

**KOHLBERG'S THEORY OF MORAL
DEVELOPMENT: A CROSS-SECTIONAL
STUDY OF THE RELATIONSHIP
BETWEEN SOCIAL EXPERIENCE AND
MORAL REASONING.**

by

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This dissertation is dedicated
to my
mother and father.

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ABSTRACT

The study was undertaken to assess the relationship between social experience and moral reasoning, and to examine two aspects of Kohlberg's universality claims. The participants were 81 South Africans, comprising 40 Blacks and 41 Whites drawn from four age groups. Moral reasoning was measured by means of The Standard Issue Scoring Manual (Colby et al., 1987 a,b). Social experience was measured by means of various self devised instruments. Results revealed that aside from the 19 - 28 age group there were no significant differences in level of moral reasoning between blacks and whites. Furthermore, blacks and whites showed no significant differences in the use of autonomous moral judgements. On the moral orientations, blacks and whites showed some differences in their pattern of responses. Results also revealed significant age differences in level of moral reasoning, moral orientations and moral type. On the measures of social experience, whites were found to have a more advantaged social experience than blacks. An examination of how social experience and moral reasoning, and age and moral reasoning were related, revealed that irrespective of race, the variables that were consistently related to moral reasoning, were age and education. The combination of variables that best predicted level of moral reasoning were found to be age and social index for whites, and education for blacks. The findings of the present study also provided some support for Kohlberg's universality claims. The results were discussed in relation to the findings of past research and the social realities within the South African context. Limitations of the present study were considered and suggestions were made concerning further research.

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CHAPTER ONE

INTRODUCTION

This chapter consists of a brief discussion of the factors which provided the motivation for the present study.

The study of moral development is by no means a novel enterprise. Indeed, the preoccupation of philosophy with moral issues from the time of Aristotle underscores the rich historical heritage of moral developmental concerns. Such a rich historical heritage has not however produced a great deal of consensus as regards what constitutes morality and moral development. One theory in particular has attracted widespread attention and criticism, namely Kohlberg's theory of moral development. Despite criticisms, Kohlberg's theory has come to dominate research on moral development. This research while salutary, has been found wanting in a number of respects, in particular as regards the relationship between social experience and moral reasoning, and Kohlberg's universality claims.

Kohlberg (1968) postulated that various social experiences such as role - taking opportunities in the family, peer group, and broader societal institutions are an important influence on the moral development of the individual. Although there is some research evidence to support this, these

studies are problematic in a number of respects. For instance, some of the studies have tended to simply assume differences in social experience (e.g., Tietjen and Walker, 1985) and then to test for differences in level of moral development. Other studies while specifically testing for differences in social experiences have been limited in the number of social experiential variables that they have measured and/or the age range of their sample (e.g., White, Bushnell and Regnemer, 1978; Walker, 1986). Moreover, few studies have gone beyond simply looking at the relationship between social experience and moral development to look at the concerns individuals show when making moral choices (i.e., moral orientations), and the type of moral judgements made (i.e., moral type).

Kohlberg (1969) has also suggested that his stages of moral development are universal to all cultures and societies, and that there is a relationship between age and stage of moral development. Although substantial research has examined such a suggestion, the findings of this research on Kohlberg's universality claims have been inconsistent. Aside from the methodological and scoring problems associated with many of these studies (e.g., Holstein, 1976), the research evidence appears to vacillate between total acceptance at the one extreme to almost total rejection at the other extreme.

The objective of the present study was to examine the rela-

tionship between social experience and moral reasoning and a second objective of the present study was to examine two aspects of Kohlberg's universality claims, namely, that all his stages are universal and that there is a relationship between age and stage of moral development.

In this regard the study represents an attempt to overcome the shortcomings of past research by specifically documenting for a larger number of social experiential variables and across a broader age range, and by considering the relationship between the measures of social experience and moral reasoning, i.e., level of moral development, moral orientations, and moral type.

Furthermore, given that no previous research has been conducted within the South African context, a context which is very different from other research contexts, it is believed that the present study may provide valuable insight into the validity of these two aspects of Kohlberg's universality claims, and in this regard may provide some clarity on the controversy surrounding the findings on the universality claims.

Notwithstanding the shortcomings of existing research, a pertinent question to ask is why study the topic of moral development in the first place. Hoffman (1984) suggests that a concern with morality is important, "for the organization of society, as well as the fact that it epitomizes the

existential human dilemma of how people come to grips with the inevitable conflict between their egoistic needs and their moral obligations " (p. 279). Within the prevailing political climate in South Africa and in relation to historical events in South Africa, it is believed that the topic of morality assumes added importance.

While South Africa is not unique in its discrimination by one race group against other race groups, it is unique in its methods adopted to ensure domination by one race group over the other race groups. It is the only country in the world where there exists institutionalized racism, and as Wilson and Ramphela (1989) point out, it is the only country in the world where "social engineering" has occurred on such a wide scale. Such widespread "social engineering" has been in the form of, among other things, forced removals, migratory labour system, separate school facilities and amenities, job reservation, and differential access to resources. This has had a profound impact on the social experiences of black people in South Africa - people who have been at the "losing end" of this "social engineering." For instance, Wilson and Ramphela (1989) point to the devastating impact that racism has had on the family and other social structures of black South Africans. Blacks experience a disorganization of the family due to, among other things, overcrowding and poor living environments, and this is manifested in conflicting family relationships and a lack of respect for parents and

elders. In this regard, Burman (1986) points out that black children are robbed, "of the role models so essential for the transmission of values and experience" (p.11).. Furthermore, Wilson and Ramphela (1989) suggest that blacks experience a sense of powerlessness because of social structures which are inherently unjust. The result of this is that it often leads to "frustrated rage" and may be seen in violence in and outside of the home. Perhaps more sadly, discrimination against blacks produces feelings of, "rejection - rejection implicit in enforced separation, a rejection which produces a deep hurt and a great loss. It prevents people from learning to know each other and from understanding ones... hopes, fears and beliefs and is a continual source of friction and unrest" (Auerbach and Welsh, 1981, p.66).

Although research and theories attempting to explain the reasons for such "social engineering" and the implications of such engineering for the political, economic, emotional and psychological well being of South Africans has been prolific, few researchers have addressed the implications of such engineering for the moral development of the individual and the implications thereof for a new social order. From the perspective of psychology, primarily, researchers have looked towards social psychology for an explanation of the reasons for, and implications of this "social engineering." In this regard while much has been learnt, it is somewhat ironic that moral development as an issue should have been

largely ignored. For much of the discourse concerning the nature of South African society has revolved around the need for a new social order based upon principles of justice, equality, and fairness for all - principles and concerns which are fundamental aspects of morality. Indeed, judgements about the "rightness" or "wrongness" of the present social order, are judgements of value not of fact, judgements which are significant aspects of morality.

Within the present political context, negotiations are presently underway for a new social order that will be based upon principles of justice and fairness. As to what form this new social order will take, there is much speculation. It may be suggested that, given the nature of the social reality in South Africa where blacks and whites have very different social experiences, coupled with the relationship between social experience and moral reasoning, blacks and whites may differ significantly in terms of what they view as just and fair. In this regard, an investigation of the social experiences of blacks and whites and its relationship to moral reasoning is of fundamental importance, for only through such an investigation can one begin to understand the ramifications that living in a divided society has had on the views of the different race groups in South Africa of what is just and fair. Through such an investigation, one may gain insight into what needs to be done in terms of moral develop-

ment, so as to facilitate the emergence of a truly just society.

From the foregoing discussion, it follows that the present study is motivated by two considerations, namely, the shortcomings inherent in the existing research, and the importance of the topic of morality within the prevailing socio-political climate in South Africa.

This study differed from previous research in several ways. First, it was conducted in a research context and with a population very different to that of past research. Second, the study examined a larger number of social experiential variables as they relate to moral reasoning, i.e., level of moral development, moral orientation and moral type. Third, the study documented social experiences by means of a diary and social experience questionnaire which were both self devised. The use of a diary as a means of documenting social experiences in the area of moral development, to the best of my knowledge has not been undertaken previously. Finally, this study represented one of the few attempts to measure level of moral development with the new Standard Issue Scoring Manual, and the first attempt in the present context.

The following chapters detail the nature of this research study. Chapter 2 provides an overview of the cognitive approach to morality with particular emphasis on Kohlberg's theory. Chapter 3 consists of a critical review of the

research pertinent to the present research study, as well as the aims of this study. Chapter 4 describes the method used. In chapter 5 the results of the statistical analyses are presented. Chapter 6 provides a discussion of these results. Chapter 7 comprises a discussion of the limitations of the present study as well as recommendations for future research.

CHAPTER TWO

CONCEPTUAL FRAMEWORK

This chapter provides a review of the cognitive developmental approach to morality, with particular emphasis on Kohlberg's theory of moral development. It also includes an evaluation of the various cognitive theories of morality, as well as a discussion of the implications of the use of Kohlberg's theoretical framework for the present study.

2.1. Historical Background

The origins of the cognitive approach may be traced to the writings of Baldwin and Dewey, and was largely a retort to Darwinian functionalism (Broughton and Freeman - Moir, 1982). Dewey and Baldwin (writing during the latter 19th century and early 20th century) endeavoured to provide a broad framework by which to consider human development, although in this regard it has been intimated that Baldwin provided more concrete insights particularly concerning cognitive development (ibid.). Hence, it is suggested that it is with Baldwin's theory that one commonly associates the origins of the cognitive developmental approach.

Baldwin's theory with its emphasis on mental development was

not however widely accepted and indeed failed to establish any significant roots as an explanation of human development. Such a failure to achieve substantial recognition is not surprising given the transcendent dominance of the behaviouristic paradigm, most notably on the American continent, at the time.

Such a state of affairs changed however, most notably on the European continent which Rest (cited in Mussen, 1983) describes as characterized by "scholarship in the grand speculative tradition" (p.575), with the extension of Baldwin's theory by Piaget (1932). Piaget's theory as an explanation of human development was well received on the European continent. Ironically, however, the cognitive paradigm as encapsulated in Piaget's (1932) theory was finally to be most widely accepted in the 1950's on the American continent - the continent which previously was the bastion of positivism, rationalism and behaviourism (Siegel, 1982). To appreciate the rationale underlying Piaget's "reawakening" of Baldwin's theory and the apparent change of heart on the American continent it is necessary to consider the broader historical, socio - economic and political influences occurring at the time.

Piaget's (1932) extension of Baldwin's theory was largely predicated on his acceptance of the rationalist ideology with which Baldwin's theory was consistent (Siegel, 1982). The

rationalists, "unlike the behaviourists who believed that knowledge can be characterized in terms of stimulus - response processes, suggest that man constructs his reality or intellectual structures through an interaction between the organism and its physical and social environment " (ibid., p.50). Emler, (cited in Weinreich - Haste and Locke, 1983) suggests that there emerged three consequences of the adoption of rationalism - firstly, "the role of experience in the development of knowledge is minimized, ... Second, science is seen as somehow independent of its sociocultural origins ... Thirdly and finally, rationalism leads to the apotheosis of mathematics... " (p.49).

Piaget's adoption of the rationalist ideology was in turn greatly influenced by the economic and social conditions which prevailed on the continent of Western Europe (Siegel, 1982). It is suggested that the move to mechanization had a vastly different impact on Europe, particularly Switzerland, than it did in the United States. Mechanization in the United States resulted in the emergence of unitary standards of language and economic accomplishment. In Switzerland however, the move to the age of machinery fostered a situation of tolerance and acceptance of different cultures and language (ibid.). This, it is suggested, provided a situation which was consistent with rationalist philosophy, and fostered the emergence of a cognitive theory such as Piaget's.

In the late 1930's the behaviouristic movement in the United States had reached its zenith, and the cognitive approach was rejected from the mainstream of psychology on the premise that it was unscientific. It was the "Cold War" in the latter 1950's which led to a reawakening and rediscovery of the cognitive approach as epitomized in Piaget's (1932) work.

During this period there was a concern that the United States was lagging behind the USSR in their technological achievements, and that this situation needed to be remedied. The cognitive approach - in this instance Piaget's (1932) theory offered a possible solution in that, "Piaget was involved in the study of imagination, thinking, and reasoning - skills which are obviously necessary for technological innovation" (Siegel, 1982. p.60). Thus Piaget's cognitive approach was adopted with much fervour and conviction.

