 (10.9%)
Conditioning & Information experiences	42 (6.4%)
Modelling & Information experiences	167 (25.3%)
Conditioning & Modelling & Information experiences	185 (28%)
Experience intensifying fear	
Did conditioning cause more fear?	245 (37.1%)
Did modelling cause more fear?	280 (42.4%)
Did information cause more fear?	350 (53.0%)
Onset of fear	
Conditioning	135 (20.5%)
Modelling	125 (18.9%)
Information	196 (29.7%)
Don't know	248 (37.6%)
Conditioning & Modelling	5 (0.8%)
Conditioning & Information	9 (1.4%)
Modelling & Information	4 (0.6%)
Conditioning & Modelling & Information	15 (2.3%)

* Percentages do not add up to 100 as participants could choose more than one pathway.

Tables 15 and 16 shows the mode of acquisition for each of the top 10 fears experienced by the present sample of middle-childhood children.

Table 15

The Origins of Middle-childhood South African Children's Fears (Fears 1-5)

	Death n (%)	Snakes n (%)	Crime n (%)	Crocodiles n (%)	Predators n (%)
Experiences					
Conditioning experiences	75 (46.9%)	79 (62.2%)	34 (45.9%)	30 (42.3%)	18 (36.7%)
Modelling experiences	121 (75.6%)	106 (83.5%)	48 (64.9%)	58 (11.7%)	24 (49.0%)
Information experiences	107 (66.9%)	95 (74.8%)	56 (75.7%)	45 (63.4%)	37 (75.5%)
Experience intensifying fear					
Did conditioning cause more fear?	57 (35.6%)	56 (44.1%)	29 (39.2%)	22 (31.0%)	15 (30.6%)
Did modelling cause more fear?	72 (45.0%)	63 (49.6%)	24 (32.4%)	38 (53.5%)	14 (28.6%)
Did information cause more fear?	86 (53.8%)	73 (57.5%)	45 (60.8%)	38 (53.5%)	27 (55.1%)
Onset of fear					
Conditioning	37 (23.1%)	28 (22.0%)	15 (20.3%)	10 (14.1%)	7 (14.3%)
Modelling	23 (14.4%)	37 (29.1%)	9 (12.2%)	17 (23.9%)	9 (18.5%)
Information	39 (24.4%)	31 (24.4%)	41 (55.4%)	19 (26.8%)	13 (26.5%)
Don't know	67 (41.9%)	49 (38.6%)	12(16.2%)	28 (39.4%)	21 (42.9%)

* Percentages do not add up to 100 as participants could choose more than one pathway

Table 16

The Origins of Middle-childhood South African Children's Fears (Fears 6 -10)

	Spiders N (%)	Gangs n (%)	Weapons n (%)	Dogs n (%)	Rape n (%)
Experiences					
Conditioning experiences	23 (60.5%)	10 (27.0%)	20 (64.5%)	10 (66.7%)	3 (30.0%)
Modelling experiences	31 (81.6%)	32 (86.5%)	24 (77.4%)	12 (80.0%)	7 (70.0%)
Information experiences	13 (34.2%)	25 (67.6%)	21 (67.7%)	7 (46.7%)	10 (100.0%)
Experience intensifying fear					
Did conditioning Cause more fear?	16 (42.1%)	9 (24.3%)	16 (51.6%)	8 (53.3%)	3 (30.0%)
Did modelling cause more fear?	12 (31.6%)	15 (40.5%)	19 (61.3%)	8 (53.3%)	2 (20.0%)
Did information Cause more fear?	10 (26.3%)	21 (56.8%)	15 (48.4%)	4 (26.7%)	9 (90.0%)
Onset of fear					
Conditioning	11 (28.9%)	1 (2.7%)	6 (19.4%)	5 (33.3%)	1 (10.0%)
Modelling	6 (15.8%)	5 (13.5%)	8 (25.8%)	7 (46.7%)	0 (0%)
Information	7 (18.4%)	20 (54.1%)	7 (22.6%)	1 (6.7%)	6 (60.0%)
Don't know	18 (47.4%)	12 (32.4%)	12 (38.7%)	5 (33.3%)	3 (30.0%)

* Percentages do not add up to 100 as participants could choose more than one pathway.

4.3.1 The role of the three pathways in the *experience* of middle-childhood fears

The participants were asked to what extent they had *experienced* the three pathways, namely **Conditioning, Modelling** or **Information** events in connection with their most feared stimuli, situation or phenomenon. Table 14 shows the frequency and percentage of children who reported having *experienced* each of the three pathways in connection to their greatest fear. As can be seen, the majority of participants (75.3%) reported that they knew other people who are also afraid of the same stimuli, situation or phenomenon. In other words, **Modelling** events were mostly *experienced* in connection to participants' greatest fears in general. With regard to each specific fear (see Tables 15 & 16) **Modelling** *experiences* were the most commonly reported pathway experienced in

connection to fears of **Death** (75.6%), **Snakes** (83.5%), **Spiders** (81.6%), **Gangs** (86.5%), **Weapons** (77.4%) and **Dogs** (80.0%). Data analysis revealed eight distinct sources of **vicarious acquisition (Modelling)**, namely, **Peers**; **Family in general**, which includes relatives such as aunts, uncles, cousins, etcetera; **Mother**; **Siblings**; **Father**; **Community**, which includes neighbours, etcetera; **Television**; and finally, **Police**. The most frequently mentioned source by participants was **Peers**, which was mentioned by 23.6% of participants who reported having *experienced* a **Modelling** event in connection to their most feared stimuli or situation (see Table 17).

Table 17

The Sources of Vicarious Acquisition (Modelling)

Sources	Frequency	Percentage
Peers	156	23.6
Family (general)	66	10.0
Mother	39	5.9
Siblings	34	5.2
Father	8	1.2
Community	7	1.1
Television	3	0.5
Police	3	0.5

On the other hand, **Information** *experiences* were the most commonly reported pathway in connection to fears of **Crime** (75.7%), **Crocodiles** (63.4%), **Predators** (75.5%) and **Rape** (100.0%) (see Tables 15 &16). Data analysis revealed 14 distinct sources of **Negative information/instruction**, namely **Television**; **Family in general**, which once again includes family members, such as aunts, uncles and cousins; **Peers**; **Community**; **Mother**; **Print Media**; **Siblings**; **School**; **Father**; **Camp**; **Cinema**; **Bible**; **Internet** and lastly, **Domestic workers**. The most frequently mentioned source by participants was **Television**, which was mentioned by 23.2% of participants who reported having *experienced* an **Information** event in connection to their most feared stimuli or situation (see Table 18).

Table 18

The Sources of Negative Information/Instruction

Sources	Frequency	Percentage
Television	153	23.2
Family (general)	72	10.9
Peers	45	6.8
Community	35	5.3
Mother	30	4.5
Print media	21	3.2
Siblings	12	1.8
School	9	1.4
Father	8	1.2
Camp	6	0.9
Cinema	3	0.5
Bible	1	0.2
Internet	1	0.2
Domestic worker	1	0.2

Conditioning *experiences* were the least frequently reported pathway experienced among all participants in connection to their most feared stimulus or situation.

4.3.2. The role of the three pathways in *intensifying* middle-childhood fears

Participants were asked whether the above-mentioned experience had caused them to be more fearful of their most feared stimulus or situation (and thus played a role in the maintenance of the fear). The percentages of children who reported experiences that had made them more fearful were 37.1% for **Conditioning**, 42.2% for **Modelling** and 53.0% for **Information**. Thus, among the present participants, **Information** experiences played the most prominent role in *intensifying*, and thus maintaining the children's fears. With regard to each specific fear, **Conditioning** experiences *intensified* fears of **Spiders** (42.1%), **Modelling** experiences *intensified* fears of **Weapons** (61.3%), and **Information** experiences *intensified* fears of **Death** (53.8%), **Snakes** (57.5%), **Crime** (60.8%), **Predators** (55.1%), **Gangs** (56.8%) and **Rape** (90.0%). Fears of **Crocodiles** were *intensified* equally by **Modelling** (53.5%) and **Information** experiences (53.5) and fears

of **Dogs** were *intensified* equally by **Conditioning** (53.3%) and **Modelling** (53.3%) experiences (see Tables 15 & 16).

4.3.3. The role of the three pathways in the *onset* of middle-childhood fears

The participants were asked to what extent the three pathways played a role in the actual *onset* of their fear. The majority of participants (37.6%) had no clear idea of how their fear began, while 29.7% of participants attributed the *onset* of their fear to the **Information** pathway, 20.5% attributed the *onset* of their fear to the **Conditioning** pathway, and 18.9% attributed the *onset* of their fear to the **Modelling** pathway. With regard to each specific fear, participants had no clear idea of how their fears of **Death** (41.9%), **Snakes** (38.6%), **Crocodiles** (39.4%), **Predators** (42.9%), **Spiders** (47.4%) and **Weapons** (38.7%) began. However, the *onset* of a fear of **Dogs** (46.7%) was mostly attributed the **Modelling** pathway, and the *onsets* of fears of **Crime** (55.4%), **Gangs** (54.1%) and **Rape** (60%) were mostly attributed to the **Information** pathway. As the focus of the present study is on Rachman's three pathways theory, further analysis on the *onset* of middle-childhood fears will pertain only to the pathways of **Conditioning**, **Modelling**, and **Negative Information**, and will exclude the category "don't know", which implies that the participant has no clear idea of how their fear began (see Tables 15 & 16).

4.4. Age

In order to evaluate age differences with regard to the dependent variables in the present study, the children will be compared according to what grade they attended at the time the study was conducted.

Table 19:

Origins of Middle-childhood Fears Across the Independent Variable Age

	Grade 5 n (%)	Grade 7 n (%)	$\chi 2$	df	p
Experiences					
Conditioning experiences	140 (48.3%)	186 (51.7%)	.739	1	.390
Modelling experiences	215 (73.4%)	282 (77.0%)	1.182	1	.277
Information experiences	197 (68.4%)	248 (69.9%)	.158	1	.691
Experiences intensifying fear					
Did conditioning cause more fear?	101 (34.4%)	144 (40.0%)	2.886	2	.236
Did modelling cause more fear?	134 (46.4%)	146 (41.5%)	5.213	2	.074
Did information cause more fear?	156 (54.4%)	194 (55.0%)	.027	2	.987
Onset of fear					
Conditioning	62 (21.2%)	73 (20.1%)	.138	1	.711
Modelling	55 (18.8%)	70 (19.2%)	.016	1	.898
Information	92 (31.5%)	104 (28.6%)	.666	1	.414

4.4.1. Age differences with regard to the role of the three pathways in the *experience* of middle-childhood fears

The two groups did not differ significantly in their experiences of the three pathways of fear acquisition. Both age groups reported more **Modelling** *experiences* than compared to the other two pathways, with 73.4% of grade 5s and 77.0% of grade 7s having reported *experiencing* **Modelling** events in connection to their most feared stimuli or situation (see table 19, top).

4.4.2. Age differences with regard to the role of the three pathways in *intensifying* middle-childhood fears

No significant differences were found between the two grades with regard to whether **Conditioning** experiences, **Modelling** experiences or **Information** experiences *intensified* the participants' fears. Both groups of participants (54.4% of grade 5s and 55.0% of grade 7s) however endorsed **Information** experiences as the most likely to

cause them more fear and thus play a role in maintaining their fear (see Table 19, middle).

4.4.3. Age differences with regard to the role of the three pathways in the *onset* of middle-childhood fears

Again, no significant differences were found between the participants attending grades 5 and 7 with regard to which pathway they attributed the *onset* of their fear to. However, both groups (31.5% of grade 5s and 28.6% of grade 7s) endorsed the **Information** pathway in contributing to the *onset* of their fear more so than the first two pathways (see Table 19, bottom).

4.5 Gender

Table 20

Origins of Middle-childhood Fears Across the Independent Variable Gender

	Male n (%)	Female n (%)	χ 2	df	p
Experiences					
Conditioning experiences	158 (51.8%)	165 (48.4%)	.752	1	.386
Modelling experiences	230 (74.0%)	263 (76.5%)	.548	1	.459
Information experiences	195 (64.6%)	246 (73.0%)	5.290	1	.021*
Experiences intensifying fear					
Did conditioning cause more fear?	100 (32.7%)	143 (41.6%)	21.000	2	.000**
Did modelling cause more fear?	115 (38.3%)	163 (48.2%)	6.668	2	.036*
Did information cause more fear?	133 (44.3%)	215 (63.8%)	27.856	2	.000**
Onset of fear					
Conditioning	65 (21.0%)	70 (20.4%)	.039	1	.843
Modelling	59 (19.1%)	66 (19.2%)	.002	1	.962
Information	90 (29.1%)	105 (30.6%)	.171	1	.679

***** $p < ,05$
****** $p < ,01$

4.5.1. Gender differences with regard to the role of the three pathways in the *experience* of middle-childhood fears

Significantly more female participants ($\chi 2$ (1) = 5.290, p<.05) were found to have reported **Information** *experiences* in relation to their most feared stimuli or situation. No significant gender differences were found with regard to *experiences* associated to the other two pathways. However, both gender groups reported experiencing mostly **Modelling** events in relation to their fear, with 74% of the male participants and 76.5% of female participants endorsing **Modelling** events. **Conditioning** was found to be the least experienced pathway, with only 51.8% of males and 48.4% of females endorsing **Conditioning** events (see Table 20, top).

4.5.2. Gender differences with regard to the role of the three pathways in *intensifying* middle-childhood fears

Significantly more females than males reported that the pathways of **Conditioning** ($\chi 2$ (1) = 21.000, p < .01), **Modelling** ($\chi 2$ (1) = 6.668, p < .05) and **Information** ($\chi 2$ (1) = 27.856, p < .01) had played a role in *intensifying* their fear. More specifically, 41.6% of females reported that **Conditioning** experiences had *intensified* their fear as opposed to only 32,7% of males, while 48.2% of females reported that **Modelling** experiences had *intensified* their fear, as opposed to 38.3% of males, and lastly 63.8 percent of females reported that **Information** experiences had *intensified* their fear as opposed to only 44.3% of male participants. Both gender groups reported **Information** experiences as having played the largest role in increasing the level of their fear, and least reported **Conditioning** experiences to have increased their fear levels (see Table 20, middle).

4.5.3. Gender differences with regard to the role of the three pathways in the *onset* of middle-childhood fears

No significant gender differences were found regarding the role of the three pathways in the *onset* of the participants' fears. However, both groups reported the **Information** pathway to have played the largest role in the *onset* of their fear, with 29.1% of male and

30.6% of female participants endorsing it, while **Modelling** was found to play the smallest role in the *onset* of both groups' fears, with only 19.1% of males and 19.2% of females endorsing it (see Table 20, bottom).

4.6. Socio-economic Status'

Table 21

Origins of Middle-childhood Fears Across the Independent Variable Socio-economic Status (SES)

	Low n (%)	Middle n (%)	High n (%)	χ^2	df	p
Experiences						
Conditioning experiences	91 (59.1%)	116 (67.4%)	119 (36.7%)	48.843	2	.000**
Modelling experiences	131 (82.9%)	138 (78.4%)	228 (70.2%)	10.492	2	.005**
Information experiences	121 (77.1%)	119 (69.6%)	205 (65.1%)	7.085	2	.029*
Experiences intensifying fear						
Did conditioning cause more fear?	69 (43.9%)	91 (52.6%)	85 (26.2%)	51.003	4	.000**
Did modelling cause more fear?	92 (59.0%)	100 (59.5%)	88 (27.8%)	67.730	4	.000**
Did information cause more fear?	93 (61.2%)	95 (56.2%)	162 (50.8%)	11.498	4	.022*
Onset of fear						
Conditioning	45 (29.0%)	22 (12.5%)	68 (20.9%)	13.829	2	.001**
Modelling	45 (29.0%)	55 (31.3%)	25 (7.7%)	54.179	2	.000**
Information	32 (20.6%)	40 (22.7%)	124 (38.2%)	21.226	2	.000**

* $p < ,05$ level
** $p < ,01$ level

4.6.1. Socio-economic differences with regard to the role of the three pathways in the *experience* of middle-childhood fears

Significant differences were found between the three socio-economic groups with regard to the experience of **Conditioning** ($\chi 2$ (1) = 48.843, p < .01), **Modelling** ($\chi 2$ (1) = 10.492, p < .01) as well as **Information** ($\chi 2$ (1) = 7.085, p < .05) events (see Table 15, top). Post hoc analysis revealed that the differences in **Conditioning** events *experienced* in connection to participants' fear lay between the Middle and High SES groups ($\chi 2$ (2) = 42.511, p<.01) and between the Low and High SES groups ($\chi 2$ (2) = 21.192, p<.01), and that the differences in **Modelling** *experiences* lay also between the Middle and High SES groups ($\chi 2$ (2) = 3.953, p<.05) and between Low and High SES groups ($\chi 2$ (2) = 9.068, p<.01). Differences in **Information** *experiences* lay between Low and High SES groups ($\chi 2$ (2) = 7.051, p < .01). All three groups endorsed **Modelling** *experiences* more so than the other two pathways (see Table 21, top).

4.6.2. Socio-economic differences with regard to the role of the three pathways in *intensifying* middle-childhood fears

Significant differences were found between the three socio-economic groups with regard to whether **Conditioning** events ($\chi 2$ (2) = 51.003, p<.01), **Modelling** events ($\chi 2$ (2) = 67.730, p<.01) as well as **Information** events ($\chi 2$ (2) = 11.498, p<.05) *intensified* participants' fears (see Table 21, middle). Post hoc analysis revealed that the differences concerning the question whether **Conditioning** experiences *intensified* participants' fears lay between the Middle and High SES groups ($\chi 2$ (2) = 44.569, p<.01) and between the Low and High SES groups ($\chi 2$ (2) = 21.959, p<.01). The differences concerning the question whether **Modelling** experiences *intensified* participants' fears, lay between the Middle and High SES groups ($\chi 2$ (2) = 49.493, p < .01), and the Low and High SES groups ($\chi 2$ (2) = 43.218, p < .01). Lastly, the differences concerning the question whether **Information** experiences *intensified* participants' fears lay between the Low and High SES groups ($\chi 2$ (2) = 10.601, p<.01). The Low and High SES groups both endorsed the **Information** pathway as playing the largest role in *intensifying* their fears more so than

the other two pathways, while the Middle SES group endorsed the **Modelling** pathway as playing the largest role in *intensifying* their fears (see Table 21, middle).

4.6.3. Socio-economic differences with regard to the role of the three pathways in the *onset* of middle-childhood fears

Significant differences were found between the three socio-economic groups with regard to whether the pathways of **Conditioning** ($\chi 2$ (2) = 13.829, p<.01), **Modelling** ($\chi 2$ (2) = 54.179, p<.01) as well as **Negative information** ($\chi 2$ (2) = 21.226, p < .01) marked the *onset* of the participants' fears (see Table 21, bottom). Post hoc analysis revealed that the differences in **Conditioning** experiences marking the *onset* of fear lay between the Low and Middle SES groups ($\chi 2$ (1) = 13.953, p<.01) and between the Middle and High SES groups ($\chi 2$ (1) = 5.497, p<.05). Differences in **Modelling** experiences marking the *onset* of fear lay between the Low and High SES groups ($\chi 2$ (1) = 38.367, p < .01) and between the Middle and High SES groups ($\chi 2$ (1) = 47.220, p< .01). Lastly, differences in **Information** experiences marking the *onset* of fear lay between the Low and High SES groups ($\chi 2$ (1) = 14.665, p < .01) and the Middle and High SES groups ($\chi 2$ (1) = 12.340, p<.01). Interestingly, the results showed that the Low SES group endorsed the **Conditioning** pathway more frequently as marking the *onset* of their fear than the other two SES groups, while the Middle SES group more likely endorsed the **Modelling** pathway, while the High SES group were least likely to endorse it, and the High SES group endorsed **Information** pathway more frequently (see Table 21, bottom).

4.7. Culture

Table 22

Origins of Middle-childhood Fears Across the Independent Variable Culture

	Black n (%)	White n (%)	Coloured n (%)	X 2	df	p
Experiences						
Conditioning experiences	102 (57.3%)	100 (37.3%)	121 (60.8%)	30.341	2	.000**
Modelling experiences	149 (81.9%)	187 (69.5%)	156 (76.8%)	9.301	2	.010*
Information experiences	139 (77.2%)	171 (65.3%)	130 (66.3%)	8.045	2	.018*
Experiences intensifying fear						
Did conditioning cause more fear?	76 (42.0%)	72 (26.8%)	96 (48.2%)	32.270	2	.000**
Did modelling cause more fear?	104 (58.1%)	73 (28%)	101 (51.5%)	46.972	2	.000**
Did information cause more fear?	106 (60.9%)	137 (51.9%)	103 (52.3%)	11.468	2	.022*
Onset of fear						
Conditioning	48 (26.8%)	56 (20.8%)	29 (14.3%)	9.229	2	.010*
Modelling	51 (28.5%)	16 (5.9%)	57 (28.1%)	51.028	2	.000**
Information	39 (21.8%)	101 (37.5%)	53 (26.1%)	14.568	2	.001**

* p< ,05
** p< ,01

4.7.1. Cultural differences with regard to the role of the three pathways in the *experience* of middle-childhood fears

Significant differences were found between the three cultural groups with regard to the *experience* of **Conditioning** ($\chi 2$ (2) = 30.341, p<.01), **Modelling** ($\chi 2$ (2) = 9.301, p<.05) as well as **Information** events ($\chi 2$ (2) = 8.045, p<.05) (see table 22, top). Post hoc analysis revealed that the differences in **Conditioning** events *experienced* in connection to participants' fear lay between the White and Coloured participants ($\chi 2$ (1) = 25.279, p

< .01) with Coloured participants experiencing significantly more **Conditioning** events than White participants; and the White and Black participants ($\chi 2$ (1) = 17.249, p < .01), with Black participants experiencing significantly more **Conditioning** events than White participants and that the differences in **Modelling** *experiences* lay between the White and Black participants ($\chi 2$ (1) = 8.718, p < .01), with Black participants experiencing significantly more **Modelling** events than White participants; and lastly, differences in **Information** *experiences* lay between Black and Coloured participants ($\chi 2$ (1) = 5.471, p < .05), with Black participants experiencing significantly more Information events than Coloured participants and between Black and White participants ($\chi 2$ (1) = 7.281, p < .01), with Black participants again experiencing significantly more Information events than White participants. All three groups endorsed **Modelling** experiences more so than the other two pathways (see Table 22, top).

4.7.2. Cultural differences with regard to the role of the three pathways in *intensifying* middle-childhood fears

Significant differences were found between the three cultural groups with regard to whether **Conditioning** events ($\chi 2$ (2) = 32.270, p<.01), **Modelling** events ($\chi 2$ (2) = 46.972, p<.01) as well as **Information** events ($\chi 2$ (2) = 11.468, p<.05) *intensified* participants' fears (see Table 22, middle). Post hoc analysis revealed that the difference regarding the question whether **Conditioning** experiences *intensified* participants' fears lay between the White and Coloured participants ($\chi 2$ (1) = 26.781, p<.01), with significantly more Coloured participants reporting that **Conditioning** experiences intensified their fear; and between the White and Black participants ($\chi 2$ (1) = 17.381, p<.01), with significantly more Black participants reporting that **Conditioning** events intensified their fear. The differences in whether **Modelling** experiences *intensified* participants' fears lay between the White and Coloured participants ($\chi 2$ (1) = 27.012, p<.01), with significantly more Coloured participants reporting that Modelling experiences intensified their fear and between the White and Black participants ($\chi 2$ (1) = 40.092, p<.01), with significantly more Black participants reporting that **Modelling** experiences intensified their fear. Lastly, the difference regarding the question whether **Information** experiences *intensified* participants' fears lay between the Black and

Coloured participants ($\chi 2$ (1) = 8.382, p<.05), with significantly more Black participants reporting that **Information** experiences intensified their fear, and between the Black and White participants ($\chi 2$ (1) = 9.927, p < .01), with again significantly more Black participants reporting that **Information** experiences intensified their fear. All three cultural groups endorsed the **Information** pathway as playing the largest role in *intensifying* their fears more so than the other two pathways (see Table 22, middle).

4.7.3. Cultural differences with regard to the role of the three pathways in the *onset* of middle-childhood fears

Significant differences were found between the three cultural groups with regard to whether the pathways of **Conditioning** ($\chi 2$ (2) = 9.229, p<.05), **Modelling** ($\chi 2$ (2) = 51.028, p<.01) as well as **Negative information** ($\chi 2$ (2) = 14.568, p<.05) marked the *onset* of the participants' fears (see Table 22, bottom). Post hoc analysis revealed that the differences in **Conditioning** experiences marking the *onset* of fear lay between the Black and Coloured participants ($\chi 2$ (1) = 9.279, p < .01), with significantly more Black participants reporting that **Conditioning** events marked the actual onset of their fear. Differences in **Modelling** experiences marking the *onset* of fear lay between the Black and White participants ($\chi 2$ (1) = 42.947, p<.01), with significantly more Black participants reporting that Modelling events marked the actual onset of their fear, and between the White and Coloured participants ($\chi 2$ (1) = 43.340, p<.01), with significantly more Coloured participants reporting that **Modelling** experiences marked the actual onset of their fear. Lastly, differences in **Information** experiences marking the *onset* of fear lay between the Black and White participants ($\chi 2$ (1) = 12.424, p<.01), with significantly more White participants reporting that **Information** experiences marked the actual onset of their fear, and between the Coloured and White participants ($\chi 2$ (1) = 6.886, p<.01), with again significantly more White participants reporting that **Information** experiences marked the actual onset of their fear. The results thus showed that the Black and Coloured participants endorsed the **Modelling** pathway more frequently as marking the *onset* of their fear than the other two pathways, while the White participants endorsed the **Information** pathway more frequently (see Table 22, bottom).

4.8. The relationship between the severity of fear and Rachman's three pathways

Chi square analysis was used to assess the nature of the relationship between the severity of the participants' fears and the pathway(s) that they endorsed and ultimately to test Rachman's (1977) hypothesis that intense or severe fears are likely to originate through **Conditioning** processes while less intense, everyday fears are likely to originate through the remaining two pathways, namely **Modelling** and **Information**.

Table 23

The Relationship Between the Severity of Fears and the Three Pathways of Fear Acquisition

	Mild n (%)	Severe n (%)	$\chi 2$	df	p
Experiences					
Conditioning experiences	71 (36.0%)	249 (56.2%)	22.184	1	.000**
Modelling experiences	140 (70%)	348 (77.5%)	4.179	1	.041*
Information experiences	106 (55.2%)	330 (74.8%)	24.025	1	.000**
Onset of fear					
Conditioning	31 (15.5%)	100 (22.4%)	4.092	1	.042*
Modelling	37 (18.5%)	87 (19.5%)	.090	1	.764
Information	57 (28.5%)	136 (30.5%)	.262	1	.609

***** $p < ,05$
** $p < ,01$

4.8.1 The relationship between the severity of fear and the pathway of conditioning

Among the participants reporting **Conditioning** *experiences* in relation to their most severe fear, a significant difference was found between those experiencing mild fear levels and those experiencing high fear levels ($\chi 2$ (1) = 22,184, $p < .01$), with 56.2% of subjects reporting high fear levels as compared to only 36% who reported a mild level of fear.

In addition, among participants who reported that **Conditioning** experiences marked the actual *onset* of their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels ($\chi 2$ (1) = 4.092, p<.05), with 22.4% of subjects reporting high fear levels as compared to only 15.5% who reported mild levels of fear (see Table 23).

4.8.2. The relationship between the severity of fear and the pathway of vicarious learning (modelling)

Among the participants who reported **Modelling** *experiences* in relation to their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels ($\chi 2$ (1) = 4.179, p<.05), with 77.5% of subjects reporting a high level of fear and 70% of subjects reporting a mild level of fear.

However, no significant difference was found between the severities of fears experienced among participants who reported that a **Modelling** event marked the *onset* of their fear, with 19.5% of subjects who reported that a **Modelling** experience marked the *onset* of their fear experiencing a high level of fear, and 18.5% experiencing a mild level of fear (see Table 23).

4.8.3. The relationship between the severity of fear and the pathway of negative instruction/information

Among the participants who reported **Information** *experiences* in relation to their most severe fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels ($\chi 2$ (1) = 24.025, p < .01) with 74.8% of subjects reporting a high level of fear and 55.2% of subjects reporting a mild level of fear.

However, no significant difference was found between the severities of fears experienced among participants who reported that **Information** experiences marked the *onset* of their fear, with 30.5% of subjects who reported that an **Information** experience marked the

onset of their fear experiencing a high level of fear, and 28.5% experiencing a mild level of fear (see Table 23).

CHAPTER 5

DISCUSSION

5.1 Fear Content of Middle-childhood South African Children

The rank order of the top ten fears of the present sample of middle-childhood South African children was found to be (1) Death, (2) Snakes, (3) Crime, (4) Crocodiles, (5) Predators, (6) Spiders, (7) Gangs, (8) Weapons, (9) Dogs and (10) Rape (see Table 4). This was similar to the fears most frequently experienced in the sample of middle-childhood children from the same geographical area in Burkhardt's (2002) study, with the exception of a fear of Transport which was replaced by a fear of Rape in the present study. The rank order in the present study differed to that found in Burkhardt's (2002) study, where the most common fear was found to be of Snakes as opposed to a fear of Death. These findings support Wenar's (1994) description of middle-childhood fears, in that the trend towards realistic fears continues, while irrational fears, such as that of Snakes, are still present. They are also in line with other normative fear investigations that have found fears related to death and danger to be most frequently reported during childhood and adolescence (Gullone & King, 1993; King et al., 1989; Ollendick, 1983).