Alongside this rediscovery of Piaget's (1932) cognitive approach, and perhaps a partial cause (effect) of this renewed interest was the emergence of Kohlberg's (1958) dissertation which was in essence a replication of Piaget's work. With the advent of Kohlberg's dissertation there emerged an almost consummate preoccupation with research aimed at validating and testing the cognitive approach to morality. Such was the impact of Kohlberg's (1958) dissertation that it not only served to re - entrench the demise of the behaviouristic paradigm, but it established a new form of research on

morality, namely, cognitive research which "has generated more studies, commentary and controversy than any other" (Rest, cited in Mussen, 1983, p.574).

2.2. Basic assumptions of the cognitive approach

The cognitive developmental approach is premised on a number of assumptions. Firstly, it is axiomatic that a theory which falls under the umbrella of the cognitive paradigm, should adopt as one of its starting points the importance of cognition and cognitive processes in human development. Indeed this is reflected in Piaget's statement (cited in Kohlberg and Mayer, 1972) when he suggests that to understand development we must first understand the concept of cognition. "Cognitions are assumed to be structures, internally organized wholes or systems of internal relations. These structures are rules for processing of information..." (ibid., p.457).

Secondly, unlike the behaviouristic and social learning approaches which are predicated on a mechanistic world view, the cognitive developmental approach is premised on the organismic world view. More specifically however, the cognitive approach adopts a dialectical metaphor (ibid.). In the dialectical metaphor, "a core of universal ideas are redefined and reorganized as their implications are played out in experience and as they are confronted by their opposites in

argument and discourse" (ibid., p.456). It follows from the dialectical metaphor that development cannot simply be construed as an unfolding of instincts, sensorimotor processes or emotions, and nor can it be seen as a direct result of maturation or learning. There has to be an interaction between organism and environment. Development is perceived as a dialogue between an individual's cognitive structures and those structures of the environment (ibid.).

Thirdly, a quintessential feature of the interactionist cognitive developmental theory is the adoption of the concept of cognitive stages. The cognitive approach is a stage approach to development in which it is suggested that individuals pass through a number of developmental stages which are viewed as having certain characteristics. Although the cognitive theorists are not in complete agreement as to what constitutes a stage, what these stages are, and how many stages there are, they accept with varying degrees of conviction that stages are, universal to all cultures, that they form an invariant sequence, that stage regression is impossible and that the order of movement through these stages is unalterable and that each stage represents a state of temporary homeostasis.

One may note some concurrence of the cognitive theorists with psychoanalytic theorists on the concepts of stages, for Freud also entertained the notion of the impossibility of stage

skipping by suggesting that one must pass through the oral stage to the anal stage and then to the phallic stage of development. One cannot skip the intermediate anal stage (Learner, 1976). This concurrence however is not surprising given the fact that the psychoanalytic theory is also premised on the organismic world view. Nevertheless there are notable differences between the two theories as regards the impact of age and experience on stage progression. In psychoanalytic theory age is the necessary and sufficient variable bringing about stage transition. The importance of experience is limited to its implications for healthy integration. For the cognitive theorists however, experience is essential for stage progression to occur. As to what experiences are important and the degree of their importance, the cognitive theorists are not in complete agreement.

A fourth premise of the cognitive theorists is that there are primarily two ways in which individuals' may differ in their development. Individuals will either differ in how fast they progress through the various stages and / or they may differ in terms of level of development achieved (ibid.).

Fifthly, the cognitive theorists suggest that the correct manner in which the child should be viewed is as a moral philosopher. What they imply is that, "children spontaneously formulate moral ideas that form organized patterns of thought" (Kohlberg and Turiel, cited in Lesser, 1971, p.411).

In a sense then the child is seen as intuitively a moralist. Thus for the cognitive theorists the difference between adults and children is not that adults are moral and children are amoral and have to be taught to be moral, but rather the difference is in the way of thinking. The child does reason morally but this is different to the adults reasoning, and the reason for this difference is that adults are at a different stage of moral reasoning.

A sixth assumption is that since the individual spontaneously formulates his or her own moral ideas, morality cannot simply be viewed as conformity to rules of a society. Rather the emphasis is on the basic cognitive structures which underlie moral reasoning. In this regard cognitive theorists are primarily concerned with the form and not the content of the moral responses. The central problem for the cognitive theorists is not therefore how individuals learn specific moral rules, but rather, "is to determine the legitimate claims of people in a situation and to prioritize and balance those claims according to principles that impartial, rational people could accept as governing principles for cooperative interaction" (Rest, cited in Mussen, 1983, p.574). Morality is not a set of rules imposed upon the individual but rather as Piaget (cited in Kohlberg, 1972a) suggests, is a natural human condition and an effect of maturity.

Seventhly, the cognitive approach points to the centrality of

the concept of justice. While the cognitive theorists accept that empathy and the capacity for guilt are important in morality, unlike the social learning theorists they do not consider these concepts to be the central concepts in a theory of morality. Rather, they regard justice as the central concept in a theory of moral development (Kohlberg, 1981; Crain, 1985).

In closing off this somewhat cursory analysis of the more important assumptions of the cognitive theorists, a final premise that needs to be considered and indeed which has proved to be particularly problematic, is the assumption of a relationship between level of moral reasoning and moral behaviour. It is suggested that, "to act in a morally high way requires a high stage of moral reasoning. One cannot follow moral principles... if one does not understand or believe in them" (Kohlberg, cited in Meacham and Santilli, 1981, p.101).

2.3.Piaget's theory of moral development.

2.3.1.Piaget's view of morality

Piaget suggests that, "all morality consists of a system of rules and the essence of all morality is to be sought in the respect which the individual acquires for those rules" (cited in Cohen, 1983, p. 172). This view of what consti-

tutes morality is most clearly explicit in his book - The Moral Judgement of the Child, which it is argued, " Remains one of the most influential and seminal works" (Rest, cited in Mussen, 1983, p. 570). This research publication was largely a counter argument to Durkheim's (1961) view of society's influence in shaping the behaviour of individuals. While Piaget accepts Durkheim's view that genesis of morality in children can be traced to the learning of social and cultural norms, he suggests that this explanation is inadequate in that as children mature they develop an understanding of their social world and the nature of morality changes (Rest, cited in Mussen, 1983). Thus, Piaget (1932) suggests that there are two types of morality, namely the morality of constraint and the morality of cooperation. The morality of constraint is characteristic of the younger child, while the morality of cooperation is to be found in the morally mature individual. Moreover, Piaget suggests that the morally mature individual is that individual who has both a regard for rules as well as a sense of social justice.

2.3.2. Piaget's stages of moral development

Piaget formulated a three stage theory of moral development. The first stage is referred to as the "pre-moral period," and children of approximately five years and younger would be found at this stage of moral development

(Piaget, 1932). The characteristic feature of the early stages of this stage is a lack of concern for or awareness of rules. Piaget refers to this early phase as the phase of "motor rules", it is the phase in which the child follows his or her own rules of the game in which the purpose of the game is not to win but rather to have enjoyment and to take turns. The best that the child is able to do at this early phase in terms of obeying rules, is to attempt to integrate what he or she has seen older children doing. The nature of the rules which eschew from this integration, are that they are highly individualistic. Piaget suggests that around the age of four to five, the child's conception of rules change. He suggests that the child becomes more cognizant of rules through his or her observation and imitation of older children's rule bound behaviour. Although the child shows greater cognizance of the rules, the child is as yet unable to precisely follow the rules. The pre-moral child is unable to understand that rules represent a cooperative agreement with regards to the manner in which a particular game should be played. While the child may think that he or she is following the same rules that the older children follow, his or her game remains egocentric (Kay, 1970).

Piaget's (1932) second stage is the stage of "heteronomous morality" which it is argued is "reached" by the child when he or she is between the age of six and ten. The charac-

teristic feature of this stage is the belief in the moral absolutism of rules. Rules are seen as sacred and unalterable since they have been created by God or by adults. Something can unambiguously be defined as right or wrong - that which is right is that which is in accordance with the rules. It is suggested that, "at this stage all the moral values originate from outside the child and are thus imposed upon him as heteronomous imperatives, (moreover) it is not simply that a young child naturally does what he is told to do the more profound moral truth is that he only does what he is told to do" (Kay, 1970, p.155). Piaget (1932) points out that it is somewhat ironic that the child at this stage who is emphatic on the need to obey rules and on the unalterability of these rules is in fact incapable of obeying these rules. The individual is unable to obey these rules because he or she does not fully understand the rules, and the individual does not fully comprehend the rules because he or she has not achieved the necessary cognitive level (i.e., formal operational) of development.

The moral life of the child at this stage of development is typified by an almost consummate acquiescence to authority. All moral judgements that are made, are predicated on the view that rules are unbreakable. What is judged by the individual as moral, is that which is in accordance with these unalterable rules. Piaget refers to this type of

moral judgement as "immanent justice" (Kay, 1970). The view behind this justice is that what is right behaviour is obedient behaviour and similarly what is wrong behaviour is disobedient behaviour. "There cannot therefore in the nature of things be any concession made to motive or intention" (ibid., p.160). It is suggested that a logical consequence of this view of justice and moral behaviour, is that retribution for moral transgressions should be directly proportionate to the consequences of the transgressions (ibid.). Piaget (1932) refers to this type of retribution for moral transgression as "expiatory punishment." This is punishment for the sake of punishment itself with no recourse to the nature of the actual transgression. Given this total acquiescence to authority, Piaget suggests that the nature of the individual's relationship to others is characterized by "unilateral respect."

The next stage of moral development, Piaget refers to as "autonomous morality", and is usually reached by the time the child reaches ten or eleven years of age. In stark contrast to the previous stage, at this stage children are able to fully understand the rules. However, children at this stage realize that rules are not absolutes, they recognize that rules have been created by people and with the consent of all, can be altered. This recognition does not however imply that the virtuosity of the rules are brought into question. Rules are still regarded as worthy

of respect in that they are viewed as playing an essential role in the functioning of society, but rules are no longer viewed as moral absolutes (Kay, 1970). Piaget (1932) suggests that rules at this stage, "are now accepted because they emerge as the expression of reciprocity amongst social equals" (cited in Kay, 1970, p.162). Situations are no longer evaluated simply on the basis that they meet the requirements of rules, but recourse is made to the intent behind the behaviour.

The judgement of good and bad is no longer predicated on the criterion of obedience or disobedience to rules, but rather, "an action is now deemed to be good if it is socially fair" (Kay, 1970, p. 163). Similarly, behaviour which is judged as bad is that behaviour which is socially unfair (ibid.). Individuals at this stage of moral development are seen to prefer, what Piaget (1932) refers to as "reciprocal punishments" as the appropriate means of dealing with moral transgressions. It is suggested that "true" moral maturity is achieved when the individual's behaviour is motivated by altruistic concerns, which in turn implies a move from reciprocal concerns to a concern with equity (Kay, 1970). Indeed Piaget (1932) points out that, "what is regarded as just, is no longer merely reciprocal action, but primarily behaviour that admits of indefinitely sustained reciprocity" (p.323). Reciprocity however is still regarded as a factor, but the origins of this reciprocity

has changed from being a consequence of external law to an internal moral imperative (ibid.). The morally mature individual according to Piaget is that individual who makes moral judgements from a position of moral independence, and hence his view that the highest stage of moral development is that of moral autonomy.

Given these stages of moral development, the next issue to consider is what factors Piaget suggests, are responsible for this stage movement. Consistent with the broader assumptions of a cognitive theory discussed previously, Piaget suggests two main factors responsible for stage transition namely appropriate cognitive development and social experience. Appropriate cognitive maturation is the formal operational stage, for it is only when the child reaches this stage of cognitive development that he or she can experience a move from egocentrism characteristic of heteronomous morality to an ability to view moral issues from several perspectives - a characteristic feature of autonomous morality. As regards appropriate social experiences, Piaget differs from the psychoanalytic theorists in that he places primary emphasis on the influence of peers as opposed to the influence of parents (Graham, 1972). Piaget (1932) suggests three important reasons why peer interactions are influential in stimulating stage transition. Firstly, such interaction decreases the child's unilateral regard for the authority of adults; secondly -

it increases the individuals self regard and regard for others; and finally it assists in bringing into awareness the arbitrary nature of rules (ibid.). That Piaget emphasizes peer influences must not however be construed as rejection of the importance of adults in the child's moral development. Piaget suggests that the importance of adults in the child's moral development is to be found primarily in their capacity for retarding upward movement through their rewarding of the child's unquestioning acceptance of adult authority. Role - taking opportunities particularly within the peer group situation are emphasized as appropriate experiences influencing moral development.

2.3.3.Evaluation of Piaget's theory

Turning to the more fundamental criticisms it is suggested that, Piaget's notion that moral development is completed by the time the child reaches the age of twelve is open to question. Indeed Kohlberg (cited in Graham, 1972) suggests that, "Piaget by not extending his studies beyond the age of about twelve years, failed to come to grips with the development of true autonomy, which only properly emerges during adolescence" (P.204). It is also suggested that Piaget placed too much emphasis on the restrictive aspects of parental authority while neglecting the more positive contributions of parental authority (Graham, 1972). Furthermore, Piaget has been accused of negating the issue of

moral conflict and the ramifications of this conflict for moral development (ibid.). Piaget's research methodology has also been brought into question in that it has been suggested that it is particularly open to the influence of the experimenter effect (Cowan, 1978). In other words the answers of the children may simply be reflective of what these children thought the experimenter wanted to hear. In this regard it is suggested that, "Piaget seems curiously insensitive to the existence of this as an issue" (Cohen, 1983, p.64). It is possible therefore that children interviewed by Piaget were not developing morally, but were simply becoming more adept at interpreting the type of answers which the experimenter was looking for (ibid.). Piaget's claim that a younger child's view, that a lie told to an adult is worse than a lie told to a child, is reflective of the younger child's naiveté has been criticized on the basis that it can be interpreted differently, namely as rationality on the part of the young child. It is suggested that since in all probability a child will be punished for telling a lie to an adult, while a lie told to another child is unlikely to be punished, it is good sense rather than naiveté on the child's part to view a lie told to an adult in a more serious light (ibid.). Finally, and perhaps most damaging to Piaget's theory is the substantial conflicting empirical evidence. Conflicting empirical evidence has been found which questions (among other

things) that heteronomous children respect all rules (Turiel, cited in Flavell, 1963); that peer group participation is specifically associated with advance on measures of reciprocity (Kohlberg, 1964); and that a child who is at the autonomous stage of morality will be consistent in his or her behaviour on all aspects of morality (MacRae, cited in Flavell, 1963).

Given these criticisms of Piaget's theory it is not surprising that his theory as an adequate explanation of morality should have been rejected, and ultimately eclipsed by other theories within the cognitive developmental framework, the most notable of which was Kohlberg's (1981, 1984) theory of moral development. Indeed it is suggested that Kohlberg's theory is now the dominant theoretical explanation of morality within the cognitive framework, and that Kohlberg has made significant inroads into the claims of the social learning theorists as regards their apparent empirical validation that social reinforcement and modelling opportunities are the primary motivational forces for social behaviour (Rest, cited in Mussen, 1983). Perhaps, more importantly, Kohlberg may be regarded as that theorist who has been most influential in moving the focus of research on morality from behavioural and affectional components to the cognitive components of moral development (ibid.).

Notwithstanding this eclipsing of Piaget's approach, as

well as numerous problems with Piaget's theory, Piaget has nevertheless made substantial contributions to the study of moral development. It is suggested that Piaget was one of the first theorists to propose that moral reasoning may develop in stages and that his work has produced substantial new insights. Thus in the final analysis, while "subsequent research in the cognitive - development tradition has improved on Piaget's methodology, it has only elaborated on Piaget's general vision" (ibid., p. 573).

2.4.Kohlberg's theory of moral development.

2.4.1.Kohlberg's view of morality

For Kohlberg (1972a), "morality represents a set of rational principles of judgement and decision valid for every culture, the principles of human welfare and justice" (p.14). Principles are viewed as different to rules in that principles are seen to be "categorical imperatives" which provide a guide for selecting among behaviours and are not a prescription for behaviour (ibid.). Kohlberg (cited in Sizer, 1967) suggests that morality is most aptly construed as the form of moral judgements, which are judgements, "about the right and the good of action" (p.178). These moral judgements have certain characteristics which make them moral judgements (Colby, Kohlberg, Abrahami, Gibbs, Higgins, Kauffman, Lieberman, Nisan, Reimer, Schrad-er, Snarey, and Tappan, 1987a). Firstly, it is suggested

that these judgements are of value rather than fact, and this "distinguishes them from cognitive reasoning and judgement studied by Piaget" (ibid., p. 10). Secondly it is suggested that moral judgements are social judgements and finally these judgements are seen as prescriptive or normative judgements (ibid.).

As pointed out, Kohlberg believes that the principles of morality are valid for all societies. Moreover, Kohlberg as a stage theorist posits the existence of universal stages of moral judgement. With regard to these universality claims, Kohlberg shows some resemblance to Piaget in that, "Piaget's stage theory suggests a number of cross culturally universal age trends in the development of moral judgement... including intentionality in judgement,... Relativism in judgement, (and)... independence of sanctions..." (Kohlberg, 1968, p. 488). However, Kohlberg is more extreme in his emphasis on the universality of moral stages. In this regard a question that needs to be asked, is what allows the cognitive theorists to make such universality claims? The ability of the cognitive theorists to make such universality claims is predicated on the assumption of structuralism. By assuming structuralism the cognitive theorists distinguish between, "the content of moral judgement and its structure or form" (Colby et al., 1987a, p.2). By structure the cognitive theorists mean the patterns of thought which underlie moral beliefs

and not the specific moral beliefs themselves. Thus, by concentrating on the structure of moral beliefs rather than their content, they necessarily divorce the study of moral reasoning from cultural variability. As to the rationale underlying the focus on structure rather than content of moral beliefs, the cognitive theorists suggest that the reason for this is that, it is "the form that exhibits developmental regularity and generalizability within and across individuals" (ibid., p.2).

Related to this assumption of structuralism is the assumption of phenomenism. Kohlberg (in Colby et al., 1987a) suggests that in order to identify the deeper structure of a moral belief and to divorce it from the content it is necessary to, "adopt the subject's point of view and grasp the sense the arguments make to that person" (p.3). Such an ability can only come through a phenomenological approach to moral psychology - an approach in which, "the researcher is seeking to understand what the subject means when making moral judgements rather than attributing meaning to the judgements from some outside system of interpretation not shared by the subject" (ibid, p.2). Thus it is suggested that any analysis of moral development must necessarily consider the individual's own reasons and construction of meaning (ibid.).

This emphasis on the universality of morality and moral

judgement as well as the structuralist assumption has important ramifications for the cognitive theorist's ability to make judgements as to the adequacy of one form of moral reasoning over another, and indeed for the teaching of morality. Those approaches to morality and moral development that view morality as social conformity place particular emphasis on the relativity of moral standards. It is argued that since moral behaviour is largely conformity to cultural standards of a society, and since cultural standards vary amongst societies, what one defines as moral behaviour must be relative to the particular society, and hence comparisons amongst individuals from different societies in terms of their moral behaviour cannot and should not be made. They cannot and should not be made for this may be construed as imposing one's moral beliefs on others and/or indoctrination. Thus these approaches to morality are problematic in that they are unable to make comparisons amongst individuals from different societies as regards the adequacy of their moral behaviour (Kohlberg and Mayer, 1972). While such a comparison seems to imply a value judgement, and in this sense is itself problematic, the cognitive theorists have removed any notions of a value judgement by suggesting the universality concept. While Kohlberg and Piaget agree that moral behaviour is not simply social conformity, and that didactic instruction is not particularly important in a child's moral development (Rest, cited in Mussen, 1983), Kohlberg has gone far beyond

Piaget in his criticisms of the relativistic view of morality as well as the "bag of virtues" view of morality, and has been particularly vocal in his castigation of attempts to teach morality in the "traditional sense".

Kohlberg's approach avoids the accusations of value judgements and indoctrination in that by suggesting the existence of universal stages of moral development which are defined by their form not the content of reasoning, Kohlberg can make objective judgements as to the adequacy of one form of moral reasoning over another. The "more" moral individual will be that individual who is at a higher level of moral reasoning (Kohlberg, 1972a). This hardly constitutes a value judgement in the true sense of the word in that a higher stage of moral development is objectively more adequate than a lower stage. Kohlberg (1981) claims that a higher stage of moral reasoning is objectively more adequate than a lower stage of reasoning because there is a necessary relationship between level of cognitive development and level of moral development. That is to say, that Kohlberg in accordance with Piaget assumes an "isomorphic" relationship between cognitive and moral development. This relationship is one in which, "forms of moral judgement clearly reflects forms of cognitive logical capacity" (Kohlberg, 1981, p.134). Thus it is suggested, that individuals at a higher level of moral development are those individuals who (among other things) are at a high level of

cognitive development. Moreover it is suggested that individuals at a high level of moral reasoning will also be those individuals who act in accordance with their judgements (Kohlberg and Turiel, cited in Lesser, 1971). In saying this Kohlberg accepts Piaget's assumption of a relationship between moral reasoning and moral behaviour. Kohlberg's approach is non - indoctrinative in that it assumes that morality cannot and indeed must not be taught. As Kohlberg and Turiel (cited in Lesser, 1971) point out, the premise that moral reasoning cannot be taught, "is based on the (notion) that with each developmental change the child is making a discovery of his own. New ways of moral thinking develop from within and cannot be imposed upon the child. Change...is stimulated by conflicts" (p.54). This involves confronting the individual with other individuals who are one stage ahead in their moral development. This it is argued will result in conflict and disequilibrium which will finally be overcome when the lower stage individual moves to a higher stage (Kohlberg and Elfenbein, 1973). Thus although Kohlberg does not advocate teaching of moral values, he does advocate that teachers expose children to others at higher developmental levels, so that they can discover for themselves more adequate forms of moral judgement.

Kohlberg (1981) suggests that the "bag of virtues" option to the relativity problem has been very popular and the

obvious appeal of this approach is that by adding enough traits to the bag, we eventually come up with a list which is compatible to everyone. The problem however with this approach is that it lacks agreement over the definition of the various traits. For instance, "what is one man's integrity is another man's stubbornness..." (Kohlberg and Turiel, cited in Lesser, 1971, p.421). Perhaps more damaging to this approach is that the, "virtue terms do not reflect the underlying psychological structures by which children or adults organize their own moral decisions or actions" (ibid., p.422). Kohlberg (1981) suggests that in contrast to a "bag of virtues" the valid approach is one which derives from the Platonic view that virtue is ultimately one, and this virtue is justice. In this regard Kohlberg's theory is consistent with Piaget's in that both view justice as the central concept.

Kohlberg's view of justice is largely predicted on Rawls' (1971) notion of the type of justice which emerges in a society in which individuals are operating in the "original position" or under a "veil of ignorance," a situation in which no one knows his or her position in society. In a similar vein to Piaget's theory, Kohlberg's theory is a theory of "reflective equilibrium" in which justice is viewed as reversibility (Kohlberg, 1981). It is suggested that each stage of moral development represents stages of

justice characterized by different degrees of reversibility. At each stage the essence of a social judgement is a structure of justice, a structure involving the two main operations of justice namely equality and reciprocity. Each higher stage of moral development redefines in a more reversible way these operations (ibid.). The higher the moral stage, the greater the degree of reversibility, and the highest stage of moral development is that stage in which moral judgements are completely reversible, and it is the stage of complete equilibrium. Thus movement up the stages not only represents a move to greater justice, but also a move to greater equilibrium (ibid.).