5.1.1. Age

As the age range of the sample was relatively small, the researcher was advised to compare the content, severity, and origin of fears of **Grade 5** (with a mean age of 11.09) participants to those of the **Grade 7** (with a mean age of 12.79) participants (P. Muris, personal communication, October 1, 2004). Previous research has found these two age groups to experience different levels (Ollendick & King, 1991) and content (Miller, 1983) of fears. The present study found that generally, **Grade 5s** displayed more fears of **Death, Snakes, Crocodiles, Predators, Weapons and Dogs**, while **Grade 7s** displayed more fears of **Crime, Spiders, Gangs and Rape** (see Table 6). However, the only significant differences were found for a fear of **Snakes**, which was reported by 22.8% of **Grade 5s**, and only 16.4% of **Grade 7s**; a fear of **Crime**, which was reported by 13.7%

of **Grade 7s** and only 8.2 % of **Grade 5s**; and a fear of **Rape**, which was reported by 2.5% of **Grade 7s** and only 0.3% of **Grade 5s**. Therefore, **Grade 5s** reported significantly more fear of **Snakes**, while **Grade 7s** reported significantly more fear of **Crime** and **Rape**.

This change in the content of fear experienced among participants attending Grade 5 and those attending Grade 7 can be explained by the changes in children's perception of reality as explained by Piaget (1972) whereby fears tend to become more realistic, for example, in this case Grade 7 participants' fears of more realistic dangers such as Crime, Gangs and Rape, dominate the more unrealistic fears of, for instance, Snakes, as children become increasingly able to recognise and understand the potential harm or danger inherent in certain events or places (Dong et al., 1994). Thus, the slight differences in the frequency of the specific fears expressed at the different grade levels is likely to reflect the developmental stages in children's perception of reality (Bauer, 1976). These results support findings that the most common childhood fears are related to physical injury and death, with animal fears generally declining with age, while fear of death and danger remain relatively common throughout development (Gullone, 2000; King et al., 1988). In addition, these two types of fears, if still persistent in adulthood are usually found to have persisted since childhood (Marks, 1987).

5.1.2. Gender

Girls tended to reported more fears for phenomena such as **Death**, **Crime** and **Rape**, while **Boys** reported more fear for phenomena such as **Crocodiles**, **Predators**, **Spiders** and **Gangs**. Fears of **Snakes**, **Dogs** and **Weapons** were more or less equally expressed by both gender groups. However, the significant differences in fear content between the two gender groups were found for a fear of **Death**, which was reported by 29.6% of **female** participants', and only 18% of **male** participants'; a fear of **Crime**, which was reported by 13.9% of **female** participants' and only 8.0% of **male** participants'; and a fear of **Crocodiles**, which was reported by 14.8% of **male** participants' and only 7.2% of **female** participants' (see Table 7). Therefore, **girls** reported significantly more fear of **Death** and **Crime**, while **boys** reported significantly more fear of **Crocodiles**.

These findings contrast with those of Bouldin and Pratt (1998) who found females to experience more animal fears than males, although this particular study was conducted on a younger sample of children aged between 3 and 8 years of age. Generally, research on gender differences regarding the content of middle-childhood fears is limited, besides findings by Gullone and King (1993), King et al. (1989), and Ollendick, King, and Frary (1989) who found girls to score higher on all five scales of the FSSC-R. It is, of course, possible that such findings are a result of sex-role expectations, whereby fearful responses to certain stimuli or situations are more acceptable for girls than for boys (Gullone & King, 1993).

5.1.3. Socio-economic Status

The content of middle-childhood fears was compared across **Low**, **Middle**, and **High** socio-economic areas as determined by a study carried out by the Department of Sociology of Stellenbosch University (1995). Results seen in Table 8 show that the most significant differences were for fears of Death, Snakes, Crime, Crocodiles, Gangs and Weapons. However, significant differences were also found for a fear of Predators, Dogs and Rape.

Post hoc analysis revealed that the main differences for a fear of **Death** lay most significantly between the **Low** and **High** socio-economic groups, but also between the **Low** and **Middle** socio-economic groups, with the **Low** socio-economic group experiencing significantly less fear of **Death**. The main differences for a fear of **Snakes** lay between the **Low** and **High** socio-economic groups and the **Middle** and **High** socio-economic groups, with the **High** socio-economic group experiencing significantly less fear of **Snakes** than the other two groups. The main differences for a fear of **Crime** lay between the **Low** and **High** socio-economic groups and the **Low** and **Middle** socio-economic groups, with the **Low** socio-economic group experiencing significantly less fear of **Crime** than the other two groups. The main differences for a fear of **Crocodiles** lay between all three socio-economic groups, but most significantly between the **Low** and **High** socio-economic groups, with the **High** socio-economic group experiencing

significantly less fear than the other two groups, the **Low** socio-economic group experiencing significantly more fear for **Crocodiles** than the other two groups and the **Middle** socio-economic groups lying in between the other two groups. The main differences for a fear of **Predators** was found to lie between the **Low** and **High** socio-economic groups as well as the **Low** and **Middle** socio-economic groups, with the **Low** socio-economic group experiencing significantly more fear than the other two groups. The main differences for a fear of **Gangs** was found to lie between the **Low** and **High** socio-economic group as well as between the **Middle** and **High** socio-economic groups, with the **High** socio-economic group experiencing significantly more fear of **Gangs** than the other two groups. The main differences for a fear of **Weapons** lay between the **Low** and **Middle** socio-economic groups and the **Middle** and **High** socio-economic groups, with the **Middle** socio-economic group experiencing significantly more fear of **Weapons** than the other two groups. The main differences for a fear of **Dogs** lay between the **Low** and **High** socio-economic groups and between the **Middle** and High socio-economic groups, with the **High** socio-economic group experiencing significantly less fear for **Dogs** than the other two groups. And, lastly, the main differences for a fear of **Rape** lay between the **Middle** and **High** socio-economic groups, with the **High** socio-economic group experiencing significantly more fear of **Rape** than the other two groups.

Thus, to summarise, the **Low** socio-economic group experienced significantly less fear for **Death** and **Crime**, and significantly more fear of **Crocodiles** and **Predators**, the **High** socio-economic group experienced significantly less fear of **Snakes**, **Crocodiles**, and **Dogs**, and significantly more fear of **Gangs** and **Rape**, while the **Middle** socio-economic group experienced significantly more fear of **Weapons**.

These findings confirm those of Jersild, Markey and Jersild (cited in Angelino et al., 1956) who conducted a study on 400 pupils aged between 5 and 12 years of age and found poorer children reported more animal fears, amongst others, and well-to-do children reported more fears related to bodily injury and physical danger. The present findings, however, dispute the comments of Graziano et al. (1979) that children from lower socio-economic groups perceive their environment as being more hostile and thus their fears are immediate and reality based, whereas the present study found the top fears

of children from low socio-economic groups to include the likes of Snakes, Crocodiles and Predators, which are rarely encountered and pose no immediate threats. It is more likely that these findings are better accounted for by differences in education and understanding (King et al., 1988). Sidana (1975) found no differences in fear content between upper, middle, and lower SES groups in a study conducted on 300 Indian children aged 6 to 10 years of age. It may be speculated that due to the more extreme and impoverished living conditions of youth in South Africa coming from a low socio-economic background where phenomena such as crime and gangs are encountered on a daily basis, these children are perhaps more resilient to such stimuli than children from a higher socio-economic and even middle socio-economic background.

5.1.4. Culture

The results of the present study showed that the most significant differences amongst the three cultural groups were for a fear of Snakes, Crime, Crocodiles, Gangs and Rape. Significant differences were also found though for fears of Death, Predators and Weapons.

Post hoc analysis revealed that the main differences for a fear of **Death** lay between **Black** and **White** participants and between **Black** and **Coloured** participants, with **Black** participants experiencing significantly less fear than the other two cultural groups. The main differences for a fear of **Snakes** lay between **White** and **Coloured** participants and between **Black** and **White** participants, with **White** participants experiencing significantly less fear than the other two cultural groups. The main differences for a fear of **Crime** lay between all three cultural groups, with **Black** participants experiencing the least fear, and **White** participants experiencing the most fear. The main differences for a fear of **Crocodiles** also lay between all three cultural groups, with **White** participants experiencing the least fear, and **Black** participants experiencing the most fear. The main differences for a fear of **Predators** lay most significantly between **Black** and **White** participants, but also between **Black** and **Coloured** participants, with **Black** participants experiencing significantly more fear than the other two cultural groups. The most significant differences for a fear of **Gangs** lay between **Black** and **White** participants, but

also between **Coloured** and **White** participants, with **White** participants being significantly more fearful than the other two cultural groups. The main differences for a fear of **Weapons** lay between **White** and **Coloured** participants and between **Black** and **Coloured** participants, with **Coloured** participants experiencing significantly more fear than the other two cultural groups. And, finally, the main differences for a fear of **Rape** lay between **Black** and **White** participants and between **Coloured** and **White** participants, with **White** participants experiencing significantly more fear than the other two cultural groups.

Thus, to summarise, **Black** participants were found to experience significantly more fear for phenomena such as **Crocodiles** and **Predators**, and significantly less fear for phenomena such as **Death** and **Crime**. **White** participants were found to experience significantly more fear for phenomena such as **Death**, **Crime**, **Gangs** and **Rape**, and significantly less fear for **Snakes** and **Crocodiles**, while **Coloured** participants were found to experience significantly more fears for phenomena such as Death and **Weapons**, and significantly less fear for **Predators** and **Rape**. Otherwise **Coloured** participants lay somewhere between **Black** and **White** participants with regard to fear of **Snakes**, **Crime**, **Crocodiles** and **Gangs**.

These findings confirm those of Burkhardt's (2002) study, in which the FOM was administered to a similar sample of middle-childhood children from the same geographical area. Burkhardt (2002) also found Black participants to experience more fears of Crocodiles and Predators, and less fears of Death and Crime than the other two cultural groups; White participants to experience more fear of Crime and less fear of Crocodiles, and Coloured participants to experience more fear of Weapons and Death. However, Burkhardt's (2002) study also found that Black participants had more fears of Gangs than was found in the present study; White participants to experience less fear of Death and Gangs, and more fear of Snakes than found in the present study, and Coloured participants to experience more fear of Predators than found in the present study. Statistical analysis revealed that there were distinct differences between the three cultural groups with regard to socio-economic status, with the majority of Black participants' falling within the Low socio-economic group, the majority of Coloured participants

falling with in the Middle socio-economic group, and the majority of the White participants' falling within the High socio-economic group. Therefore, the same explanation given for the fear-content differences found between the socio-economic groups could apply for the differences found between the cultural groups.

5.2. The severity of middle-childhood South African children's fears

Participants were asked to indicate whether they experienced a high or mild level of fear towards their most feared stimuli or situation. Approximately two thirds of the sample indicated that they were highly fearful of their most feared stimuli or situation, confirming that common childhood fears are indeed distressing.

5.2.1. Age

The majority of Grade 5s and Grade 7s reported a high level of fearfulness (69.4% and 69.1% respectively) (see Table 10). The difference was however not significant. Thus, fear levels, at least for the present sample, did not undergo any significant change from Grade 5 (with a mean age of 11.09) to Grade 7 (with a mean age of 12.79). This contradicts the findings of Ollendick's (1991) study that children aged between 9 and 11 years reported a higher level of fear than those aged between 12 and 14 years of age.

5.2.2. Gender

According to the results in Table 11, a significant difference was found between the gender groups with regard to fear severity, with the majority of females (83.0%) reporting a high level of fear and approximately half of the male participants reporting a mild level of fear (46.6%) and half of them reporting a high level of fear (53.4%).

The same trend was found for middle-childhood children from the same geographical area using the FSSC-R (Burkhardt, 2002), as well as for American (Ollendick, 1991; Ollendick et al., 1996), Australian (Bouldin & Pratt, 1998; Gullone & King, 1993; King & Gullone, 1992; Ollendick, 1996; Ollendick & King, 1994), Dutch (Muris,

Merckelbach, Meesters et al., 1997), British (Ollendick et al., 1991), Chinese (Dong et al., 1994; Ollendick et al., 1996), and Israeli (Elbedour et al., 1997) children. The only exception seems to be among Nigerians and Kenyan children, where in one study no sex differences in level of fear were found (Ingman et al., 1999) and in another study where Nigerian boys reported a higher level of fear than Nigerian girls (Ollendick, 1996). The above findings are likely a product of sex-role expectations and gender stereotypes (Gullone & King, 1993), whereby girls are socialised to be more fearful than boys, with the reporting of such behaviour in girls even being reinforced (King et al., 1989; Ollendick et al., 1991).

5.2.3. Socio-economic status

Significant differences were found between the socio-economic groups with regard to fear severity, with the majority of Low, Middle, and High socio-economic groups (83.2%, 72.7%, & 60.7% respectively) (see Table 12) reporting high levels of fear. The Low socio-economic groups reported a higher level of fear than the High socio-economic group, with the Middle socio-economic group lying somewhere in between. A similar trend was found in Burkhardt's (2002) study as well as in Sidana's (1975) study on Indian children aged 6 to 10 years of age.

5.2.4. Culture

Significant differences were found between the three cultural groups with regard to fear severity, with the majority of Black, White and Coloured participants reporting high levels of fear (82.6%, 60.4%, & 69.7% respectively) (see Table 13). Black participants reported the highest level of fear, while White participants reported the lowest levels of fear, with Coloured participants lying somewhere in between. The same trend was found between the same cultural groups residing in the same geographical area in Burkhardt's (2002) study as determined by the FSSC-R. The present findings are also consistent with anxiety scores determined across the same cultural groups, where Black participants were found to report higher anxiety levels than Coloured, and especially, White participants (Muris, Schmidt et al., 2002)

5.3. The role of the three pathways with regard to the experience of middle childhood fears

5.3.1 Findings for all participants

According to the results in Table 14, the largest proportion of participants reported **Modelling** experiences (75.3%) in connection to their greatest fear, followed by **Information** experiences (67.4%) and, lastly, **Conditioning** experiences (49.4%). As participants could select more than one pathway, combinations of the three pathways were also analysed, of which a combination of all three pathways (28%) was the most frequently endorsed, followed by a combination of **Modelling** and **Information** experiences (25.3%).

These findings contradict those found by Muris, Merckelbach & Collaris (1997), in whose study 87.8% of Dutch participants aged between 9 and 13 years of age reported Information experiences in connection to their most feared stimulus or situation, while only 61% endorsed Conditioning experiences and even less endorsed Modelling experiences (49.6%). They also contradict the findings of Ollendick and King (1991), in whose study 89% of the 1 092 American and Australian participants aged between 9 and 14 years of age reported Information experiences. A later study by Muris, Merckelbach, Gadet et al. (2000) also found the majority of their Dutch participants (55.2%) to endorse Information experiences in relation to their top intense fear, while only 33.1% endorsed Conditioning experiences and, once again, even fewer endorsed Modelling experiences (25.5%). Clearly then, the country of origin and, one would assume, its inherent cultural systems and beliefs, play a role regarding the pathway children experience most frequently in relation to their most feared stimuli or situation.

A few studies, however, do provide some support for the present findings. Milgrom et al. (1995) found Conditioning and Parental Modelling factors to be significant predictors of childhood dental fear levels among children aged between 5 and 11 years of age. Muris et al. (1996) found a strong significant relationship between the fearfulness of 40 children

aged between 9 and 12 and their mothers, with Modelling being an important mediator in the relationship.