With regard to the concept of stages, although Kohlberg and Piaget are in agreement that stages indicate successive changes in the way thinking is organized, they differ in the number of stages which they put forward as well as in the manner in which they utilize the stage concept. It may be recalled that Piaget put forward a two stage theory of moral development (although another early stage was identified) in which it was argued that moral maturity would be completed by the time an individual reached the age of twelve. Kohlberg (1981) on the other hand suggests a six stage typology (although in more recent works he has omitted stage 6 from this typology) which is not completed by the time the individual reaches twelve, but continues through adolescence and into early adulthood. Such a

suggestion was predicated on his findings that Piaget's two stage typology was unable to successfully explain moral reasoning in adolescence (Colby, et al., 1987a). That Kohlberg rejects Piaget's two stage typology as an adequate explanation of moral development, does not however imply that he rejects the heteronomy - autonomy distinction utilized by Piaget. Indeed the history of the emergence of Kohlberg's theory and his method of scoring is intimately connected with Piaget's concept of moral autonomy. While mapping the development of the individual from heteronomy to autonomy in moral judgement loses its preeminent status in Kohlberg's theory, he nevertheless accepts that autonomy is an important feature of the principled individual. As regards Kohlberg's different usage of the stage concept, it is entertained that, "whereas Piaget was tentative and indefinite about his moral judgement stages, Kohlberg makes strong statements about the properties and implications of his stages" (Rest, cited in Mussen, 1983, p.574). Kohlberg (1981) maintains that his six stage typology comprises an invariant, universal, irreversible step by step sequence and that these stages form structural wholes. Furthermore, it is suggested that unlike Piaget's stages which are difficult to apply and do not always reveal the underlying thought organization Kohlberg's stages are "better" stages in that through his purging of content from developmental assessment, Kohlberg's stages are more capable of revealing

the underlying thought organization, and this suggests his model is a strong stage model (Rest, cited in Mussen, 1983). The strength of this model as a stage model is further enhanced by Kohlberg's view that no matter what the situation is the individual will show a consistency in his or her thought organization. Kohlberg discounts the possibility of different thought organizations in different situations - a state of affairs which is tenable in Piaget's stage theory (ibid.). In other words, for Kohlberg if an individual is classified at stage two level of moral reasoning, the individual will demonstrate this reasoning irrespective of the situation which he or she finds him or herself in or indeed irrespective of how the situation changes.

It was suggested earlier that Kohlberg postulates an isomorphic relationship between cognitive development and moral development. That is to say that level of cognitive development is a necessary but not sufficient condition for moral development. If this is the case, then the pertinent question to raise is what other factors does Kohlberg regard as important in promoting stage progression? In similar style to Piaget, Kohlberg maintains that appropriate socio - moral experiences are important, and these are primarily role - taking opportunities (Walker, 1986; Kohlberg, 1971; Kohlberg in Overley, 1970). Once again however Kohlberg has gone further than Piaget, in that Piaget's

primary focus was on peer group interaction, whereas Kohlberg has placed importance on "discussing with others their respective points of view, participating in the decision-making process of groups, and participating in the secondary institutions of law, government and business" (Rest, cited in Mussen, 1983, p.575). As to why such experiences are important, Kohlberg suggests that they confront the individual with beliefs and moral perspectives which may be different to their own, resulting in a self questioning of one's own unexamined moral beliefs and assumptions. Thus they stimulate thought, and ultimately promote moral development (Kohlberg, 1972a; Kohlberg in Sizer, 1967; Kohlberg, 1973). In this regard it is important to take cognizance of the fact that while Kohlberg attributes importance to social experiences, these social experiences can only have impact if the individual is at an appropriate level of cognitive development. Moreover, while these social experiences may promote or impede moral development, they cannot alter the developmental sequence (Kohlberg, in Wolins and Gottesman, 1971).

An important issue that needs to be considered is a distinction between the construction of moral judgements, their comprehension and preference for these judgements. While Kohlberg argues for a consistency in moral reasoning across different situations, he does however recognize that individuals do not simply negate their comprehension of

judgements made by others at lower stages than themselves, and indeed they may at times show a preference for judgements at lower stages (Colby et al., 1987a). The point which Colby et al. (1987a) make, is that while individuals obviously do not always make use of the highest stage of moral reasoning that they are capable of using, and that they may show "slight decalage" they nevertheless will show an internal consistency in their moral reasoning across all situations. As regards actual moral performance however, individuals may choose to behave at a lower level of moral development than they are "capable" of. In saying this it would appear to contradict an earlier assumption that there is a high correlation between moral reasoning and moral behaviour. While at the outset this may appear to be a contradiction, Colby et al., (1987a) point out that this variance between moral reasoning and performance only occurs in situations in which there is a "significant downward press" such as for example in a prison setting which is a "low level moral atmosphere." To the extent that such situations are the exception rather than the rule, this does not fundamentally contradict the notion of a high relationship between moral reasoning and moral behaviour.

The final factor that needs to be considered is Kohlberg's technique for evaluating moral judgements. In a similar vein to Piaget, Kohlberg makes use of the clinical method

in which hypothetical moral dilemmas are presented to the subjects (Rest, cited in Mussen, 1983). Unlike Piaget however whose stories focussed on one dimension, Kohlberg's stories are not restricted to one dimension but encompass a broad range of features and topics (ibid.). This it is suggested, "has led to the identification of many new forms and features of thinking previously unnoticed" (ibid.,p.574)

2.4.2.Kohlberg's stages of moral development

Kohlberg (1981) presents six stages of moral development which are divided into three levels, namely the pre-conventional, conventional and postconventional level. Although Kohlberg is categorical in his belief that these stages reflect more than merely age trends, he does make some rather tentative conclusions about the age of the child at a particular stage. Kohlberg suggests that stages one and two should be occupied by children between the ages of ten to twelve, stage three as a dominant stage should be occupied by adolescents in the age group of thirteen to fifteen, stage four should be occupied by sixteen to eighteen year olds, stage five should be occupied by nineteen or twenty year olds, and by the age of twenty four an individual should be at stage six. It is however important to bear in mind that such age prescriptions are merely tentative, and Kohlberg (1981) is at pains to point out that

there is no necessary reason why an individual simply because he or she is an adult should be at the postconventional level of morality, and indeed Kohlberg himself has found that few individuals if any, ever reach stage six level of moral reasoning and that stage five level of moral reasoning as a dominant stage is not particularly prevalent amongst adults (Nisan and Kohlberg, 1982). Moreover the somewhat capricious nature of stage - age prescriptions is further elucidated by the review of the literature (see chapter 3) which appears to suggest that the type of society and moral demands of the society impact upon the stage of moral development attained (Parikh, 1980; Tietjen and Walker, 1985; Harkness, Edwards and Super, 1981; Snarey, Reimer and Kohlberg, 1984; Snarey, 1985).

The pre-conventional level is divided into two stages namely the obedience and Punishment stage and the stage of "Relativistic Hedonism." The first stage is the obedience and punishment stage, and at this stage the child's underlying motivation is the avoidance of punishment. The child unquestioningly accepts the superior power of adults and the fixed nature of the rules that he or she must obey. The child does what is right in order to avoid punishment handed down by powerful adults. The child at this stage is totally egocentric, unable to comprehend other viewpoints and to distinguish between self and others. This stage is similar to Piaget's first stage of moral development, but

differs somewhat in that Kohlberg views the child as operating out of fear of punishment and not unilateral respect for laws as Piaget maintains.

In stage two namely the stage of "Relativistic Hedonism" the child becomes cognizant of the relative nature of rules. Rules are no longer regarded as absolutes, and what is right, is when one follows rules when these rules are in one's own interests and in the interests of others. This stage takes on a "concrete individualistic perspective." That is, a person divorces his or her own interests and points of views from others. The individual is aware that in the pursuance of these interests, individuals may come into conflict, and that this conflict must be overcome on the basis of fairness - fairness as defined by each person being given the same amount. This stage bears some resemblance to Piaget's second stage.

The next level of morality is the conventional level of morality, and the first stage is "The stage of Mutual Expectations, Relationships and conformity" or the Good Boy/Good Girl Orientation. At this stage, "right is playing a good (nice) role, being concerned about the other people and their feelings, keeping loyalty and trust with partners, and being motivated to follow rules and expectations" (Kohlberg, 1981, p.410). In other words what is right is living up to others expectations and the reasons

for doing right is to be viewed as good in the eyes of others. It is worth noting that it is at this stage that Kohlberg suggests that individuals reason in terms of intentions (meeting other's approval) and this is in contrast to Piaget who saw such intentional reasoning occurring at his stage two.

The next stage is, "The Stage of Social System and Conscience Maintenance." This stage bears much resemblance to Kohlberg's stage one in that there is a preoccupation with the need to obey laws. However the crucial difference, and the difference which defines stage one from stage four, is that the stage one individual is unable to provide any rationale for upholding the law other than the punishment consequences for the breaking of the rules, whereas the stage four individual has a deeper understanding and broader conception of the need for rules. The stage four individual recognizes that the stability and continued existence of a social order is predicated on (among other things) the obedience of laws.

Kohlberg (1981) suggests a transitional level namely stage four and a half, which he suggests is postconventional but is not yet principled. "At stage four and a half choice is personal and subjective. It is based on emotions, conscience is seen as arbitrary and relative, as are ideas such as duty and morally right" (p.411). At this stage,

"an individual (makes) decisions without a generalized commitment or contract with society" (ibid.).

The postconventional level of morality occurs when, "moral decisions are generated from rights, values, or principles that are or could be agreeable to all individuals composing or creating a society designed to have fair and beneficial practices" (ibid.). Stage five, namely, "The stage of prior rights and Social Contract or Utility", is characterized by a respect for laws, but at the same time there is a recognition that rules may be unjust and should be changed through principles of democracy. The stage five individual also has his or her own personal values such as liberty and justice which may transcend the laws of society. The stage five individual however is unable to adequately formulate these personal values particularly when they are discordant with existing rules. In other words the stage five individual, "considers the moral point of view and the legal point of view, recognizes they conflict, and finds it difficult to integrate them." (ibid., p.412).

The final stage is "The Stage of Universal Ethical Principles." At this stage individuals have a clear understanding of moral principles that transcend the law, and these principles are the principles of justice and worth for all individuals. These principles are not something which are imposed on the individual but rather they are self chosen.

The individual at this stage is a rational individual who accepts the fundamental assumption of worth for other individuals as ends not means (ibid.). The individual at this stage clearly respects rules, but advocates a challenging of unjust laws. Indeed an individual cannot be at this stage of moral reasoning if in the face of unjust laws, the individual fails to disobey such laws.

While the description of the stages presented here by no means does full justice to Kohlberg's complex description of these stages, it does provide the necessary grounding for an evaluation of the merits and weaknesses of his theory.

Before considering the merits and weaknesses of Kohlberg's theory, two remaining issues as regards Kohlberg's theory need to be discussed, namely, moral orientations and moral type. Not only has Kohlberg provided a stage theory of moral development in which individual's are seen to progress through a number of stages, but he has also pointed to the different types of concerns or orientations which individuals' demonstrate when justifying moral choices. Moreover, although it was suggested earlier that Kohlberg has divorced structure from content in moral reasoning, this does not mean that he neglects to consider the content of moral reasoning. Although the content of moral responses do not form part of the scoring for stage of devel-

opment, they do form part of a separate coding scheme for moral type.

2.4.3.Moral orientations

Moral orientations are concerns which an individual shows when justifying moral choices. Kohlberg identifies four types of moral orientations, namely, normative; utilitarian, perfectionist and fairness orientations (Colby et al., 1987a). In the normative orientation, "there is a focus on duty or rightness as deriving from rulefulness or lawfulness... there is a concern for maintaining the normative order..." (ibid., p.51). In the utilitarian orientation, there is an emphasis on maximizing the welfare consequences for the individual ("egoistic utilitarianism") or for the group ("social utilitarianism"). In the perfectionist orientation, what is moral is that which contributes to the harmony and well being of society (ibid.). Finally, in the fairness orientation, decisions about what is moral are not based on positive or negative consequences, but rather on the basis of what is just, and justice "is a set of considerations and agreements rational persons would make if they tried to imagine law and moral decisions from the perspective of someone who did not know who they would be in a society or situation (the "original position")" (ibid., p.51).

It is suggested that the moral orientation which an individual shows when making moral choices does not determine the stage of moral development (ibid.). The same orientation can be found at several different stages, although it might be anticipated that given the focus of the normative orientation on maintaining laws, and the utilitarian orientation on maximizing welfare consequences, that these orientations would be more common amongst lower stages of reasoning.

2.4.4.Moral type

Kohlberg's work on moral type represents a refinement of Baldwin's and Piaget's theories of the development of morality (ibid.). Indeed, Colby et al. (1987a; 1987b) suggest that it represents an attempt to overcome the problems associated with Piaget's and Baldwin's theories, namely, that of confounding stage and moral type. Kohlberg identifies two moral types namely type A - "Heteronomous" and type B - "Autonomous" and suggests that every individual will make moral judgements which can be classified as either type A or type B, but that any individual will never make a moral judgement in which all the responses are classified as either type A or type B. As regards what constitutes heteronomous and autonomous type judgements, Kohlberg (in Colby et al., 1987) suggests a number of criteria on which the heteronomy - autonomy distinction is

based. These criteria include: "freedom", "mutual respect", "reversibility", "constructivism", and "choice" among others. In terms of the above criteria, the autonomous moral judgement would be one in which individual's justify moral choices without reference to external sanction (freedom), which reflect the view of treating others as one would like to be treated oneself (mutual respect), which reflect reciprocal role - taking (reversibility), which reflect an awareness of the flexibility of rules and laws (constructivism) and which are more likely to reflect a solution to a moral problem that is just and fair as defined by postconventional stages (choice). In contrast, the heteronomous moral judgement would be one in which the individual's justifications for moral choices are based upon external sanction, in which there is unilateral respect for law and authority, in which individuals adopt only one perspective when justifying moral choices, in which rules and laws are held to be sacred and inflexible, and in which justification for moral choices are more likely to be made from the standpoint of lower stages of reasoning (ibid.).

Kohlberg (in Colby et al., 1987a) makes three assumptions as regards moral type. First, that the heteronomy - autonomy distinction is developmental in nature, and this development is seen in terms of a relationship between age and

moral type with older individuals more likely to make autonomous judgements, and that moral autonomy is an achievement which is attained at some period in a person's life. Second, that the development of autonomy is influenced by socio - cultural environments and social relations. Colby et al. (1987a) suggest that the development to moral autonomy is more likely to be forthcoming in environments which foster equality and democracy and in which social relations are cooperative in nature. Third, that there is a relationship between moral type and moral action, and that morally autonomous individuals are more likely to be involved in or engaged in moral action than heteronomous individuals.

2.4.5. Evaluation of Kohlberg's theory

If one asks the question, what is the purpose of studying moral development, then surely the answer must be to gain insight into how such development takes place, and ultimately that these insights may prove to be useful information when considering problems associated with a lack of moral development. While Kohlberg was more concerned with showing what moral development might be, his approach nevertheless suggests important insights into the factors underlying moral immaturity. Although the social learning theorists also suggest such insights, the validity of these insights is restricted to specific situations and they

cannot provide insights into a general moral tendency. Kohlberg's theory however does provide such insights. Although both supporting and disconfirming evidence has been found in this regard, that some support has been found must imply at least some validity.

Related to this point is Kohlberg's claim to have solved the relativity problem. Given the fact that this problem has plagued philosophers for centuries, this in itself is a significant claim. More importantly however from this claim, Kohlberg suggests a manner in which society can be involved in the "teaching" of morality without being accused of indoctrination or of imposing values on a person. This has not only profound educational implications, but also suggests a practical way in which individuals can be stimulated to higher levels of moral development, levels at which a "better" concept of justice prevails - a concept which is urgently needed in many societies today. Obviously the validity of this in turn depends on the existence of a high correlation between moral judgement and behaviour. In this regard, interpreting the empirical evidence is by no means facile in that a large number of studies support a correlation while an almost equal number reject such a correlation. More recently Blasi (1980) has reviewed seventy five studies and has found that seventy six percent of the studies support some correlation. From this it

would appear that there is some relationship between moral behaviour and moral judgement, although whether this relationship is sufficiently strong as to warrant conclusions about a persons moral behaviour on the basis of his or her moral judgement, remains somewhat enigmatic. Nevertheless this does not detract from the importance of Kohlberg's method of "teaching" morality, for surely an opportunity to raise an individual's level of moral judgement is worth taking when such an opportunity may promise some "improved" moral behaviour and perhaps where such "teaching" is widespread amongst a population, it may lead to a more just society.

Kohlberg's universality claims are a significant insight. Kohlberg is the theorist who has most cogently and forcefully argued for the universality of moral stages and principles. The significance of these claims is that not only has Kohlberg accomplished something that few other theorists have been able to accomplish before him, but these universality claims allows him to make not only within society comparisons but also cross cultural comparisons, and in this regard is a more generally valid theory. This ability to make cross cultural comparisons is important, for it necessarily invalidates the not infrequent tendency of some individuals in modern western societies to regard their moral values and norms as in some way superior

or better than those values in non - western traditional societies.

Empirically, the results of the tests of the universality claims have been both encouraging and discouraging. The available literature (see chapter 3) appears to suggest that while there is considerable supporting evidence for the universality of the lower stages of moral development, such support does not extend to the upper stages of moral development (Snarey, 1985). Moreover, there are many aspects to these universality claims and one aspect, namely that Kohlberg's theory and his dilemmas do not sample all forms of morality or orientations, has proved to be particularly problematic (ibid.). Notwithstanding these problems, the fact that substantial support has been found for the lower stages is in itself significant.

Kohlberg's suggestion of a postconventional morality is important in that it represents a notable departure from most other theorists who have been excited by society's capacity for influencing an individuals behaviour. The significance of such a suggestion of a postconventional morality has however been somewhat diluted by the failure to observe stage six moral judgements and indeed by its ultimate negation. Nevertheless, the fact remains that Kohlberg was prepared to suggest a stage of moral judgement in which civil disobedience is put forward as the appropri-

ate response to unjust laws, a suggestion which entertained the possibility of evoking the wrath of the status quo, and a suggestion which is notably lacking among most other theorists.

The substantial number of research endeavours aimed at testing Kohlberg's theory, extending it and at times invalidating it, is further indicative of the substantial contribution that Kohlberg has made to the arena of moral development. While it is accepted that the value of a theory is not established on the basis of a head count, as was pointed out previously, there must be something about Kohlberg's theory which captured and indeed continues to capture such a wide audience, even if the audience is critical of the "performance."

Evidence of this dominant influence of Kohlberg's theory on subsequent research endeavours can be seen in (amongst other things) the numerous attempts at revising and extending his scoring system, for example, Rest's "Defining Issues Test" and Damon's taxonomy of underlying principles, to name but a few (Rest, cited in Mussen, 1983). Numerous theorists have also extended Kohlberg's moral dilemmas to include dilemmas about, politics, sex and the environment (ibid.). The moral dimensions have also been extended to include personal dilemmas, and there has also been an

increased focus on a distinction between social convention and morality (ibid.).

It is suggested that the aforementioned factors of Kohlberg's theory are some of the more important insights that his theory brings to the study of morality, and which lend credence to the belief that his theory is an appropriate and perhaps most appropriate theory from which to study moral judgement. Nevertheless there are some fundamental problems with his theory, and these problems are primarily predicated on the flood of anomolous empirical findings. Indeed on virtually all of Kohlberg's assumptions contradictory evidence has been found. Evidence has been found which (among other things) questions Kohlberg's assumptions that his stages represent an invariant developmental sequence, that cognitive development and socio - moral experiences are the primary influences on stage progression, that the stages are universal to all cultures, and as pointed out, that there is a correlation between moral behaviour and moral judgement (Siegel, 1982). These are the more important criticisms relating to the invariance of the stages and the universality of the stages. They are the more important criticisms by virtue of the fact that if it cannot be demonstrated that the stages are invariant and universal then the entire validity of his theory is open to scrutiny.

While this appears not to bode well for Kohlberg's theory, there are a number of considerations which need to be taken into account before one hastens to reject his theory. Firstly, Kohlberg has made no claims to the fact that his theory represents a watertight theory, and indeed in this regard he views the problems with his theory as one in which he has to, "patch a leaky boat" (Siegel, 1982, p.157). Secondly, it was reiterated earlier on in the discussion of Kohlberg's theory of the difficulty in interpreting the wealth of research findings on Kohlberg's theory. It was argued that the basis of this difficulty was the apparent contradictory nature of research findings - some providing support for Kohlberg's theory, others discounting the validity of his theory. Thus, the point being made is that one cannot simply dismiss his theory on the basis of some contradictory evidence, particularly in light of the fact that a consequential amount of supporting evidence has been found. Thirdly, and finally, it is believed that many of the criticisms of Kohlberg's theory are based upon its failure to consider other elements of morality. Indeed such criticisms are reflected in such statements as, "Kohlberg's... theory is too cognitive and not social enough" (Siegel, 1982, pp.156-157). While such a criticism is undoubtedly true, it is misguided for it fails to take cognisance of the fact that his theory as a cognitive theory is almost exclusively concerned with the

cognitive element, and does not make claims to represent a comprehensive theory of morality. Moreover Kohlberg himself has recognized that the purely cognitivistic viewpoint when applied to communities which are lacking in positive social experiences, is limited in value (Kohlberg, Kauffman, Scharf and Hickey, 1974). That the cognitive influences are limited in value in such situations does not mean they have no value and hence can be negated. In other words, Kohlberg recognizes the importance of other elements for a comprehensive view of morality, but is concerned only with explaining the cognitive element.

Given these latter considerations, it is believed that Kohlberg is indeed a worthy adversary in the moral arena, and that our understanding of moral development will be better facilitated by extending research on Kohlberg's theory to different contexts, using novel samples and focussing on those aspects of his theory that appear to be particularly problematic and/or less well researched.

2.4.6. Implications of the use of Kohlberg's theoretical framework for the present study

The adoption of Kohlberg's theory as the appropriate theoretical base has a number of important ramifications for the present research endeavour. Firstly, the emphasis of the research will not be on moral behaviour but rather will

be on the development of moral reasoning. The research will primarily be concerned with determining the organization or structure of an individual's judgements, as well as with discovering whether any differences exist between individuals from different population groups in terms of level of moral reasoning attained.

A second implication of using Kohlberg's theory is that the factors viewed as important in impacting on moral development will be restricted to, level of cognitive development, age, and appropriate social experiences. With regard to appropriate social experiences, although the present study will take cognisance of Kohlberg's view of the primary importance of role-taking opportunities, some attempt will be made to consider a broader view of social experiences.

A third implication is that the research will attempt to validate some aspects of Kohlberg's universality claims. In this regard, it will examine the age-stage relationships, as well as the existence of all of Kohlberg's stages in the present research context. A fourth and final implication concerns the method of measurement and assessment techniques. It follows from Kohlberg's theory that since social conformity as an index of morality is not the primary focus and since the emphasis is on moral reasoning rather than actual behaviour, that experimentally created

opportunities to transgress cannot be the appropriate method of assessing moral development. Rather the method of assessment that will be used will be the clinical interview method.

2.5. Summary and conclusion

In this chapter a brief discussion of the cognitive developmental approach to morality has been considered. It has been suggested that although Piaget's theory of moral development is problematic in a number of respects, it nevertheless has had a seminal impact on subsequent research in the cognitive developmental tradition. In particular, it has formed the basis for the emergence of Kohlberg's theory of moral development, a theory which has come to dominate the literature on morality. It has been further suggested that Kohlberg's theory has done much to enhance our understanding of morality. Most notably, Kohlberg's theory appears to have resolved the values indoctrination issue, has provided insight into the development of morality beyond childhood, and has made strong claims as regards the universality of moral stages. Moreover, Kohlberg appears to have been successful in divorcing structure from content in moral reasoning, and in so doing has overcome the problem of confounding structure and content, a problem which characterized Piaget and Baldwin's theories. Notwithstanding these significant insights, many

issues in Kohlberg's theory remain controversial. Such controversy does not however detract from the value of Kohlberg's theory, and given the paucity of research in South Africa using Kohlberg's theory of moral development, and the lack of research on the impact of social experiences on moral reasoning, Kohlberg's theoretical framework was selected as the appropriate theoretical framework for the present study.

In the following chapter, the relevant research examining aspects of Kohlberg's universality claims and the relationship between social experience and moral reasoning will be considered.