The present findings provide strong support for Bandura's social learning theory whereby the child imitates fearful or phobic behaviour of significant others, often only at a later stage (King et al., 1988). As this is the most frequently reported pathway experienced by South African children in connection to their most intense fears, it would be a necessary focus of intervention programmes aimed at preventing severe, disabling fears among the country's youth.

The most common mode of onset for each individual fear was determined (see Tables 15 and 16). **Modelling** was found to be the most frequently reported pathway experienced in connection to fears of **Death**, **Snakes**, **Spiders**, **Gangs**, **Weapons** and **Dogs**. **Negative Information** was found to be the most frequently reported pathway experienced in connection to fears of **Crime**, **Crocodiles**, **Predators** and **Rape**. **Conditioning** was the least frequently reported pathway experienced among all participants in connection to their most feared stimulus or situation.

Muris, Merckelbach, & Collaris (1997) found Information experiences to be the dominant pathway associated with animal fears, fears of death and danger, and a fear of spiders, which they examined specifically among Dutch participants. On the other hand, the origins of these fears in the present South African were more or less equally distributed between the pathways of Modelling and Information, while a fear of spiders was most frequently associated with Modelling experiences as opposed to Information experiences. It is possible then that the above findings suggest that phobias may be pathway specific (Ollendick et al., 1997) and that the relationship is likely to be context specific seeing that, within a South African context, Modelling experiences exert a stronger influence on children than elsewhere in the world.

5.3.2. Age differences

As the age groups of the present sample were relatively small, the researcher was advised to instead compare the origin of fears between the two grades assessed, namely **Grade 5** children and **Grade 7** children, with mean ages of approximately 11 and 13 years of age respectively. The two groups did not differ significantly in their *experiences* of the three pathways of fear acquisition, although both groups reported more **Modelling** experiences than the other two pathways. **Conditioning** experiences were the least frequently reported pathway for both groups. A trend was present for **Grade 7s** to report slightly more **Conditioning**, **Modelling** as well as **Information** experiences than the **Grade 5s**.

On the other hand, Ollendick et al. (1991) found significant age differences for Vicarious experiences (Modelling), where preadolescents (aged between 9 and 11 years) reported more Modelling experiences than adolescents (aged between 12 and 14 years) and a slight trend was found for preadolescents to endorse the Information pathway more frequently than adolescents. Whereas Muris, Merckelbach, Gadet et al. (2000) found the children in their sample, aged between 4 and 12, to be relatively stable in describing the origins of their fears in terms of the three pathways.

Findings available on the origins of fears across age groups are thus contradictory and warrant further research.

5.3.3. Gender differences

Both gender groups reported *experiencing* **Modelling** events more frequently in relation to their most intense fear. **Conditioning** was found to be the least experienced pathway across both gender groups. Significant gender differences were only found for **Information** experiences, with significantly more **females** endorsing that specific pathway than **males**. No significant gender differences were found for **Conditioning** and **Modelling** experiences.

These results differ from those of Ollendick et al. (1991) who also found a trend for females to report more Information and instructional sources of fear but found significant differences for the pathways of Conditioning, where males reported significantly more Conditioning experiences than females, and Modelling, where again males reported significantly more Modelling experiences than females. The present study also found a slight trend for males to report Conditioning experiences more frequently than females, however females were found to report more Modelling experiences than males.

Thus, in summary, the present study, as well as the study of Ollendick et al. (1991) found **males** to endorse **Conditioning** *experiences* more often than **females**, while **females**, more often than **males**, endorsed **Information** *experiences* in relation to their most intense fear. The role of gender in the *experience* of **Modelling** experiences among children is contradictory and warrants further research.

5.3.4. Differences amongst socio-economic groups.

All three socio-economic groups endorsed **Modelling** *experiences* more than the other two pathways. When considering each pathway separately, **Conditioning** *experiences* were most frequently endorsed by the **Middle** socio-economic group and notably less by the **High** socio-economic group, **Modelling** *experiences* were found to be most frequently endorsed by the **Low** socio-economic group, and **Information** *experiences* were also found to be most frequently endorsed by the **Low** socio-economic group.

The **High** socio-economic group was found to report significantly fewer **Conditioning** and **Modelling** *experiences* than both the **Low** and **Middle** socio-economic groups and significantly fewer **Information** *experiences* than the **Low** socio-economic group.

Thus, most notably, the **High** socio-economic group reported far fewer **Conditioning** *experiences* than the other two socio-economic groups.

5.3.5. Differences amongst cultural groups

All three cultural groups endorsed **Modelling** *experiences* more than the other two pathways. Considering each pathway separately, **Conditioning** *experiences* were most frequently endorsed by **Coloured** participants, and **Modelling** and **Information** *experiences* were both most frequently endorsed by **Black** participants. **White** participants were found to report **Conditioning** *experiences* significantly less than both **Coloured** and **Black** participants, **White** participants were found to report significantly fewer **Modelling** *experiences* than **Black** participants, and finally, **Black** participants were found to report significantly more **Information** *experiences* than both **White** and **Coloured** participants.

Thus, most notably, **Black** participants endorsed all the pathways more frequently than the other two cultural groups and **White** participants experienced far fewer **Conditioning** *experiences* than the other two cultural groups.

5.4. The role of the three pathways with regard to intensifying middle-childhood fears

5.4.1. Findings for all participants

Participants were asked to indicate whether **Conditioning**, **Modelling** and **Information** experiences caused them to be more fearful of their most feared stimuli or situation (and thus played a role in maintaining their fear). For the present sample (see Table 14), **Information** experiences (53.0%) were found to play the most prominent role in *intensifying* and thus maintaining participants' fears, 42.4% of participants indicated that **Modelling** experiences caused them to be more fearful and **Conditioning** experiences (37.1%) were found to play the least prominent role.

These results differ from those found by Muris, Merckelbach & Collaris (1997) in which the majority (45.8%) of Dutch participants aged between 9 and 13 years reported that Conditioning experiences made them more fearful, while 35.1% reported Information

experiences and only 3.8% reported that Modelling experiences intensified their fear. A series of studies conducted by Field et al. (2001; 2003), Field and Lawson (2003), and Muris et al. (2003) highlighted the significant role that fear information plays in the acquisition and maintenance of fearful behaviour. In the first of these studies, Field et al. (2001) conducted an experiment on 40 British children aged between 7 and 9 years who were presented with verbal and video information in the form of a story about a novel stimulus (two monster dolls). In this case verbal information significantly changed the children's fear beliefs about the novel stimuli with negative information especially substantially increasing fear beliefs. The same study found this negative information to be most effective when coming from an adult. In the second study conducted by Field et al. (2003), the effects of fear information on the development of social fears was investigated among 135 British children aged between 10 and 13 years. They found that fear information changed social beliefs, but it was dependent on both the type of social activity in question as well as who provided the information. More specifically, information concerning public speaking affected fear beliefs when given by a peer. Field (cited in Field et al., 2003; Field & Lawson 2003) provided British children aged between 10 and 12 years negative, positive, and no information about Australian marsupials, namely the quoll, quokka and cuscus. Negative information was found to significantly increase these children's fears towards these stimuli. Using a similar design Field and Lawson (2003) tested behavioural avoidance as well as fear beliefs among 59 British children aged between 6 and 9 years. They found that negative information increased fear beliefs and behavioural avoidance towards the animals and that positive information decreased fear beliefs and behavioural avoidance towards the animals.

Muris et al. (2003) exposed 285 Dutch children aged between 4 and 12 years to either negative or positive information about an unknown dog-like animal named 'the beast'. They assessed children's fears at three points in time, namely, before, directly after and one week after experimental manipulation, and found that negative information increased fear levels and positive information decreased fear levels directly after and one week after the experimental manipulation and generalised to other dogs and predators. Thus, past research has shown that negative ideas about certain stimuli and situations can increase children's fears, while positive information can reduce or diminish such fears. The

present study's results confirm the findings on negative information and the findings on positive information would certainly warrant exploration within a South African context for preventive and intervention purposes.

The modes of onset responsible for intensifying individual fears were examined. **Conditioning** experiences were mostly responsible for *intensifying* fears of **Spiders**, **Modelling** experiences were mostly responsible for *intensifying* fears of **Weapons**, while **Information** experiences were mostly responsible for *intensifying* fears of **Death**, **Snakes**, **Crime**, **Predators**, **Gangs** and **Rape**. A fear of **Dogs** was equally *intensified* by **Conditioning** and **Modelling** experiences and a fear of **Crocodiles** was equally *intensified* by **Modelling** and **Information** experiences.

In a study by Muris, Merckelbach and Collaris (1997) participants predominately reported that Conditioning experiences intensified their animal fears, and especially fears of Spiders, while Information experiences intensified their fears of Danger and Death. These findings are more or less in line with the results of the present study.

5.4.2. Age differences

The two age groups, namely **Grade 5s** and **Grade 7s** did not differ significantly in their experience of the three pathways of fear acquisition that were responsible for *intensifying* their fears (see Table 19). The majority of both groups reported that **Information** experiences *intensified* their fears, while **Conditioning** was the least frequently reported pathway in this regard. A slight trend was present for **Grade 5s** to report more **Modelling** experiences which *intensified* their fears than **Grade 7s**, while slightly more **Grade 7s** reported that **Conditioning** and **Information** experiences *intensified* their fears than **Grade 5s**.

In their study exploring the effects of negative information on the enhancement of childhood fear among children aged between 4 and 12, Muris et al. (2003) also found no significant age differences as to the effect of information on increasing fear levels.

5.4.3. Gender differences

The present study found that significantly more **females** than **males** reported that the pathways of **Conditioning**, **Modelling** and **Information** had played a role in intensifying their fears (see Table 20). Thus, **females** in this particular sample seemed to be exposed to more experiences that *intensify* their fears than did **males**. However, both gender groups reported that **Information** experiences played the largest role in increasing their fear levels, while **Conditioning** was the least frequently reported pathway responsible for increasing their levels.

These findings are in contrast with those found by Field and Lawson (2003) as well as Muris et al. (2003) in which the effects of fear information on increasing fear levels were found to be the same for males and females.

5.4.4. Differences amongst socio-economic groups.

The majority of children from the **Low** (61.2%) and **High** (50.8%) socio-economic groups reported that the **Information** pathway, more so than the other two pathways, played the largest role in *intensifying* their fears, while the majority of the **Middle** socio-economic group (59.5%) reported that **Modelling** experiences played the largest role in *intensifying* their fears (see Table 21).

Significant differences were found between the three socio-economic groups, namely **Low**, **Middle** and **High**, with regard to whether **Conditioning** events, **Modelling** events as well as **Information** events *intensified* participants' fears. The most significant findings were found for the pathway of **Conditioning**, for which the **High** socio-economic group reported significantly fewer **Conditioning** experiences which *intensified* their fears than both the **Low** and **Middle** socio-economic groups, and for the pathway of **Modelling**, for which, again, the **High** socio-economic group reported significantly fewer **Modelling** experiences which *intensified* their fears than both the **Middle** and **Low** socio-economic groups. The **High** socio-economic group also reported significantly fewer **Information** experiences that were responsible for *intensifying* their fears than the **Low**

socio-economic group. It is therefore evident that members of the **High** socio-economic group of the present sample are exposed to fewer experiences or situations that *intensify* their fears than are the **Low** and **Middle** socio-economic groups.

5.4.5 Differences amongst cultural groups

The majority of all three cultural groups, namely **Black** (60.9%), **White** (51.9%) and **Coloured** (52.3%) participants reported that the **Information** pathway, more so than the other two pathways, played the largest role in *intensifying* their fears (see Table 22).

Significant differences were found between the three cultural groups with regard to whether **Conditioning** events, **Modelling** events as well as **Information** events intensified their fears. The most significant differences were found for the pathways of **Conditioning** and **Modelling**, for which significantly fewer **White** participants reported that these two pathways increased their fear levels than **Coloured** and **Black** participants. Significantly more **Black** than **White** and **Coloured** participants reported that **Information** experiences *intensified* their fears. It is therefore evident the **Black** participants in this specific sample and to some extent the **Coloured** participants are exposed to more experiences and situations which intensify their fears than are the **White** participants.

5.5 The role of the three pathways with regard to the onset of middle-childhood fears

5.5.1. Findings for all participants

Participants were asked to what extent the three pathways played a role in the actual *onset* of their fear. Results showed that the largest proportion of participants (37.6%) had **no clear idea of how their fear began**, while 29.7% of participants attributed the onset of their fear to the **Information** pathway, 20.5% attributed the onset of their fear to the **Conditioning** pathway, and 18.9% attributed the onset of their fear to the **Modelling** pathway (see Table 14).

These findings seem to support to some extent the non-associative account of fear acquisition, namely that certain fears are innate and evolutionary relevant, occurring independently of critical learning experiences (Muris, Merckelbach et al., 2002). However, one must keep in mind that the majority of participants reported that one of the three pathways marked the actual onset of their fear. The modes of onset responsible for marking the actual onset of each fear were examined. The majority of participants reporting fears of **Death**, **Snakes**, **Crocodiles**, **Predators**, **Spiders** and **Weapons** could not remember how their fears of these stimuli began. Such fears, aside from Weapons, were likely genuine threats to our ancestors and ultimately promoted survival (Graham & Gaffon, 1997). However, the majority of participants (69.1%) reported one of Rachman's three pathways as marking the *onset* of their fear, with the **Information** pathway being the most frequently reported. The majority of participants reporting fears of **Crime**, **Gangs** and **Rape** attributed the onset of these fears to the **Information** pathway, while the majority of participants reporting a fear of **Dogs** attributed the onset of their fear to the **Modelling** pathway, which is in accordance with the study of King et al. (1997) on the etiology of dog phobia. In this study the parents of 30 children were asked what the most influential factor was in the onset of their child's dog phobia, for which the majority reported **Modelling** as being the most influential factor.

The present results differ from those of Muris, Merckelbach and Collaris (1997) in which the majority of participants (39.7%) ascribed the actual onset of their fear to a **Conditioning** experience, while 32.8% could not remember how their fear began, 26.7% attributed the onset of their fear to the **Information** pathway and only 0.8% attribute the onset of their fear to the **Modelling** pathway.

Taking into consideration the vast majority of participants reporting that one of Rachman's three pathways was responsible for the actual onset of their fear, and the shortcomings of the non-associative approach, the rest of section 5.5 will focus on the associative account of fear acquisition.

5.5.2 Age differences

The two age groups, namely **Grade 5s** and **Grade 7s** did not differ significantly in their attribution of the three pathways marking the actual *onset* of their fears (see Table 19). The majority of both groups attributed the *onset* of their fear to **Information** experiences, while **Modelling** experiences were least frequently reported as marking the *onset* of their fear for both groups. A slight trend was evident for more **Grade 5s** than **Grade 7s** to report slightly more **Conditioning** and **Information** experiences that were responsible for the onset of their fear, while more **Grade 7s** than **Grade 5s** reported **Modelling** experiences that were responsible for the onset of their fear.