CHAPTER THREE

REVIEW OF THE LITERATURE

This chapter commences with a brief historical overview, the purpose of which is to provide some insight into the more important changes that have occurred in the empirical investigation of morality. This is followed by a discussion of the research pertaining to two aspects of Kohlberg's universality claims. Finally, research on the relationship between social experience and moral reasoning is considered. For ease of exposition this research is discussed through a division of social experience into four elements, viz., interpersonal parent - child relationships; social participation; social class and gender; education. The chapter ends with a conclusion and statement of the aims of the present study.

3.1. Historical Background

Although interest in the topic of morality dates back

to early moral philosophy, its sustained empirical investigation only began in the 1920's and 1930's. Empirical research in the 1920's was primarily centred around the efficacy of moral education classes and didactic teaching in promoting moral knowledge. The research comprised experimental tests of moral behaviour in which morality was viewed as "verbal espousal of the conventional code and an increase in honesty or service as experimentally measured." (Kohlberg and Turiel, 1973, P. 1). Social experiences as a factor impacting on moral growth were largely ignored, although some studies (e.g., Hartshorne and May, 1928) did take cognisance of the impact of social experiences. The Hartshorne and May study is of considerable historical import in that it had a seminal impact on subsequent research endeavours in the area of morality. Although this study revealed that social experiences were important influences on the moral growth of the individual, morality was found not to be a unified character trait, but rather a function of specific situations. This functional specificity notion coupled with a growing liberal antagonism towards moral education resulted in a relative decline in interest in moral education and indeed to some extent in the topic of morality (Kohlberg and Turiel, 1973).

The 1930's was a period in which numerous empirical studies were conducted in the area of morality. Unlike research in

the 1920's however, this research was preoccupied with the study of moral judgements rather than moral behaviour. The primary catalyst responsible for the shift in focus was the findings of Piaget (Darley and Shultz, 1990). In experimental studies Piaget (1932) found that younger children were not able to make intention based judgements. Piaget's studies did have problems, and much of the subsequent research during this period was aimed at testing his conclusions, and confronting some of the problems associated with his studies (Darley and Shultz, 1990). The American behaviourists were particularly vocal in their castigation of Piaget's studies, and they devoted much effort, in the form of experimental studies, to illustrate that intention based judgements were not beyond the capabilities of younger children (ibid.). Notwithstanding the problems associated with these studies, these studies are of considerable historical import in that "They established a tradition of the empirical study of human judgements, as opposed to behaviors. Thus developmental psychology came to the study of cognition far earlier than did many other fields of psychology" (ibid., p.526). Although Piaget (1932) recognized the importance of social experiences in that he suggested that moral stage progression was a function of both cognitive development and social experience, no systematic research was conducted to examine such a suggestion.

The 1940's and early 1950's was a period of relative dormancy in the study of morality. The latter 1950's witnessed a number of studies focussing on the parental disciplinary experience as a major factor in the moral growth of the individual (e.g., Whiting and Child, 1953; Sears, Maccoby and Levin, 1957). These studies were experimental studies or were studies based on self report measures by parents.

The decade of the 1960's is perhaps one of the more important time periods in the history of the study of morality. It is during this era that the division between the various theoretical approaches and empirical studies on morality became most cogently apparent. The highly influential social learning approach reached its zenith during this era, and the studies of morality within this approach were largely in keeping with the earlier studies which focussed on parental disciplinary experiences. The studies, however, also appeared to reflect a growing awareness that the punitive parental experience in itself may not be the most important experiential influence on moral behaviour. A number of studies pointed to the importance of self criticism and cognitive structuring in the development of morality (e.g., Aronfreed 1968; 1969). Although these studies remained largely experimental in nature, and the central focus was still the moral growth of the child, they nevertheless set the stage for the "winds of change" which were to occur in

1970's. By recognizing the importance of cognitive processes in the moral growth of the child, the stage was set for an embracing of social and cognitive explanations of morality.

The 1960's also witnessed the emergence of numerous social psychological experiments examining the development of prosocial behaviour. Initially these experiments involved the administration of harsh stimuli to see the impact on prosocial behaviour. In latter experiments, the harshness of the manipulation was tempered by focussing on prosocial actions within the game context (Radke - Yarrow, Zahn - Waxler and Chapman, cited in Mussen, 1983). In all these experiments the prosocial concept was studied as a concept in itself, with little recourse to theoretical underpinnings or to part of a more general behavioural repertoire. Generally these studies did not locate prosocial behaviour within the broader context of moral behaviour.

Perhaps the most significant development during this period was the emergence of the work of Kohlberg (1969). Kohlberg's theory was a watershed in a number of respects. Firstly, it placed on the agenda the need for empirical research to be extended to include the adolescent and the adult. Secondly, it brought into question the prevailing social conformity definition of morality. Thirdly, it raised the question of the appropriateness of the experimental design in assessing moral behaviour. Fourthly, it redirected attention to moral

reasoning rather than behaviour, and firmly entrenched the importance of cognitive processes. Fifthly, it questioned the values relativity doctrine, and placed on the agenda the universality of moral principles.

While the 1960's are most aptly characterized as a time in which theorists were "making their separate ways in theory and in empirical studies...." (Radke - Yarrow et al., cited in Mussen, 1983, p.476), the 1970's represent a period in which researchers merged closer together in their empirical investigations. The early and mid 1970's was a period dominated by studies attempting to validate or repudiate Kohlberg's theory. Much of these studies focussed on his universality claims, and were conducted in a variety of different societies to test these claims.

The latter 1970's while still dominated by a preoccupation with Kohlberg's theory, witnessed a growing dissatisfaction with aspects of this theory. Primarily, the cognitive approach which represented a viable alternative to the behavioural - social learning approach, had not proved to be a theory that could challenge the status quo (Darley and Shultz, 1990). Moreover, it was becoming increasingly apparent that an adequate explanation of morality needed to take into account the emotional, social, and cognitive components of morality. Such an awareness was evidenced by an extension of studies within the cognitive framework to include impor-

tant social variables such as role - taking and cultural influences. In this research there was a distinct movement away from experimental studies to naturalistic studies. Within the social learning framework, cognitive processes were increasingly taken into account. This was primarily through studies which focussed on the internalization of moral norms and the role of various social experiences in effecting such an internalization. Research on prosocial behaviours was also moving away from the consideration of the prosocial act alone, and was becoming more developmental in orientation. This research began to embrace the broader affective and emotional dimensions of prosocial behaviour.

The 1980's is most aptly characterized as a period in which researchers began to take stock of the existing theoretical approaches to morality. It is a period in which researchers rather than simply investigating existing theories, began to develop their own theories. One such development is the Neo Kohlbergian endeavour, which has significantly modified Kohlberg's original formulations. Another such development is the emergence of approaches focussing more on mental representations than on assumed cognitive stages of moral reasoning (Darley and Shultz, 1990).

In summary, although the history of the empirical investigation of morality has only spanned the last seven decades, such a brief history belies the substantial changes that have

taken place. From its early beginnings in which morality was viewed simply as a function of specific situations, research has progressed to the present day realization that a complete understanding of morality can only be achieved by taking cognisance of the emotional, social and cognitive components of morality. It is this realization that is perhaps likely to dominate research on morality in the years ahead.

In the analysis to follow, studies examining aspects of Kohlberg's universality claims as well as the relationship between social experience and moral reasoning, will be considered. So as to maintain some form of historical perspective, an attempt will be made to present the studies in chronological order.

3.2.Kohlberg's universality claims

Perhaps the most controversial aspect of Kohlberg's theory, and indeed that aspect of his theory which researchers appear most reticent to accept in its entirety, "is the claim that the development of moral reasoning.... follows a universal invariant sequence, towards the same universal ethical principles, in all cultural settings" (Snarey, 1985, p.202). In the analysis to follow, research is presented which focusses on two aspects of Kohlberg's universality claims, namely that his stages are universal to all types of cultures, and that

his stages represent an invariant developmental sequence regardless of the cultural context.

3.2.1. Culturally diverse settings

If Kohlberg's argument relating to the universality of moral stages is to be accepted, it must be demonstrated that his stages are evident in all types of cultures. Documentation on this point has been capacious, and it is suggested that although stage one to stage three are widely evidenced in almost all types of cultures, stages four and five are not common to all cultures. A review of the studies supporting these findings follows.

Given the fact that Kohlberg's original moral judgement study (1958) was predicated on a western sample of Chicago boys, numerous studies have tended to focus on the western versus non - western dicotomy as the appropriate yardstick by which to test the universality of Kohlberg's stages.

In a study by White, Bushnell and Regnemer (1978), the moral development of school children in the Bahamas was examined over a three year period. The sample consisted of 426 males and females between the ages of 8 and 17 years, all of whom were from lower socio - economic backgrounds. The research environment was a rural environment with "no hospitals, no major industries..." (ibid., p.60). All subjects were individually interviewed using three of

the standard Kohlbergian dilemmas which were moderately altered to reflect local conditions. Interviews were scored without awareness of sex or age of the subjects.

Their results revealed a number of significant findings, of which two are of particular import. First, although with age there was a decline in stage one reasoning, the majority of the participants reasoned at stages one and two, with no participants reasoning beyond stage three. Second, environmental factors were found to have an important impact on level of moral reasoning. In particular, the nature of the school system with its emphasis on the obedience of rules was found to be an important mediating factor in the apparent failure to progress to higher levels of reasoning.

The value of the White et al. (1978) findings is undermined by two methodological shortcomings. Firstly, if one is to provide conclusive evidence for the lack of higher stages (stages 4 and 5) of moral reasoning in some cultures, it is crucial that one's sample should be reflective of all ages of the population. Thus, their failure to find higher stages of moral reasoning may be more reflective of the limited age range of their sample, and of the possibility that individuals in rural societies progress less speedily through the stages than those individuals in modern societies. Secondly, a clearer understanding of what it is

about a particular culture that mitigates against the attainment of higher levels of moral reasoning, is facilitated by a clear distinction between modern - traditional and western non - western societies. While the White et al. (1978) study was conducted in a traditional non - western society, it is not clearly apparent whether the failure to observe higher levels of moral reasoning is due to the fact that the society is a traditional society, or due to the fact that it is a non - western society, or indeed due to the fact that it is a traditional non - western society, and that something associated with these societies does not sustain or encourage higher levels of moral reasoning.

Notwithstanding the shortcomings of this study, the results do support earlier findings (e.g., Edwards, 1975; Maqsdud, 1977.). The results are also supported by some of the more contemporary findings. For example, in one of the better designed studies Nisan and Kohlberg (1982) reported considerable cultural variability amongst Turkish rural and urban subjects in terms of level of moral reasoning and mode of moral justification. This study is particularly appealing in that it takes cognizance of the possibility that moral development may continue beyond the age of eighteen, by including an age range of 19-28 years. Moreover, given the fact that Turkey is a non - western society, any evidence of post conventional reasoning in urban

subjects coupled with the lack of such reasoning in rural subjects, would conclusively demonstrate that the appropriate basis for diversity is the urban (modern) - rural (traditional) dichotomy and not the western - non - western division.

This study was a longitudinal and cross - sectional study, comprising four age groups, namely 10-12, 13-15, 16-18 and 19-28 age groups. All the subjects were males and they were interviewed four times - initially, then two years after, four years after and finally six years after. The interviews comprised the standard Kohlbergian dilemmas, which were modified to make them more suitable for the Turkish context. The responses were given a stage score which was either a single stage or a mixed stage, and a substage score and a moral maturity score were also calculated.

The Nissan and Kohlberg study suggests a number of important findings: (1) moral judgement continues to develop after the age of 18 in both city and village subjects; (2) rate of moral development is slower for village subjects as compared to the city subjects; (3) village subjects tend to stabilize at stage three level of moral development whereas for city subjects almost half showed signs of stage four development. One city subject was scored at stage five; (4) mixed stages are common, although this tendency decreases, particularly in village subjects after the age

of 18; (5) village subjects consistently justify their moral decisions in the utilitarian and norm following modes as opposed to city subjects who show some predilection for the perfectionistic and deontological modes of justification.