5.5.3. Gender differences

The two gender groups did not differ significantly in their attribution of the three pathways marking the actual *onset* of their fears (see Table 20). The majority of both groups attributed the onset of their fear to the **Information** pathway, while **Modelling** experiences again were the least frequently reported as marking the *onset* of the fears of both groups. A slight trend was evident for **males**, more so than **females**, to report more **Conditioning** experiences responsible for the *onset* of their fear, slightly more **females** than **males** reported **Information** experiences responsible for the *onset* of their fear, while a more or less equal proportion of **males** and **females** attributed the *onset* of their fear to **Modelling** experiences.

5.5.4. Differences amongst socio-economic groups

Significant differences were found between the three socio-economic groups, namely **Low**, **Middle** and **High**, with regard to which pathways were responsible for the actual *onset* of participants fears (see Table 21). All three socio-economic groups differed significantly as to what extent **Conditioning** experiences marked the *onset* of their fears, with the **Low** socio-economic group reporting significantly more **Conditioning** experiences than the **Middle** and **High** socio-economic groups and the **Middle** socio-economic group reporting significantly fewer **Conditioning** experiences responsible for

the *onset* of their fears than the other two groups. The **High** socio-economic group reported significantly fewer **Modelling** experiences than either the **Low** or **Middle** socio-economic groups but reported significantly more **Information** experiences than the other two groups.

It is therefore evident that the **Low** socio-economic groups are exposed to more **Conditioning** experiences that mark the *onset* of their fears; that the **Low** and **Middle** socio-economic groups are exposed to more **Modelling** experiences marking the *onset* of their fears and that the **High** socio-economic group is exposed to more **Information** experiences marking the *onset* of their fears.

5.5.5. Differences amongst cultural groups

Significant differences were found between the three cultural groups, namely, **Black**, **White** and **Coloured** participants, with regard to which pathways were responsible for the actual *onset* of their fears (see Table 22). The most significant differences were for the pathways of **Modelling** and **Information**, with **White** participants attributing the *onset* of their fears significantly less to **Modelling** experiences and significantly more to **Information** experiences than did **Black** or **Coloured** participants. A significant difference was also found for the pathway of **Conditioning**, with **Black** participants attributing the onset of their fears significantly more to **Conditioning** experiences than **Coloured** participants.

It is therefore evident that the **Black** participants are exposed to more **Conditioning** and **Modelling** experiences which mark the *onset* of their fears, while **White** participants are exposed to more **Information** experiences that mark the *onset* of their fears, and finally, **Coloured** participants are exposed to more **Modelling** experiences that mark the *onset* of their fears.

5.6. The Relationship between the severity of fear and the three pathways of fear acquisition.

The present study set out to test Rachman's (1977) hypothesis that "intense fears of biological significance… are more likely to be acquired by a **Conditioning** process. The common everyday fears are probably acquired by the indirect and socially transmitted process of the information-giving type and by vicarious exposure" (p.385).

5.6.1. The relationship between the severity of fear and the pathway of Conditioning

The present study found that among the participants who reported having *experienced* **Conditioning** events in relation to their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels, with significantly more subjects who reported *experiencing* **Conditioning** events in relation to their most feared stimuli or situation experiencing **high** levels of fear, rather than mild levels of fear.

In addition, among participants who reported that **Conditioning** experiences marked the actual *onset* of their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels, with significantly more subjects who reported that **Conditioning** events marked the *onset* of their most feared stimuli or situation experiencing **high** levels of fear, rather than mild levels of fear.

5.6.2. The relationship between the severity of fear and the pathway of Modelling

The present study found that among the participants who reported having *experienced* **Modelling** events in relation to their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels, with significantly more subjects who reported *experiencing* **Modelling** events in relation to their most feared stimuli or situation experiencing **high** levels of fear, rather than mild levels of fear.

However, among participants who reported that **Modelling** experiences marked the actual *onset* of their fear, no significant difference was found between those experiencing mild fear levels and those experiencing high fear levels. Therefore, those subjects who reported that **Modelling** experiences marked the *onset* of their fear, were as likely to experience low fear levels as they were to experiences high fear levels.

5.6.3. The relationship between the severity of fear and the pathway of Negative Information

The present study found that among the participants who reported having *experienced* **Information** events in relation to their fear, a significant difference was found between those reporting mild fear levels and those reporting high fear levels, with significantly more subjects who reported *experiencing* **Information** events in relation to their most feared stimuli or situation experiencing **high** levels of fear, rather than mild levels of fear.

However, among participants who reported that **Information** experiences marked the actual *onset* of their fear, no significant difference was found between those experiencing mild fear levels and those experiencing high fear levels. Therefore, those subjects who reported that **Information** experiences marked the *onset* of their fear, were as likely to experience low fear levels as they were to experiences high fear levels.

5.6.4. Conclusion

The present study thus confirmed the first section of Rachman's (1977) hypothesis that intense fears are likely to originate through **Conditioning** processes. However, the second section of his hypothesis, namely that the more common, less intense, everyday fears were likely to originate through **Modelling** and **Information** processes was not confirmed. The present study found instead that participants who reported having *experienced* **Modelling** or **Information** events in relation to their fear were more likely to experience high fear levels. And those participants who reported that **Modelling** and **Information** experiences marked the actual *onset* of their fear were as likely to experience mild fear levels as they were to experience high fear levels.

Ollendick and King (1991) divided subjects who reported fear of Snakes and Not being able to breathe into high-fearful and low-fearful groups. For subjects reporting a fear of Snakes, the main difference between the two groups was that high-fearful subjects more frequently endorsed a combination of **Modelling** plus **Information**/Instruction or a combination of all three pathways. For subjects reporting a fear of Not being able to breathe, the main difference between the two groups was that high-fearful subjects more frequently endorsed a combination of direct **Conditioning** plus **Information**/Instruction or a combination of all three pathways. This study then too failed to confirm Rachman's (1977) hypothesis, but also differed from the present study's findings, for which, even though subjects were given the opportunity to endorse a combination of the three pathways, the vast majority selected only one of the pathways. A study carried out by Withers and Deane (1995) among 191 university students also failed to confirm Rachman's (1977) hypothesis since their subjects were just as likely to ascribe their most feared and tenth-ranked fear to direct **Conditioning** processes.

King et al. (1988) indicate that these contradictory findings may suggest that the origins of children's fears and phobias need to be viewed differently than those of adults, taking into account the behaviours and attitudes taught to children by their parents and significant others. And, of course, children's ever increasing exposure to various forms of the media cannot be discounted as having a substantial influence on some of their most severe fears.

5.7. The sources of the indirect pathways of fear acquisition

5.7.1. The sources of vicarious acquisition (modelling)

Participants who indicated that they knew other people who were also afraid of their most feared stimuli or situation (meaning they experienced **Modelling** events in relation to their fear) were asked who it was they knew in order to inquire into the sources of vicarious acquisition (**Modelling**). As can be seen in Table 17, results revealed eight distinct sources, namely **Peers**; **Family in general**, which includes relatives such as

aunts, uncles, cousins, etcetera; **Mother**; **Siblings**; **Father**; **Community**, which includes neighbours, etcetera; **Television**, and finally, the **Police**. The most frequently reported source of **Modelling** in the present sample was **Peers**.

These results contradict much of the previous research on the sources of vicarious acquisition, which generally implicated parents as being the main source of Modelling. For example, King et al. (1997) found parents to be the most important source of Modelling among dog-phobic children. Graham and Gaffan (1997) found parents or older siblings to be the most important source of Modelling among children who were fearful of water. Milgram et al. (1995) found that children who had a guardian with moderate/high dental fears were twice as likely to be afraid of the dentist as compared to children who had a guardian who experienced low dental fear. And, finally, Muris et al. (1996) found a significant positive relationship between fearfulness of the child, as measured with the FSSC, and fearfulness of the mother.

As these previous studies were carried out among Dutch, American, Australian and British children, it is likely that the unique cultural characteristics of the present South African sample exert a strong influence over who are viewed and who are not viewed as important models. The fact that middle-childhood South African children view their peers as a more important source of Modelling than their parents or any other family members has important implications for possible future intervention strategies and prevention programmes.

5.7.2. The sources of negative information/instruction

Participants who indicated that they had heard frightening or scary things about their most feared stimuli or situation (namely experienced information events in relation to their fear) were asked where they had heard them in order to inquire into the sources of **Negative Information**/Instruction. As can be seen in Table 18, results revealed 14 distinct sources, namely, **Television**; **Family in general**; **Peers**; the **Community**; **Mother**; **Print Media**; **Siblings**; **School**; **Father**; **Camp**; **Cinema**; **Bible**; **Internet** and

lastly, **Domestic Workers**. The most frequently reported source of **Negative Information** was **Television**.

Previous research on the sources of Negative Information has been contradictory. A study carried out by Muris et al. (2001) on the origin of Dutch children's nighttime fears found that the vast majority of these children's fears were attributed to Negative Information, with the main source being Television, which is in line with the present study's findings. However, Pickersgill et al. (1999) found mothers to be the most important source for British female participants aged between 10 and 12 years. Field et al. (2001) found that verbal information coming from an adult (either a teacher or a stranger) changed fear beliefs in British children aged between 7 and 9 years and in a later study found that information given by peers on public speaking affect social fear beliefs among British children aged between 10 and 13 years. Clearly then, due to the limited and contradictory nature of findings on the sources of Negative Information, this area warrants further research.

As a matter of interest, the favourite television programmes of middle-childhood South African children fell into the categories of Soap Operas; Cartoons; Drama Series; Sports; Sitcoms; Movies; Reality Television; Game Shows; MTV and the News, with Soap Operas being the most frequently watched genre of television among the present sample (see Table 24). The most popular soap operas watched by the children composing the present sample included *7de Laan* ('Seventh Avenue') and *Backstage*, two locally produced programmes, and *Days of Our Lives*.

Table 24

Favourite Television Programmes of Middle-childhood South African Children

	Frequency	Percentage
Soap Opera	210	31.8
Cartoon	120	18.2
Drama Series	99	15.0
Sport	54	8.2
Sitcoms	38	5.8
Movies	20	3.0
Reality TV	20	3.0
Documentaries	4	0.6
School TV	4	0.6
Game Show	4	0.6
MTV	2	0.3
News	1	0.2

CHAPTER 6

CONCLUSION, RECOMMENDATIONS AND CRITICAL REVIEW

6.1. Main findings

6.1.1 Findings with regard to fear content

The top ten fears for the total sample of middle-childhood South African children were found to be (1) Death, (2) Snakes, (3) Crime, (4) Crocodiles, (5) Predators, (6) Spiders, (7) Gangs, (8) Weapons, (9) Dogs and (10) Rape.

Grade 5s were found to experience significantly more fear of Snakes, and **Grade 7s** were found to experience significantly more fear of Crime and Rape, which is in line with Piaget's (1972) developmental theory whereby children's fears tend to become more realistic as they increase in age.

With regard to **gender**, girls were found to report significantly more fear of Death and Crime, and Boys were found to report significantly more fear of Crocodiles.

SES levels were determined according to a study carried out by the Department of Sociology, Stellenbosch University (1995), and thus constituted Low, Middle and High socio-economic groups. The Low socio-economic group of the present study experienced significantly less fear of Death and Crime, and significantly more fear of Crocodiles and Predators, the High socio-economic group experienced significantly less fear for Snakes, Crocodiles and Dogs, and significantly more fear of Gangs and Rape, while the Middle socio-economic group experienced significantly more fear of Weapons.

The **Cultural groups** were determined by the most frequently found groups in the Western Cape, South Africa where the study took place, and thus constituted Black, White and Coloured groups. The Black participants of the present sample were found to experience significantly more fear for phenomena such as Crocodiles and Predators, and significantly less fear for phenomena such as Death and Crime. White participants were found to experience significantly more fear for phenomena such as Death, Crime, Gangs and Rape, and significantly less fear for Snakes and Crocodiles, while Coloured

participants were found to experience significantly more fears of phenomena such as Death and Weapons, and significantly less fear of Predators and Rape, otherwise Coloured participants lay somewhere in between Black and White participants with regard to fear of Snakes, Crime, Crocodiles and Gangs.

Statistical analysis revealed that there were distinct differences between the three cultural groups with regard to socio-economic status, with the majority of **Black** participants falling within the **Low** socio-economic group, the majority of **Coloured** participants falling with in the **Middle** socio-economic group, and the majority of the **White** participants' falling within the **High** socio-economic group. This would then account for the similarities found between the **Low** socio-economic group and **Black** participants, between **Middle** socio-economic group and **Coloured** participants, and between the **High** Socio-economic group and **White** participants. One would assume this to be a common finding within a country recovering from such severe political segregation and still in the process of transformation. Following which, it was hypothesised that the **Low** socio-economic and **Black** participants, due to their impoverished social conditions and repeated exposure to dangerous, life-threatening stimuli were more resilient to such stimuli and situations than the **High** socio-economic, **White** participants, and even to some degree, the **Middle** socio-economic, **Coloured** participants.

6.1.2. Findings with regard to fear levels

Approximately two thirds of the total sample reported that they experienced a high level of fear towards their most feared stimuli or situation.

No significant **age differences** were found between the Grade 5s and the Grade 7s in the present sample.

Significant **gender differences** were found, with girls reporting significantly higher fear levels than boys.

Significant differences were found among the three **socio-economic groups**, with the Low socio-economic group reporting the highest level of fear, the High socio-economic group reporting the lowest fear levels, and the Middle socio-economic group lying somewhere in between.

Significant **cultural differences** were also found, with Black participants reporting the highest level of fear, White participants reporting the lowest fear levels, with Coloured participants lying somewhere in between.

Once again, the findings between the three socio-economic groups and the three cultural groups were similar, with **Low** socio-economic and **Black** participants experiencing the highest levels of fear and the **High** socio-economic and **White** participants experiencing the lowest levels of fears. This is likely due to the fact that the **Lower** socio-economic group (as well as **Black** and **Coloured** children) are exposed to more frightening stimuli than the **High** socio-economic group (and **White** children). This is supported by the fact that the **High** socio-economic group/**White** children reported less **Conditioning** experiences than the other groups (see Tables 21& 22).

6.1.3 Findings on the role of the three pathways with regard to the experience of middle-childhood fears

The largest proportion of participants reported **Modelling** experiences (75.3%) in connection to their greatest fear, followed by **Information** experiences (67.4%) and, lastly, **Conditioning** experiences (49.4%). In addition, **Modelling** was found to be the most frequently reported pathway experienced in connection to fears of **Death**, **Snakes**, **Spiders**, **Gangs**, **Weapons** and **Dogs**. Data analysis revealed eight distinct sources of vicarious acquisition (**Modelling**), namely, in order, Peers; Family in general, which includes relatives such as aunts, uncles, cousins, etcetera; Mother; Siblings; Father; Community, which includes neighbours, etcetera; Television, and finally, Police. **Negative Information** was found to be the most frequently reported pathway experienced in connection to fears of **Crime**, **Crocodiles**, **Predators** and **Rape**. Data analysis revealed 14 distinct sources of **Negative Information**/instruction, namely, in

order, Television; Family in general, again including family members, such as aunts, uncles and cousins; Peers; Community; Mother; Print Media; Siblings; School; Father; Camp; Cinema; Bible; Internet and lastly, Domestic workers. The favourite television programmes of the present sample fell into the categories of, in order of preference, Soap Operas; Cartoons; Drama Series; Sports; Sitcoms; Movies; Reality Television; Game Shows; MTV; and the News, with Soap Operas being the most frequently watched genre of television among the present sample. **Conditioning** was the least frequently reported pathway experienced among all participants in connection to their most feared stimulus or situation.