Nissan and Kohlberg interpret these findings as supportive of the universality claims. They suggest that it is not surprising that the village subjects do not progress beyond stage 3 since, "the social ecology of the village does not seem to call for the broader, generalized system perspective which is the hallmark of stage 4" (p.875). Moreover, they suggest that the village subjects' norm following and utilitarian modes are consistent with the nature of a traditional society in which there are common and stable norms. Similarly, the city subjects' use of the perfectionistic and doentological modes of justification are consistent with the characteristics of a modern society in which rules and norms are constantly being questioned and are subject to change.

The Nissan and Kohlberg findings have been ratified in a number of studies. In a review of all cross - cultural studies done on Kohlberg's theory, Snarey (1985) points out that although 100 percent of the studies in traditional societies failed to find any evidence of postconventional reasoning (stage 4/5 or stage 5), almost 100 percent of

these studies found evidence of preconventional and conventional levels of moral reasoning. Thus it would appear from the research evidence, that Kohlberg's first three stages are culturally universal. What is less well accepted is the reasons given, for why postconventional reasoning is not evidenced in traditional societies.

The conclusion of Nissan and Kohlberg (1982) that village subjects did not achieve higher levels of moral reasoning because the nature of traditional society is such that it does not promote the development of postconventional reasoning has been brought into question. Snarey (1985) suggests that anthropological evidence reveals that not only do traditional folk societies have the necessary cognitive abilities for postconventional reasoning, but very often the necessary social experiences as well, and thus it is not that village societies do not reason at the postconventional level, but rather that Kohlberg's description of postconventional stages is incomplete. Kohlberg's postconventional stages are predicated on western philosophies and ignores the philosophies of other cultures. Thus, it is suggested that the complete absence of postconventional reasoning in folk societies may be more reflective of an inability of the individual to "pick up" such reasoning, rather than of a lack of such reasoning or of a culture which is incapable of sustaining such reasoning.

Some support for this latter argument is provided by a more recent study by Tietjen and Walker (1985) in a "Papua New Guinea Society." The study was conducted in two villages which had remained relatively isolated in terms of outside influence, and in which, "traditional social organization was still of great importance" (ibid., p.985). These villages were small scale traditional societies which had a collectivist orientation. The participants consisted of four groups of men all over the age of thirty. There was a group of traditional leaders, a group of religious leaders, a group of government leaders and a group of non - leaders.

Consistent with Nissan and Kohlberg findings, this study revealed that stage three was the highest stage attained. Leaders were found to reason at higher levels than non-leaders. The utilitarian and norm following modes of justification were also found to be the most commonly used justifications in moral decisions.

However, consistent with Snarey's (1985) suggestion that the scoring manual may be incomplete, Tietjen and Walker (1985) identified three concepts that were central to this society and that were difficult to score. These concepts were: "marawa wawe, which is best translated as a state of being in harmony with others, vina, which is the concept of repayment, and sorcery, which is still a powerful means of social control" (ibid., p.990). Tietjen and Walker suggest

the possibility that these concepts like the concept of justice may be used at different levels of moral reasoning, and that when Kohlberg's scoring manual is expanded to include these concepts, postconventional reasoning may be evidenced. When they examined the interviews they did not find any indication of these developmental levels. Nevertheless, they do not preclude such a possibility in other traditional cultures.

Although the Tietjen and Walker study is not without its problems in that the sample used was limited, and it does not clearly explicate how an examination of the interviews revealed no sign of the use of indigenous concepts at various cognitive levels, the study is of considerable worth for a number of reasons. Firstly, the fact that leaders were found to reason at a higher level than non-leaders provides support for the research on the efficacy of relevant social experiences in promoting moral reasoning. Secondly, the finding of stages one to three levels of moral reasoning in this collectively oriented society provides support, for the universality of these stages. Finally, in the earlier Nissan and Kohlberg study it was suggested that individuals in a rural society tend to stabilize at stage 3 level of moral reasoning. However, it was also intimated that a follow up study would be needed to prove this conclusively, since rural dwellers

develop more slowly than those individuals in urban areas. Although the Tietjen and Walker (1985) study is not an ideal study to test for the possibility of further moral development in that it is not a longitudinal study, it does include a number of conditions which are most conducive to postconventional moral reasoning. Even if members of folk societies do develop morally more slowly than members of other societies, one would expect that older age groups should show signs of this development. Moreover, appropriate socio - moral experiences should facilitate such development. The fact that some of the subjects in the Tietjen and Walker study were over the age of 60 and had appropriate socio - moral experiences in the form of leadership experiences, yet failed to demonstrate postconventional reasoning, provides evidence against the universality of Kohlberg's postconventional stages.

Somewhat ironically, Kohlberg himself has conceded that his scoring manual may need to be revised, in order to take into account culturally diverse examples of higher stage reasoning. Such a "concession" is predicated on the findings of an earlier study conducted by Snarey, Reimer and Kohlberg (1984) on the moral reasoning of "Kibbutz adolescents."

The Snarey et al. (1984) study was designed to test the applicability of Kohlberg's theory in a Kibbutz environ-

ment, and to identify any cultural variability in Kibbutz social - moral reasoning. The sample consisted of 92, Kibbutz born and city born youth ("Middle Eastern aliyah adolescents"). The city born youth were all from economically disadvantaged backgrounds, and they were brought to the Kibbutz when they were 12 to 13 years of age. The participants were tested on Form A of Kohlberg's moral judgement interview, and were then retested one or two years later and then five years later. In each case, the participants were interviewed in Hebrew, and the dilemmas were modified so as to represent local conditions. The interviews were scored using the new Standard Issue Scoring Manual, and the reliability of scoring was assessed by having three independent scorers score the same 20 randomly selected interviews. Inter - rater reliability was found to be high (.89 for global stage scores and .91 for weighted average scores).

The Snarey et al. (1984) study revealed age norms of moral reasoning consistent with those identified by Colby, Kohlberg, Gibbs and Lieberman (1983) in their 20 year longitudinal study of moral judgement in U.S. males. This is surprising given the fact that the Kibbutz environment is a rural environment, and the earlier studies (e.g., White, Bushnell and Regnemer, 1978) and the later studies (e.g., Tietjen and Walker, 1985) appeared to suggest that not only

do individuals in rural societies develop more slowly, but also that they fail to attain higher levels of moral reasoning. Perhaps more surprising is the finding that, "the Kibbutz mean stage scores at all ages are consistently higher than the mean stage scores in the United States and Turkey" (Snarey et al., 1984, p.148).

This apparent anomalous finding of the Snarey et al. (1984) study does not provide for a facile reconciliation in terms of the earlier and latter findings. Several possible explanations may be put forward, of which one bears mentioning since generally it is the most widely accepted explanation, and has been intimated to at various points in this analysis.

While the Kibbutz environment is a rural environment, it is not a traditional folk community, and it is this distinction between traditional and non - traditional societies which appears to account for the variations in terms of levels of moral reasoning attained. It is suggested that in traditional societies people are governed at the village level and do not have the political experience of compromise and governmental control held necessary for postconventional reasoning. While, as pointed out earlier, such a suggestion has been brought into question by Snarey (1985), even if one accepts such a suggestion, it is not entirely clear that the Kibbutz environment meets the

criteria for postconventional reasoning. Perhaps the most widely accepted characteristics of a postconventional society, is industrialization coupled with diverse political, racial and ethnic groups, as well as sufficient role-taking opportunities and educational experiences. Although the Kibbutz environment may afford sufficient role-taking opportunities, it is not an industrialized environment, and one may speculate that it contains less diversity in terms of political, social and ethnic groups than is evident in most modern urban settings. If such a speculation is indeed valid, then this places on the agenda the question of why Kibbutz adolescents in a less conducive environment for postconventional reasoning, outperform their counterparts in the United States - an environment which is held to be most conducive to postconventional reasoning. One may venture to suggest that the nature of the political situation, where Israel has been at war for more than three decades, may have impacted on the individual's moral reasoning. This however is merely conjecture, but it does suggest some need for cross-cultural studies to place more precedence on describing the nature of the society.

The Snarey et al. (1984) study also revealed another interesting finding. The study revealed that a number of responses were difficult to score. This difficulty was interpreted as evidence that the scoring manual was incom-

plete. At the outset, while this appears to be supported by Snarey (1985), there is a fundamental distinction between the two views. The Snarey et al. (1984) findings suggest that while the principle of justice is universal to all cultures, there may be additional moral principles at the postconventional level which are not represented in the manual. Snarey (1985) however raises the possibility that the principle of justice may not be central to all cultures, and that one should look for culturally specific moral principles.

Although this aspect of the universality claim is not an issue here, it does have direct bearing on whether or not Kohlberg's stages are (can be) universal to all cultures. For, it is quite possible that the apparent lack of evidence of postconventional reasoning in some societies may be more reflective of an incomplete scoring manual than of a society which does not sustain such reasoning. The existing research provides no apparent solution to this problem, and what is required is further research that will directly investigate whether the absence of postconventional reasoning in some societies is due to: (1) the nature of the society, or (2) that the scoring manual is incomplete or (3) that the principle of justice may not be central to all cultures, or (4) that it may be due to a combination of these factors.

Yet another approach to evaluating this aspect of Kohlberg's universality claims, is to consider differences between subcultures within particular societies. The vast majority of research in this regard, has focussed on social class and sex as the appropriate subcultures.

Since the research evidence pertaining to social class and gender will be discussed later, it shall not be considered here.

3.2.2. Invariant Developmental Sequence

If Kohlberg's stages represent an invariant sequence, then the stage progression must satisfy a number of criteria, two of the more important being: (1) movement through the stages must always be in the exact order that Kohlberg suggests without skipping of stages and without stage regressions, and (2) there should be a positive correlation between age and level of moral reasoning - older individuals should reason at higher levels than younger individuals (Snarey, 1985).

Typically, the research investigating the invariant sequence hypothesis has been cross - sectional or longitudinal in nature, and appears to suggest strong support for this hypothesis, at least with regard to stages 1 to 4.

In a review of all of the cross - sectional studies done, Snarey (1985) concludes that eighty five percent of these

studies provide support for Kohlberg's stages as representing an invariant sequence. Of the studies reviewed which do not provide such support, two studies need to be considered since they also have some bearing on the other aspect of Kohlberg's claims, discussed earlier.

Edwards (1975) conducted a study in Kenya in which she examined the relationship between "societal complexity" and the development of morality. Edward's sample consisted of university students (mean age of 22.2 years), a group of community leaders (mean age of 48 years) and a comparison group of secondary school students drawn from the same communities (mean age of 19,6 years). The interview comprised three standard Kohlbergian moral dilemmas, as well as a fourth dilemma constructed from the local context. Interviews were conducted by university students and were independently scored by two scorers. A Spearman rank - order correlation revealed a high degree of reliability for both the university and community sample.

The Edwards study revealed two significant findings: (1) stage 4 reasoning is more prevalent amongst university subjects than community leaders; and (2) stage 3 reasoning is common amongst community leaders, and this contrasts with the secondary school students who show more stage 2 and mixed stage 2 reasoning.

Given the fact that the community leaders are older than university subjects, if Kohlberg's stages are an invariant sequence, then it would be expected that the older subjects, in this case the community leaders, should reason at higher levels than the younger university students. The contrary findings of this study raises the possibility of stage regression, for the older subjects. However, the higher percentage of stage 2 reasoning amongst secondary school subjects provided some support for an invariant sequence in that these subjects are also the youngest subjects.

Edwards suggests an alternative explanation for these apparent anomalous findings. She suggests two important differences between the university group and the community group which may account for their levels of moral reasoning. Although the university group are younger than the community group, they have had more formal education, "and are oriented much more thoroughly toward professional jobs in the modern sector of the Kenyan economy ..." (ibid., p.516). It is this formal education which is held to be a mediating factor in accounting for the differences in levels of moral reasoning. This would appear to support and be supported by research which points to the role of educational experiences in promoting moral development.

Edwards suggests that the second factor accounting for this

difference is the orientation of the university group to a white collar occupation as opposed to the community group who are more traditional. Why should such a difference in orientation produce such differences in levels of moral reasoning? Consistent with Kohlberg's (1971) social evolutionistic point of view, Edwards suggests that the end point of moral development will be crucially affected by the political and social complexity of a society in which one finds oneself. The greater the complexity, the higher the level of moral development. She suggests that the orientation of university subjects to white collar occupations in the modern economy is an orientation to society which is more complex in its political and social organization than the traditional society in which community leaders operate.