No significant **age differences** with regard to the pathways reported in connection to the experience of the present sample's fear were found. Both Grade 5 and Grade 7 groups reported having experienced **Modelling** events most frequently and **Conditioning** events least frequently in connection to their most feared stimuli or situation.

Significantly more females reported having experienced **Information** events than did males. No significant **gender differences** were found for **Conditioning** and **Modelling** experiences. Both gender groups reported having experiences **Modelling** events more frequently and **Conditioning** events least frequently in connection to their most feared stimuli or situation.

With regard to **socio-economic differences**, results showed that the High socio-economic group reported significantly fewer **Conditioning** and **Modelling** experiences than both the Low and Middle socio-economic groups and significantly fewer **Information** experiences than the Low socio-economic group. All three socio-economic groups reported having experienced **Modelling** events more frequently than the other two pathways.

Finally, with regard to **cultural differences**, White participants were found to report **Conditioning** experiences significantly less than both Coloured and Black participants, as well as significantly fewer **Modelling** experiences than Black participants, and finally, Black participants were found to report significantly more **Information** experiences than

both White and Coloured participants. All three cultural groups reported having experienced **Modelling** events more frequently than the other two pathways.

The findings for the Socio-economic and Cultural groups were again found to be similar, with the **High** socio-economic group/**White** participants experiencing significantly fewer **Conditioning** experiences accounting, most likely, for their lower fear levels. And **Low** socio-economic group/**Black** participants experiencing more **Information** experiences, from which their fears of, for instance, Snakes and Crocodiles likely originate through African folk tales which are passed down from generation to generation.

6.1.4. Findings on the role of the three pathways with regard to intensifying middle-childhood fears

The largest proportion of participants reported that **Information** experiences (53.0%) were responsible for intensifying their fears, and thus maintaining them, whereas 42.4% of participants indicated that **Modelling** experiences caused them to be more fearful. **Conditioning** experiences (37.1%) were found to play the least prominent role. In addition, **Conditioning** experiences were mostly responsible for intensifying fears of Spiders, **Modelling** experiences were mostly responsible for intensifying fears of Weapons, while Information experiences were mostly responsible for intensifying fears of Death, Snakes, Crime, Predators, Gangs and Rape. A fear of Dogs was equally intensified by **Conditioning** and **Modelling** experiences and a fear of Crocodiles was equally intensified by **Modelling** and **Information** experiences.

No significant **age differences** were found. The majority of both the Grade 5 and Grade 7 groups reported that Information events caused them to be more fearful of there greatest fear.

With regard to **gender differences**, significantly more females than males reported that the pathways of **Conditioning**, **Modelling** and **Information** had played a role in intensifying their fears, guiding one to believe that females in this particular sample seem to have been exposed to more experiences that intensify their fears than did male

participants. Both gender groups reported that **Information** experiences were mostly responsible for intensifying their fears.

With regard to **Socio-economic differences**, the High socio-economic group in the present sample reported significantly less **Conditioning** and **Modelling** events that were responsible for intensifying their fears than did the Middle and Low socio-economic groups, as well as less significantly fewer **Information** events than the Low socio-economic group, guiding one to believe that the High socio-economic group of this particular sample seem to have been exposed to fewer experiences that intensify their fears than the Middle and High socio-economic groups. The majority of the Middle and Low socio-economic groups reported the **Information** pathway intensified their fears, while the majority of the Middle socio-economic group reported that the pathway of **Modelling** intensified their fears.

With regard to **Cultural differences**, significantly fewer White participants than Coloured and Black participants in the present sample reported that **Conditioning** and **Modelling** events were responsible for intensifying their fears. And significantly more Black participants than Coloured or White participants reported that **Information** experiences intensified their fears, guiding one to believe that the Black participants especially in this particular sample and to a certain extent the Coloured participants are exposed to more experiences that intensify their fears than are the White participants.

These findings that the **Low** and **Middle** socio-economic groups and **Black** and **Coloured** participants are exposed to more of all three types of experiences that *intensified* their fears accounts for their higher levels of fear as discussed earlier.

6.1.5. Findings on the role of the three pathways with regard to the onset of middle-childhood fears

When asked about the actual onset of their fears, the largest proportion of the present sample reported that they had no clear idea of how their fear began, followed by the **Information** pathway, the **Conditioning** pathway and, lastly, the pathway of **Modelling**.

However, the majority of participants (69.1%) reported one of Rachman's three pathways as marking the onset of their fear, with the **Information** pathway being the most frequently reported. Most participants reporting fears of Death, Snakes, Crocodiles, Predators, Spiders and Weapons could not remember how their fears of these stimuli began, while the majority of participants reporting fears of Crime, Gangs and Rape attributed the onset of these fears to the **Information** pathway, while the majority of participants reporting a fear of Dogs attributed the onset of their fear to the **Modelling** pathway. It was decided, due to the shortcoming of the non-associative approach and to the vast majority of participants that endorsed one of Rachman's pathways that the influence of the independent variables on the onset of the participants' fears would focus only on the associative account of fear acquisition.

No significant **age differences** were found. The majority of both groups attributed the onset of their fear to **Information** experiences, while **Modelling** experiences were least frequently reported.

No significant **gender differences** were found. The majority of both groups attributed the onset of their fear to the **Information** pathway, while **Modelling** experiences again were the least frequently reported.

With regard to **Socio-economic differences**, the Low socio-economic group reported significantly more, and the Middle socio-economic group significantly fewer **Conditioning** experiences than the other two groups. In turn, the High socio-economic group reported significantly more **Information** experiences and significantly fewer **Modelling** experiences than the other two groups, guiding one to believe that the Low socio-economic group are exposed to more **Conditioning** and **Modelling** experiences that mark the onset of their fears, the Middle socio-economic group are exposed to more **Modelling** experiences that mark the onset of their fears, and the High socio-economic group are exposed to more **Information** experiences that mark the onset of their fears.

With regard to **Cultural differences**, White participants attributed the onset of their fears significantly less to **Modelling** experiences and significantly more to **Information**

experiences than did Black or Coloured participants. And Black participants attributed the onset of their fears significantly more to **Conditioning** experiences than Coloured participants, guiding one to believe that Black participants are exposed to more **Conditioning** and **Modelling** experiences that mark the onset of their fears, Coloured participants are exposed to more **Modelling** experiences that mark the onset of their fears, and White participants are exposed to more **Information** experiences that mark the actual onset of their fears.

Again, strong similarities were found between the three Socio-economic groups and the three Cultural groups. Thus, the predominant fears of, for instance, Snakes and Crocodiles, experienced among the **Low** socio-economic group/**Black** participants most likely originated through **Conditioning** and **Modelling** experiences. The most predominant fears of, for instance, Weapons, experienced among the **Middle** socio-economic group/**Coloured** participants most likely originated through **Modelling** experiences. And the most predominant fears of, for instance, Death, Crime, Gangs and Rape, experienced among the **High** socio-economic group/**White** participants most likely originated through **Information** experiences.

6.1.6. Findings with regard to the relationship between the severity of fear and the three pathways of fear acquisition

Significantly more subjects who reported experiencing **Conditioning** events in relation to their most feared stimuli or situation also reported experiencing a high level of fear rather than a low fear level. Also, significantly more subjects who reported that **Conditioning** events marked the actual onset of their fear, also reported experiencing a high level of fear rather than a low fear level.

Significantly more subjects who reported experiencing **Modelling** events in relation to their most feared stimuli or situation also reported experiencing a high level of fear rather than a low fear level. However, no significant relationship was found between fear levels and **Modelling** events marking the actual onset of fear.

Significantly more subjects who reported experiencing **Information** events in relation to their most feared stimuli or situation also reported experiencing a high level of fear rather than a low fear level. However, no significant relationship was found between fear levels and **Information** events marking the actual onset of fear.

It was therefore concluded that the results confirmed the first section of Rachman's (1977) hypothesis that intense fears are likely to originate through **Conditioning** processes. However, the second section of his hypothesis, namely that the more common, less intense, everyday fears were likely to originate through **Modelling** and **Information** processes was not confirmed. It was found, instead, that participants who reported having experienced **Modelling** or **Information** events in relation to their fear were more likely to experience high fear levels. And those participants who reported that **Modelling** and **Information** experiences had marked the actual onset of their fear were as likely to experience mild fear levels as they were to experience high fear levels.

6.2. Implication of findings within a South African context

The primary purpose of the data collected in the present study was the application thereof towards treatment plans within a clinical and public-health setting and, preferably, prevention programmes to be implemented especially in areas where resources are scarce. Preventive measures possess the following qualities which make them exceptionally desirable with the South African context: 1) they spare children and their families needless suffering, 2) they possess the ability to ease the long-term burden on existing clinical and educational services, 3) it is likely to reach, and in doing so, help more children than the curative approach, which is largely based on referral, and 4) they are more closely related to the natural environment where the problems actually occur (King et al, 1988). In order to ensure the maximum effectiveness of these prevention programmes, they need to be structured in view of the target group's age, gender, socio-economic status and culture.

The fear content of middle-childhood South African children appears to be in line with other normative fear studies conducted in South Africa (Burkhardt, 2002) and

internationally (Gullone, 2000; Miller, 1983; Muris, Merckelbach & Collaris, 1997; Muris, Merckelbach, Meesters et al., 1997). However, the fear levels of this particular sample proved to be exceptionally high, with approximately two thirds of the sample reporting that they experienced high levels of fear towards their most feared stimuli or situation, rendering these children particularly susceptible to anxiety disorders, the onset of which can usually be traced back to childhood (Loxton, 2004). The highest levels of fear were reported among females, the Low socio-economic group and Black participants. Fear levels did not appear to decrease with age as was found in Ollendick and King's (1991) study conducted on a sample of children covering a similar age span. This implies that South African children tend to stay fearful and do not perhaps possess the necessary skills to cope with their fears. Prevention programmes in South Africa should thus be, for the most part, concentrated towards female children, children of lower socioeconomic groups, and Black children, across all age groups.

The content of fear differed noticeably between the two grades, between males and females, and between the three socio-economic and cultural groups, with younger children, males, the lower socio-economic group and Black children generally reporting more animal fears, such as Snakes and Crocodiles, and older children, females, the higher socio-economic group and White children reporting more fears related to Death and Danger. This appears to be a natural shift as far as the age differences are concerned, as children's perception of reality changes and so their fears become more realistic (Piaget, 1972). Gender role stereotyping could be a cause of the gender differences in fear content, whereby fearful responses to certain stimuli or situation are more acceptable for girls than for boys (Gullone & King, 1993). However, research into gender differences with regard to the content of children's fears is limited and warrants further research. It is hypothesised by the present researcher that the cultural and socio-economic differences may be explained by the tendency for the Lower socio-economic group and Black children to live in impoverished and generally violent environments and are therefore more resilient towards developing related fears, unlike White children from the Higher socio-economic group, who are relatively sheltered from such realities. The reasons for the Black children displaying more animal fears, such as of Snakes and Crocodiles, may lie in African folk tales, where they are described as "killer-crocodiles who terrorize the

people" (Teachervision.com, 2005, p.1) and in parts of West Africa it is said that a person who is attacked by a crocodile is the victim of vengeance of someone he has harmed (Teachervision.com, 2005).

The most frequently reported pathway with regard to the experience of middle-childhood fears was **Modelling.** In addition, this was the case across all of the independent variables. Further analysis revealed that the most popular source of **Modelling** was the participants' peers. Following **Modelling,** was the **Information** pathway, for which the most popular source was Television. This certainly has important implications for future intervention strategies. These most frequently mentioned sources could be guided into helping children to develop strategies for coping effectively with their specific feared objects by providing a degree of comfort when thinking about dealing with these objects and in doing so neutralising the influence of fear objects (Robinson et al., 1991). In addition, parents and caregivers should be explained the influence that certain programme content has on their children's fears and should monitor the programmes their children view. Also, the fact that females appeared to be exposed to more **Information** events than males, that the High socioeconomic group appears to be exposed to fewer **Conditioning**, **Modelling** and **Information** experiences, that Black participants were exposed to more **Information** events and White participants to fewer **Conditioning**, **Modelling** as well as **Information** events, needs to be taken into consideration when implementing prevention and intervention programmes.

The majority of participants reported that **Information** experiences had intensified their fears. In addition, this was the case for both age groups, for both gender groups, and for all three cultural groups. However, whereas the majority of Low and High SES participants also reported that **Information** experiences intensified their experiences, the majority of the low SES group reported that **Modelling** experiences had intensified their fears. Also, when planning prevention and intervention strategies, consideration has to be given to the fact that females were exposed to more **Conditioning**, **Modelling** and **Information** experiences than males; that the low SES group, and to a slightly lesser extent the Middle SES group, are exposed to more **Conditioning**, **Modelling** and **Information** experiences than the High SES group, and that the Black participants, and

to a lesser extent the Coloured participants, are exposed to more **Conditioning**, **Modelling** as well as **Information** experiences which intensify their fears. The manner in which fears originated or were intensified provides an important tool in deciding which strategy would be most effective in reducing these fears. For example, in cases where Information intensified fears, educational videos can be shown to the children explaining how harmless most species of spiders or snakes actually are or the children can be given a play in which the main character is a funny or heroic spider that saves the day.

The majority of participants reported that **Information** events had marked the actual onset of their fear. This was the case for both age groups and both gender groups. However, whereas the majority of the High socio-economic group reported that **Information** events marked the onset of their fears, the majority of the Middle socio-economic group reported that **Modelling** events marked the onset of their fears, and the Low SES group reported that **Conditioning** and **Modelling** events equally contributed to the onset of their fears. Whereas the majority of White participants reported that **Information** events marked the onset of their fears, the majority of Black and Coloured participants reported that **Modelling** events marked the onset of their fears. Also, when implementing prevention or intervention strategies, consideration has to be given to the fact that the Low SES groups were exposed to more **Conditioning** and **Modelling** experiences that marked the onset of their fears; that the Middle SES group were exposed to more **Modelling** experiences, and the High SES group were exposed to more **Information** events that marked the onset of their fears. For example, in cases where **Modelling** marked the actual onset of a specific group of children's fears the children can be taught effective coping strategies, such as self-defence classes, where they can view the actions of a fearless instructor.

Rachman's hypothesis concerning the relationship between the **Conditioning** pathway and a high level of fear was confirmed in the present study due to the fact that a positive relationship was found between both **Conditioning** *experiences* in relation to participants' fear as well as **Conditioning** experiences marking the actual *onset* of participants' fears and a high level of reported fear. Thus, perhaps South African children should be taught effective coping skills in which to engage when directly exposed to potentially

frightening stimuli or situations. This too would be useful for exposure to the indirect pathways as a positive relation was also found between **Modelling** *experiences* in relation to participants' fears and a high level of reported fear, as well as between **Information** *experiences* in relation to participants' fears and a high levels of reported fear. Social learning theories, such as that upon which Rachman (1977) bases his theory, emphasise the reciprocal interaction between the individual and his environment. It would then make sense that a child's 'efficacy expectations', meaning the learned expectation that they have about their ability or inability to cope with frightening events or situations, would be an important mediating factor (King et al., 1988). Treatment programmes should thus concentrate on increasing these expectations in South African children as a means of decreasing the severity and number of fears experienced. This, again can be done by teaching them effective coping skills, for example through self-defence classes, thereby increasing their emotional resilience.

6.3. Limitations of study

The present study is subject to the limitations of self-report questionnaires. In addition, children might not yet be capable of the self-analysis needed to determine the origins of their own fears. However the questionnaire was constructed keeping this in mind and questions were designed in their simplest form and the cognitive levels of the children involved was taken into consideration. Additional interviews with the participants, as well as teacher and parent reports would, nevertheless, have added to the richness of the data.

Although the sample of middle-childhood participants were 'closer' to the onset of their fears than an adult sample would have been, they nevertheless had to rely on their memories to conceive of their most likely source of onset. Keeping this in mind, results should be interpreted with caution. Again, extensive interviews as well as parent or teacher reports could validate the accuracy of these attributions.

A further limitation is that the testing varied slightly across the four schools, due to certain practical difficulties. In some of the schools all participants from that school were

tested at once, and at other schools participants were tested in their classrooms. During testing at school 1, which was attended by a majority of mother-tongue Xhosa-speaking children, questionnaires had to be orally translated from English into Xhosa. This could have had a unique influence on the responses of these participants. In addition, independence of responses was difficult to ensure at this particular school as classrooms were relatively overcrowded (Neumann, 2005). It is however important to keep in mind that these are circumstances that these children are used to as they form part of their everyday environment and it is necessary that testing takes place in a comfortable, familiar environment.

Lastly, the descriptions of the three pathways, **Conditioning**, **Modelling** and **Information** that were presented to the participants were oversimplifications of the parameters involved in these paradigms. As such, participants should be probed, through additional interviews, for additional details concerning their experiences of the pathways in order to establish a closeness-of-fit with these paradigms (King, et al., 1998).

6.4. Recommendations

South African children occupy a rich and diverse range of cultural backgrounds, uniquely different from the samples of participants used in previous studies. Without a doubt, it is a certainty that the more knowledge we have in our possession concerning the aetiology of South African children's fears, the better quality treatment strategies we will have at our disposal to help children suffering from such anxiety phenomena, who have few resources personally available to them, on an individual and governmental level, to afford long-term, costly treatment. Even better, such knowledge can be applied to the prevention of such anxiety phenomena at grass-roots level, where the availability of both human and financial resources is low.

In order to have an even richer body of knowledge available to us, future research should incorporate the use of interviews as well as teacher and parent reports in addition to self-report questionnaires administered to the children themselves. Ideally, questionnaires should be available in participants' mother tongue.

It is possible that the attributional style of children could play a large role in their accounts of fear acquisition, rather than the experiences themselves (Muris, Merckelbach & Collaris, 1997). In addition, the temperament of children could make them more, or less, vulnerable to certain experiences related to the development or acquisition of fears. Kagan (cited in Robinson et al., 1991), for example, found in his longitudinal study that certain children are more prone to fearful behaviours already from birth than others.

Future research in this field should include an additional measure of life stressors, in order to determine whether general stress perhaps plays some sort of mediating role in the acquisition of childhood fears through the three pathways. This would be especially interesting when evaluated across the three socio-economic and cultural groups.

But perhaps, most importantly, the findings of the present study can be applied to needy settings in the form of prevention programmes or treatment strategies, and before and after results compared as a means of determining the most effective ways of fulfilling the practical advantages of the study's results.

References

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington DC: Author.

American Psychological Association (2001). *Publication Manual of the American Psychological Association* (5th ed.). Washington DC: Author.

Angelino, H., Dollins, J., & Mech, E.V. (1956). Trends in the "fears and worries" of school children as related to socio-economic status and age. *The Journal of Genetic Psychology, 89*, 263-276.

Arntz, A. (1997). The match-mismatch model of phobia acquisition. In Graham C.L. Davey (ed.), *Phobias: A handbook of theory, research and treatment* (pp375-395). Chichester: John Wiley & Sons.

Bandura, A., & Walters, R.H. (1963). *Social learning and personality development.* New York: Holt, Rinehart and Winston, Inc.

Bauer, H. (1976). An exploratory study of developmental changes in children's fears. *Journal of Child Psychology and Psychiatry, 17*, 69-74.

Berger, K.S. (2000). *The developing person: Through childhood and adolescence*. United States of America: Worth Publishers.

Bouldin, P., & Pratt, C. (1998). Utilizing parent report to investigate young children's fears: A modification of the fear survey schedule for children-II: a research. *Journal of Child Psychology and Psychiatry, 39*(2), 271-277.

Bronfenbrenner, U. (1986). Ecology of the family as context for human development: Research activities. *Developmental Psychology, 22*(6), 723-742.

Buck, R. (1988). *Human motivation and emotion* (2nd ed.). New York: John Wiley & Sons.

Bukatko, D., & Daehler, M.W. (1995). *Child development: A thematic approach* (2nd ed.) Boston: Houghton Mifflin.

Burkhardt, K. (2002). *Fears in a selected group of middle-childhood South African children: A cross-cultural study*. Unpublished master's thesis. Stellenbosch University.

Burkhardt, K., Loxton, H., & Muris, P. (2003). Fears and fearfulness in South African children. *Behaviour Change, 20*(2), 94-102.

Burman, S. (1986). The contexts of childhood in South Africa: An introduction. In S. Burman and P. Reynolds (ed.). *Growing up in a divided society* (pp.1-15). Johannesburg: Raven Press.

Buttersworth, G., & Harris, M. (1994). *Principles of developmental psychology*. United Kingdom: Lawrence Erlbaun Associates.

Craig, G.J. (1996). *Human development* (7th ed.). New Jersey: Prentice-Hall.

Crosser, S. (1995). Childhood fears: What children are afraid of and why. *Early Childhood News, 7*(5), 13-15. Retrieved from the World Wide Web: http://wwww.earlychildhood.com/articles

Departement Sosiologie (1995). *Sosiaal-ekonomiese kenmerke van inwoners van die groter Stellenbosch gebied:Bestuursverslag*. Stellenbosch Universiteit.

Dong, Q., Yang, B., & Ollendick, T.H. (1994). Fears in Chinese children and adolescents and their relations to anxiety and depression. *Journal of Child Psychology and Psychiatry, 153*(1), 63-74.

Elbedour, S., Shulman, S., & Kedem, P. (1997). Children's fears: cultural and developmental perspectives. *Behaviour Research and Therapy, 35*(6), 491-496.

Field, A.P., Argyris, N.G., & Knowles, K.A. (2001). Who's afraid of the big bad wolf: A prospective paradigm to test Rachman's indirect pathway in children. *Behaviour Research and Therapy, 39*(11), 1259-1276.

Field, A.P., Hamilton, S.J., Knowles, K.A., & Plews, E.L. (2003). Fear information and social phobia beliefs in children: A prospective paradigm and preliminary results. *Behaviour Research and Therapy, 41*, 113-123.

Field, A.P., & Lawson, J. (2003). Fear information and the development of fears during childhood: Effects on implicit fear responses and behavioural avoidance. *Behaviour Research and Therapy, 41*(11), 1277-1293

Fields, L., & Prinz, R.J. (1997). Coping and adjustment during childhood and adolescence. *Clinical Psychology Review, 17*(8), 937-976.

Graham, J., & Gaffon, E.A. (1997). Fear of water in children and adults: Etiology and familial effects. *Behaviour Research and Therapy, 35*(2), 91-108.

Graziano, A.M., De Giovanni, I.S., & Garcia, K.A. (1979). Behavioural treatment of children's fears: A review. *Psychological bulletin, 86*, 804-830.

Gullone, E. (2000). The development of normal fear: A century of research. *Clinical Psychology Review, 20*(4), 429-459.

Gullone, E., & King, N.J. (1993). The fears of youth in the 1990's: Contemporary normative data. *Journal of Genetic Psychology, 154*(2), 137-154.

Helman, C.G. (1994). *Culture, health and illness: An introduction for health professionals* (3rd ed.) Oxford: Buttersworth-Heineman.

Hetherington, E.M., & Parke, R.D. (1993). *Child psychology: A contemporary viewpoint* (4th ed.). United States of America: McGraw-Hill, Inc.

Ingman, K.A., Ollendick, T.H., & Akande, A. (1999). Cross-cultural aspects of fear in African children and adolescents. *Behaviour Research and Therapy, 37*, 337-345.

King, N.J., Colwes-Hollins, V., & Ollendick, T.H. (1997). The etiology of childhood dog phobia. *Behaviour Research and Therapy, 35*(1), 77.

King, N.J., & Gullone, E. (1992). Manifest anxiety and fearfulness in children and adolescents. *Journal of Genetic Psychology, 153*(1), 63 – 74.

King, N.J., Gullone, E., & Ollendick, T.H. (1998). Etiology of childhood phobias: Current status of Rachman's three pathways theory. *Behaviour Research and Therapy, 36*, 297-309.

King, N.J., Hamilton, D.I., & Ollendick, T.H. (1988). *Children's phobias: A behavioural perspective*. Chichester: John Wiley & Sons.

King, N.J., Ollier, K., Iacuane, R., Schuster, S., Bays, K., Gullone, E., & Ollendick, T.H. (1989). Fears of children and adolescents: A cross-sectional Australian study using the revised-fear survey schedule for children. *Journal of Child Psychology and Psychiatry, 30*(5), 775-784.

Lesser, S.T. (1972). Psychoanalysis with children. In B.B. Wollman (ed.). *Manual of child psychopathology* (pp. 847-864) New York:McGraw-Hill.

Louw, D.A. Van Ede, D.M., & Louw, A.E. (1998). *Human development* (2nd ed.) Pretoria: Kagiso Publishers.

Loxton, H.S. (2004). *Expressed fears and coping mechanisms of a selected group of preschool children.* Unpublished doctoral thesis. Stellenbosch University.

Marks, I.M. (1978). *Living with fear: Understanding and coping with anxiety.* New York: McGraw-Hill Book Company.

Marks, I. (1987). The development of normal fear: A review. *Journal of Child Psychology and Psychiatry, 28*(5), 667-697.

Markus, M.T., Lindhout, I.E., Boer, F., Hoogendijk, t.H.G., & Arrindell, W.A. (2003). Factors of perceived parental rearing styles: The EMBU-C examined in a sample of Dutch primary school children. *Personality and Individual Differences, 34*, 503-519.

McCathie, H., & Spences, S.H. (1991). What is the Revised Fear Survey Schedule for children measuring? *Behaviour Research and Therapy, 29*, 495-502.

Menzies, R.G., & Clarke, C. (1993) The etiology of childhood water phobia. *Behaviour Research and Therapy, 31*(5), 499-501.

Menzies, R.G., & Clark, J.C. (1995). The etiology of phobias: A non-associative account. *Clinical Psychology Review, 15*(1), 23-48.

Merckelbach, H., de Jong, P.J., Muris, P., & van den Hout, M.A. (1996). The etiology of specific phobias: A review. *Clinical Psychology Review, 16*(4). 337-361.

Merckelbach, H., Muris P., & Schouten, E. (1996). Pathways to fear in spider phobic children. *Behaviour Research and Therapy, 34*(11/12), 935-938.

Meyer, J., Loxton, H., & Boulter, S. (1997). A systems approach to the enhancement of self-concept. In C de la Ray, N. Duncan, T. Shefer, & A. van Niekerk (Eds). *Contemporary issues in human development: A South African focus* (pp. 110-127). Johannesburg: International Thomson Publishing.

Milgrom, P., Mancl, C., King, B., & Weinstein, P. (1995). Origins of childhood dental fear. *Behaviour Research and Therapy, 33*(3), 313-319.

Miller, L. C. (1983). Fear and anxieties in children. In C.E. Walker, R.J. Morris & T.R. Krattochwill (Eds). *Handbook of clinical psychology*. New York: Wiley.

Miller, P.H. (1993). *Theories of developmental psychology* (3rd ed.).New York: W.H. Freeman and Company.

Muris, P., Bodden, D., Merckelbach, H., Ollendick, H., & King, N. (2003). Fear of the beast: a prospective study on the effects of negative information on childhood fear. *Behaviour Research and Therapy, 41*, 195-208.

Muris, P., & Merckelbach, H. (2000). How serious are common childhood fears? II. The parent's point of view. *Behaviour Research and Therapy, 38*, 813-818.

Muris, P., Merckelbach, H., & Collaris, R. (1997). Common childhood fears and their origins. *Behaviour Research and Therapy, 35*(10), 929-937.

Muris, P., Merckelbach, H., de Jong, P., & Ollendick, T.H. (2002). The etiology of specific fears and phobias in children: a critique of the non-associative account. *Behaviour Research and Therapy, 40*(2), 185-195.

Muris, P., Merckelbach, H., Gadet, B., & Moulaert, V. (2000). Fears, worries, and scary dreams in 4-to-12 year old children: their content, developmental patterns, and origins. *Journal of Clinical Child Psychology, 29*(1), 43-52.

Muris, P., Merckelbach, H., Mayer, B., & Prins, E. (2000). How serious are common childhood fears? *Behaviour Research and Therapy, 38*, 217-228.

Muris, P., Merckelbach, H., Meesters, C., & Van Lier, P. (1997). What do children fear most often? *Journal of Behaviour Therapy and Experimental Psychiatry, 28*(4), 263-267.

Muris, P., Merckelbach, H., Ollendick, T.H., King, N.J., & Bogie, N. (2001). Children's nighttime fears: Parent-child ratings of frequency, content, origins, coping behaviours and severity. *Behaviour Research and Therapy, 39*(1), 13-28.

Muris, P., Schmidt, H., Engelbrecht, P., & Perold, M. (2002). DSM-IV defined anxiety disorder symptoms in South African children. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 1360-1368.

Muris, P., Steerneman, P., Merckelbach, H., & Meesters, C. (1996) The role of parental fearful and modelling in children's fear. *Behaviour Research and Therapy, 34*(3), 265-268.

Neumann, A. (2005). Anxiety and parenting styles: The perspective of a sample of South African children. Unpublished master's thesis. Universiteit Maastricht.

Ollendick, T.H. (1983). Reliability and validity of the Revised Fear Survey Schedule for Children (FSSC-R). *Behaviour Research and Therapy, 21*, 685-692

Ollendick, T.H., & King, N.J. (1991). Origins of childhood fears: An evaluation of Rachman's theory of fear acquisition. *Behaviour Research and Therapy, 29*(2), 117-123.

Ollendick, T.H., & King, N.J. (1994). Fears and their level of interference in adolescents. *Behaviour Research and Therapy, 32*(6), 635-638.

Ollendick, T.H., King, N.J., & Frary, R.B. (1989). Fears in children and adolescents: Reliability and generalizability across gender, age, and nationality. *Behaviour Research and Therapy, 27*, 19-26.

Ollendick, T.H., Hagopian, L.P., & King, N.J. (1997). Specific phobias in children. In G.C.L. Davey (ed.), *Phobias: a handbook of theory, research and treatment.* (pp. 210-224). Chichester: John Wiley & Sons.

Ollendick, T.H., Matson, J.L., & Helsel, W.J. (1985). Fears in children and adolescents: normative data. *Behaviour Research and Therapy, 23*(4), 465-467.

Ollendick, T.H., Yang, B., Dong, Q., Xia, Y., & Lin, L. (1995). Perceptions of fear in other children and adolescents: the role of gender and friendship status. *Journal of Abnormal Child Psychology, 23*(4), 439-452.

Ollendick, T.H., Yang, B., King, N.J., Dong, Q., & Akande, A. (1996). Fears in American, Australian, Chinese, and Nigerian children and adolescents: A cross-cultural study. *Journal of Child Psychology and Psychiatry, 37*, 213-220.

Piaget, J. (1972). *The child and reality: Problems of genetic psychology*. London: Frederick Muller, Ltd.

Pickersgill, M.J., Valentine, J.D., Pincus, T., & Foustok, H. (1999). Girls fearfulness as a product of mothers' fearfulness and fathers authoritarianism. *Psychological Reports, 85*, 759-760.

Rachman, S. (1977). The conditioning theory of fear-acquisition: a critical examination. *Behaviour Research and Therapy, 15*, 375-387.

Rachman, S.J. (1990). *Fear and courage* (2nd ed.). United States of America: W.H. Freeman and Company.

Rachman, S (1991). Neo-conditioning and the classical theory of fear acquisition. *Clinical Psychology Review, 11*, 155-173.

Rachman, S. (1998). *Anxiety.* East Sussex, UK: Psychology Press Ltd., Publishers.

Reber, A.S., & Reber, E. (2001). *The penguin dictionary of psychology* (3rd ed.). London: Penguin Books.

Robinson, III., Edward, H., & Rotter, S.C. (1991). Children's fears: Towards a preventive model. *School counselor, 38*(3), 187-203.

Sadock, B.J., & Sadock, V.A. (2003). *Kaplan and Sadock's synopsis of psychiatry: Behavioural sciences/clinical psychiatry* (9th ed.). Philadelphia: Lippincott Williams & Wilkins.

Sidana, U.R. (1975). Socio-economic status of family and fear in children. *Journal of Social and Economic Studies, 3*, 89-99.

SPSS for Windows, Rel. 11.01.2001. Chicago: SPSS, Inc

Swartz, L. (1998). *Culture and mental health: A Southern African view*. Cape Town: Oxford University Press.

Teachervision.com. (2005). African folk tales – background information. Retrieved from the World Wide Web: http://www.teachervision.fe.com/page/3716.html

Tikalsky, F.D., Wallace, S.D. (1988). Culture and the structure of children's fears. *Journal of Cross-Cultural Psychology, 19*(4), 481-492.

Wenar, C. (1994). *Developmental psychopathology: From infancy through adolescence*. New York: McGraw-Hill, Inc.

Withers, R.D., & Dean, F.P. (1995). Origins of common fears: Effects on severity, anxiety responses and memories of onset. *Behaviour Research and Therapy, 33*(8), 903-915.

ADDENDUM A

WESTERN CAPE EDUCATION DEPARTMENT: INFORMATIVE LETTER

The Head: Education
(For Attention: Director: Education Research)
Western Cape Education Department
Private Bag X9114
Cape Town
8000

April 2004

Dear Dr Cornelissen

RE: PERMISSION TO CARRY OUT THESIS RESEARCH

I am a psychology masters student at the University of Stellenbosch and I am currently planning to conduct my master's degree thesis on the following topic:

The Origins of Fears in a Selected Group of Middle Childhood South African Children

The research forms part of a larger project being conducted by Dr HS Loxton at the University of Stellenbosch regarding childhood fears. The study aims to provide a comprehensive profile of the origins of fears as experienced among middle-childhood South African children. Specific fears are prevalent among middle-childhood children (Muris, Merckelbach, Gadet, & Moulert, 2000). South African children, especially, experience high levels of fears (Burkhardt, Loxton & Muris, 2003) due to factors such as violence and poverty. Very little research has been done on the origins of these fears, especially within a South African context. It is imperative that research is done on the origins of childhood fears within a South African context for the purpose of effective

treatment plans, but even more importantly, for the implementation of future prevention strategies. The proposed study will examine the origin of middle-childhood fears on the basis of Rachman's (1977) three pathways theory. Rachman (1977, 1991) claims that there are three pathways related to the acquisition of fears, namely, 1) conditioning, 2) vicarious learning (modelling), and 3) the transmission of negative information and/or instructions.

Should consent be given, children attending grades 5 and 7 will be asked to complete a short biographical questionnaire (see Addendum E), as well as one self constructed questionnaire (see Addendum F) on the origins of childhood fears, adapted from a study carried out by Muris, Merckelbach and Collaris (1997) on the content and origins of common childhood fears. The data obtained will be used to determine the most commonly reported pathways, and to examine the distribution of the three pathways along the independent variables, age, gender, socio-economic status, and culture. The study will also test the relationships between severity of fears and conditioning, vicarious learning (modelling) and the transmission of negative information/instruction. In addition, the sources of vicarious learning (modelling) and the transmission of negative information/instruction will be determined. Testing will not exceed the time of one class period and will take place on one occasion only.

The following conditions will be met:

1. The principal/teachers/learners are under no obligation to assist in this investigation.
2. The principal/teachers/learners should not in any way be able to be identified from the results of this investigation.
3. Individual consent will be obtained from each child.
4. All the arrangements concerning this investigation will be done personally.
5. The conditions, as stated in 1 – 4 above, will be submitted unamended to the school principal where the intended research is to be done.
6. A brief summary and completed thesis will be provided to the Director: Curriculum Management (Research Section).

Thank you for considering my application.

Regards

Ms M du Plessis
Research Masters Student
Department of Psychology
Stellenbosch University

Dr HS Loxton
Supervisor
Department of Psychology
Stellenbosch University

ADDENDUM B

Navrae
Enquiries
IMibuzo **Dr RS Cornelissen**

Telefoon
Telephone
IFoni (021) 467-2286

Faks
Fax
IFeksi (021) 425-7445

Verwysing
Reference
ISalathiso 20040528-0056

Wes-Kaap Onderwysdepartement
Western Cape Education Department
ISebe leMfundo leNtshona Koloni

Miss Michelle Du Plessis
5 Gardenia Street
Heldervue
SOMERSET WEST
7130

Dear Miss M. Du Plessis

RESEARCH PROPOSAL: THE ORIGINS OF FEARS IN A SELECTED SAMPLE OF MIDDLE-CHILDHOOD SOUTH AFRICAN CHILDREN .

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **28th May 2004 to 31st July 2004.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December 2004).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the Principal where the intended research is to be conducted.
9. Your research will be limited to the following schools: [redacted], [redacted], [redacted], [redacted].
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Education Research
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: **HEAD: EDUCATION**
DATE: 20th July 2004

ADDENDUM C

PRIMARY SCHOOL: INFORMATIVE LETTER

I am currently doing research for my Master's Degree in Research Psychology at the University of Stellenbosch. The study aims to provide a comprehensive profile of the origin of fears as experienced among middle-childhood South African children. Specific fears are prevalent among middle-childhood children (Muris, Merckelbach, Gadet & Moulert, 2000). South African children, especially, experience high levels of fears (Burkhardt, Loxton & Muris, 2003) due to factors such as violence and poverty. Research done on the origins of these fears would be of vital use in the construction of effective treatment plans, and even more importantly, for the implementation of future prevention strategies.

Should consent be given, children attending grades 5 and 7 will be asked to complete a single questionnaire regarding biographical information as well as the origins of their fears. Testing will take place on one occasion only and will not exceed the time of one class period.

To this end, this letter is a friendly request to you as headmaster, to allow the children falling in the range of the proposed study, to participate in the research project. It is further a request for obtaining the needed biographical information of the parent/caregiver, specifically the occupation and level of education of the parents, in order to estimate the level of socio-economic status of the child. Informed consent will be obtained from each child. Complete confidentiality and anonymity will be assured, and in reporting research results, the children and the school will only be referred to by such aspects as gender, age, socio-economic status, and culture.

It would be preferable if you do not discuss anything regarding the research with the children prior to the research date. Should you be interested, arrangements can be made to discuss the findings of the group during a general feedback session.

Arrangements with regard to a visit from the researcher prior to the test date will be made during which questions or queries will be addressed.

Your assistance in the above regard is highly appreciated and it is hoped that your participation in this research will be of benefit to both yourself and the children.

Should you at any time wish to contact me, I may be reached at 083 743 3021

I thank you in advance for your co-operation.

Yours sincerely,

_____

Ms. M du Plessis
Supervisor: Dr HS Loxton
Department of Psychology
Stellenbosch University

ADDENDUM D

Die Universiteit Stellenbosch wil graag meer weet van kinders se vrese. Dit is normaal dat alle kinders vrese het. Deur hierdie vorm in te vul, kan jy ons help om kinders van jou ouderdom se vrese beter te verstaan en ook moontlik, ander kinders te help.

At Stellenbosch University we want to know more about children's fears. It is normal for all children to have fears. By filling out this form, the information that you give us will help us to better understand the fears of children your age and, also possibly, help other children.

Hiermee gee ek,……**, toestemming dat ek vrywillig sal deelneem aan die projek. Daar is aan my verduidelik dat die inligting vertroulik hanteer sal word en dat my naam nie bekend sal word nie. Ek verstaan waaroor die projek gaan.**
Datum :……

Hereby I,……,…….. give consent that I will participate voluntarily in the project. It has been explained to me that the information is confidential and that my name will not be published. I understand what the project is about.
Date:……

ADDENDUM E

Beantwoord asseblief elk van die volgende vrae / *Please answer all of the following questions:*

Biografiese Vraelys/ Biographical Questionnaire

1.Wat is jou naam en van?
What is your name and surname?

2. Is jy ‘n seun of ‘n meisie — □ Seun □ Meisie
Are you a boy or a girl? — □ *Boy* □ *Girl*

3. Hoe oud is jy?
How old are you?

4.Wanneer is jou verjaarsdag?
What is your date of birth?

5. Watter ras is jy?
   What race are you?
   - □ Swart/*Black*
   - □ Wit/*White*
   - □ Kleurling/*Coloured*
   - □ Ander/*Other*

   Noem asseblief/*Please Specify*

7. Watter taal praat jy?
   What language do you speak?

   Tuis: *At home:*
   - □ Afr
   - □ Eng
   - □ Xhosa
   - □ Ander/ *Other*

   By die skool: *At school:*
   - □ Afr
   - □ Eng
   - □ Xhosa
   - □ Ander/ *Other*

ADDENDUM F

Vrees-Keuse-Lys (VKL)
Fear Option List (FOL)

1. Kies net een van die volgende waarvoor jy die meeste bang is.
Choose only one of the following that you are most scared of

□ Slange/*Snakes*
□ Predatore (bv. tier, leeu, haai)/*Predators (e.g. tiger, lion, shark)*
□ Wapens/*Weapons*
□ Misdaad/*Crime*
□ Dood/*Death*
□ Bende/*Gangs*
□ Spinnekoppe/*Spiders*
□ Vervoer (bv. as 'n voertuig jou raakry)/*Transport (e.g., being hit by a car)*
□ Honde/*Dogs*
□ Krokodille/*Crocodiles*
□ Ander/*Other:*

2. Hoe bang is jy daarvoor?
How scared are you of it?

□ Net 'n bietjie bang /*A little bit scared*
□ Baie bang/*Very scared*

3. Hoe het jou vrees van die bogenoemde begin? Kies net een van die volgende.
How did your fear of the above begin? Choose only one of the following.

□ Het jy 'n slegte of bangmaakervaring gehad daarmee?
Did you have a bad or frightening experience with it?
□ Het jy iemand geken wat ook daarvoor bang is?
Did you know someone who was also afraid of it?
□ Het jy bangmaakdinge daaroor gehoor?
Did you hear frightening things about it?
□ Ek weet nie.
I don't know.

4. Het jy ‘n slegte of bangmaakervaring gehad met die vrees wat jy in vraag 1 gekies het?
   Did you have a bad or frightening experience with the fear that you chose in question 1?

□ Ja/*Yes*
□ Nee/*No*

5. Indien ‘Ja’, het die bangmaakervaring veroorsaak dat jy meer bang is?
   If ‘Yes’, did the frightening experience cause you to be more fearful?

□ Ja/*Yes*
□ Nee/*No*

6. Weet jy van ander mense wat ook bang is vir die vrees wat jy in vraag 1 gekies het?
   Do you know other people who are also afraid of the fear you chose in question1?

□ Ja/*Yes*
□ Nee/*No*

Antwoord vrae 7 en 8 net as jy ‘Ja’ vir vraag 6 gekies het.
Only answer questions 7 and 8 if you answered ‘Yes’ to question 6.

7. Indien ‘Ja’, wie is dit?
   If ‘Yes’, who is it?

8. Het die ander mense se vrees daaroor veroorsaak dat jy meer bang is?
   Did the other peoples fear thereof cause you to be more fearful?

□ Ja/*Yes*
□ Nee/*No*

9. Het jy bangmaakdinge gehoor oor die vrees wat jy in vraag 1 gekies het?
   Did you hear frightening or scary things about the fear that you chose in question1?

□ Ja/ *Yes*
□ Nee/ *No*

Antwoord vrae 10 en 11 net as jy 'Ja' vir vraag 9 gekies het.
Only answer questions 10 and 11 if you answered 'Yes' to question 9.

10. Indien 'Ja', waar het jy dit gehoor?
    If 'Yes' where did you hear them from?

11. Het wat jy gehoor het veroorsaak dat jy meer bang is?
    Did what you hear cause you to be more fearful?

□ Ja/*Yes*
□ Nee/*No*

12. Wat is jou gunsteling-storie (of TV program)?
What is your favourite story (or TV programme)?

ADDENDUM G

Dear Dr Cornelissen

I would like to thank you for granting me permission to conduct research for my Master's thesis. Your cooperation was much appreciated. We have completed our data collection and everything went smoothly. The results of our studies will be shared with you upon completion. Should you have any questions, you are welcome to contact Dr Loxton.

_____ _____

Dr Loxton
Tel: 021 8083417

Michelle du Plessis

ADDENDUM H

Dear Principal

We would like to thank you, your staff and your pupils very much for your cooperation with regard to participating in research for our master's thesis. We greatly appreciate your assistance. It has been a pleasure working with your school.
The results of our studies will be shared with you upon completion.

Kind regards,

H.S Loxton

Michelle du Plessis