A similar interpretation is put forward by a study conducted by Parikh (1980) in which it was found that mothers' and their 16 year old children were at the same level of moral development. He draws attention to the mother's low level of education as well as their restricted role - taking opportunities in the economy as a possible explanation for their low level of moral development.

A more recent study by Pratt, Golding and Hunter (1983) revealed similar results to the Edwards (1975) and Parikh (1980) study. This study is of particular value in that it

addressed the stage of moral development during the mature life span (i.e., over 60), a factor which has been notably neglected in previous research.

The sample consisted of three age groups: 18-24, 30-50 and 60-75. Subjects were tested on three measures, namely the moral judgement interview to determine level of moral development, the Defining Issues Test to determine stage preferences and a Story Pair Task to evaluate the subjects' moral orientations to a utilitarian or fairness orientation.

The Pratt et al. (1983) study revealed no significant differences between the three groups in terms of level of moral reasoning. It did however reveal a "curvilinear function of increasing and then somewhat decreasing moral judgement scores (for) men... in the mature age group" (p.282). This appears to suggest moral regression, but given that there were no significant differences, one must be cautious in suggesting such a regression. The study also revealed that higher levels of education were associated with higher levels of moral reasoning, and that age produced a greater consistency between preference for and actual production of a particular moral stage.

How are we to interpret the findings of these studies? Do they bring into question the invariant sequence assumption? Three considerations may be germane in this regard. First-

ly, if extent of agreement amongst available research studies is any criterion on which to judge the validity of the invariant sequence hypothesis, then the analysis of the cross - sectional studies suggests that the invariant sequence hypothesis should be accepted.

Secondly, given the fact that the adult age group is that age group which is the end point of development, it is quite probable that the lower levels of moral development (lower than anticipated) in the adult age group is more reflective of a stage in which individuals with different end points of moral development have accumulated, than of stage regression per se (Snarey, 1985).

Thirdly, and finally, cross - sectional studies can never provide conclusive support for or indeed against an invariant sequence hypothesis. For, to provide such evidence, investigators need to follow the development of an individual over time to see whether there is stage skipping, stage regressions and whether development is always to a higher stage. Such a requirement can only be met by a longitudinal analysis. Thus, there is a need to consider the longitudinal evidence to see whether this concurs with the findings of the cross-sectional studies.

The findings of a number of longitudinal studies have revealed stage regressions. In one of the earlier studies

Holstein (1976) examined the moral development sequence of middle class adolescents and adults over a period of three years. This study made use of the latest Issue Scoring Manual (Kohlberg, 1972b). The Holstein study is of some importance in that it represents the first longitudinal attempt to address the invariant sequence assumption.

The Holstein study revealed age trends in moral development consistent with Kohlberg's (1969) earlier data, and which is supported by the majority of latter studies (Snarey, 1985). Overall, the adolescents scored at lower levels of moral development than did the adults. However, the results also suggest significant stage skipping for adolescents as well as adult subjects. Young males tended to move directly from stages 1 or 2 to stage 4. Such stage skipping was not evident amongst young females who tended to move from stage 2 to stage 3. At the postconventional level of moral reasoning more females, both adolescents and adults, skipped stages than did males. Movement was from stage 3 to stage 5. Apart from suggesting possible sex differences in stage movement, these results appear to question the notion that subjects proceed through the stages in the order that Kohlberg predicted. In this regard, Holstein (1976) suggests that while the results question the stage to stage movement assumption, they nevertheless provide some support for a stepwise sequence. Support for a stepwise sequence (at least with regard to

the lower stages; stages 1-4) is provided by the fact that movement was always from one level to another level. Movement was always from the pre - conventional level to the conventional level. Movement of subjects at the post-conventional level was not, however, always to a higher stage within that level. In other words, stage regressions occurred at the postconventional level. Holstein (1976) reports that while there is no evidence of stage regressions at the pre - conventional and conventional levels, 20 percent of the adolescents and 22 percent of the adults showed stage regression at the postconventional level.

Although the Holstein findings appear to be damaging to this aspect of the universality claims, there are a number of limitations of this study which need to be taken into account, many of which Holstein herself has conceded to.

Firstly, the sample in this study was homogeneous, with all the subjects being upper middle - class Caucasians resident in California. While the rationale underlying the choice of such a homogenous sample is clearly to control for possible confounding influences of class, race and culture, it does not facilitate the generalizability of the research findings to the wider population. Secondly, Holstein is not averse to the possibility that her findings of stage skipping in the younger subjects may be more reflective of problems in research design. She suggests the possibility

that the three year interval between testing may be too long, and that the individuals may have already passed through a number of stages before they are retested. Thirdly, and finally, Holstein suggests the possibility that the evidence for stage regression may be more reflective of errors in measurement.

Given the problems with the Holstein study, one needs to regard with extreme caution the apparent contrary evidence to the invariant sequence claims. One needs to look towards studies which are more sound in their method and design, before one can make any conclusive statement regarding the validity or invalidity of the invariant stage sequence hypothesis.

One such study is the Colby et al. (1983) longitudinal study of moral development in U.S. males discussed earlier. This study has a number of attractive methodological and design features which enhances the credibility of its findings. Firstly, the study includes a more heterogeneous sample. Subjects were males from upper class families as well as from middle and lower class families. Subjects were also of diverse religious composition including: Protestants, Catholics and Jews. No specific mention is made of racial division.

Secondly, this study represents an impressive research endeavour, involving a time span duration of twenty years

and testing at three to four year intervals. One would expect that if there are going to be stage regressions and skipping of stages then they should be evident at one or more of these five testing times. This study therefore maximises the chance of witnessing stage regressions or a skipping of stages.

A third attractive feature of this study is that it particularly addresses the anomalies suggested by the Holstein (1976) study as well as of an earlier study by Kohlberg and Kramer (1969), which reported regressions in stages of moral reasoning for sophomores. From the Holstein (1976) study and Kohlberg and Kramer study it was not clearly apparent whether the regressions were in fact "true" regressions or were a result of measurement error. Colby et al. (1983) examined this by including an analysis of the test - retest reliability data.

Fourthly, and finally, the Colby et al. (1983) study scored the interviews according to the new Standard Issue Scoring Manual which is held to be an improvement over the earlier scoring manuals. Moreover, participants were scored on all three forms of the manual, which while unnecessary given the fact that they are held to be "functionally equivalent", nevertheless provides the maximum possibility for testing the validity of the invariant sequence claims.

The Colby et al. (1983) study revealed substantial support

for the invariant sequence hypothesis. There was a clear correlation between age and level of moral development. The majority of ten year olds were scored at stage 1/2 or 2, the majority of late adolescents at stage 3.

In summary, while at times it appears that the research evidence vacillates between total acceptance at the one extreme, to almost total rejection at the other extreme, the invariance sequence assumption is generally well accepted. It is well accepted in terms of the other aspects of Kohlberg's universality claims discussed earlier, an aspect which far fewer theorists appear overzealous in their willingness to embrace. Notwithstanding this broad acceptance of the invariant sequence hypothesis, further research in this area in very different research contexts would be salutary in that it may provide further support for the invariant sequence assumption.

3.3.Social Experience

3.3.1.Interpersonal Parent - Child Relationships

In the analysis to follow, research is presented which looks at child rearing antecedents of moral development. Emphasis is placed on those studies, which have adopted as their starting point, the view that moral development does not simply represent the teaching of values by parents or of their introjection by the child.

The role of the parent in the socialization of the child has attracted much interest in the research literature on morality. Primarily, this research has focussed on the impact of various disciplinary experiences with parents on the moral growth of the child. This research has tended to dichotomize these experiences into two broad categories, namely, power assertive techniques of discipline and psychologically or love oriented techniques. Power assertive techniques are techniques which involve the use of physical punishment and material deprivation (Grusec and Ezrin, 1972). Psychologically oriented techniques are techniques which, "rely on incentives to the mind" (Kessen, cited in Grusec and Ezrin, 1972, p.1273).

The familiar adage of "spare the rod and spoil the child" undercores the often widely held view of the efficacy of punitive parental measures in the socialization of the child. Although some studies conducted in experimental settings (e.g., Cheyne and Walters, 1969; Parke, 1969) have found punishment to be effective in inhibiting unacceptable behaviour, the general concensus, certainly with regard to child rearing studies is that psychologically oriented techniques are more effective. That psychologically oriented techniques are more effective, has been illustrated in a number of studies (e.g., Bandura and Walters, 1959; Hoffman and Saltzstein, 1967; Lavoie, 1973).

While the research findings as regards the effectiveness of psychologically oriented techniques over power assertive techniques are unequivocal, this effectiveness has been found to be contingent upon a number of factors. For instance, age and sex of the child appear to be important mediating factors. Luria (1961) found that the ability of children to control their behaviour increases with age. La Voie (1973) found that psychologically oriented techniques are more effective for females than for males. Who is doing the punishing also appears to be an important factor. Hoffman and Saltzstein (1967) found that the mother's disciplinary actions have more influence on the moral behaviour of the child than do the father's actions. These findings are supported by research on prosocial behaviour (e.g., Bar - Tal, Nadler, and Blechman, 1980). Other factors which are considered to also play a mediating role include the type of psychologically oriented technique used (e.g., Hoffman, 1963) and the significance of particular rules in a child's cognitive structure (Cheyne and Walters, 1969).

That the research has consistently shown psychologically oriented techniques of discipline to be more effective over power assertive techniques in the moralization of the child, does not mean to imply that power assertive techniques have no role to play. Clearly, in reality, parents use a combination of these two techniques and this should

be taken cognisance of. Bronfenbrenner (cited in Hoffman, 1970) has suggested that we should be more concerned with appropriate levels of both techniques, rather than construing the one as good or bad for the moral socialization of the child.

Generally these studies have been largely based on the view that the importance of the parent - child relationship is to be found in the extent to which it facilitates the capacity for internal conscience and guilt, factors which are held to be important indicators of the development of morality. Of greater relevance to this research however are those studies operating from a cognitive viewpoint, in which, the importance of the parent - child relationship is seen to lie in the extent to which the different parental disciplinary techniques are facilitative of role - taking opportunities in the family (Hoffman, 1970). Research has not been extensive in this area.

Two early studies conducted by Holstein (cited in Parikh, 1980) and Shoffeitt (cited in Parikh, 1980) have pointed to the importance of the parent - child relationship in the moral development of the child. Holstein (cited in Parikh, 1980) examined moral judgement levels of middle class 12-13 year old children. A significant relationship between the extent of encouragement by parent's and the child's moral judgement level was found. Parents who were high encourag-

ers (i.e., who included their children in decision making and who seriously considered their opinions) were found to be more likely to have children with advanced moral judgments. The results of this study have been interpreted as supportive of the importance of role - taking opportunities and love - oriented techniques of discipline for the moral development of the child.

Similar results have been reported by the Shoffeit study (cited in Parikh, 1980). This study looked at the relationship between moral judgement and power assertive techniques of discipline, withdrawal of love and induction techniques. Subjects were middle class boys ranging in age from 11 to 16 years. The results revealed a negative correlation between power assertive techniques, love withdrawal and level of moral judgement. The results of this study are particularly interesting in that not only do they suggest that psychologically oriented techniques are more effective in promoting moral development, but indeed that power assertive techniques can have a negative influence on the development of moral judgement.

Although the results of these two studies appear to confirm the results of the studies reported earlier, these two studies were both conducted in America, a culture in which Parikh (1980) argues a democratic relationship between child and parent is the norm. One wonders whether similar

findings would be obtained in cultures which have very different values and ideas. A study conducted by Parikh (1980) has specifically addressed this issue.

Parikh (1980) examined family environmental factors and their relationship to moral judgement levels amongst Indian and American families. The question he posed was, given the existence of a hierarchy of family roles and less opportunities to participate in decision making for Indian children, would their parents' parental practices still have the same impact on moral development as is the case for Western parents. Subjects comprised parents and children from middle socio - economic groups. The children ranged in age from 10 to 16 years. Level of moral development of the children and their parents was measured by Kohlberg's moral dilemmas. Parental practices were measured in two ways. Firstly, a score for the extent of use of psychologically oriented techniques of discipline (induction) was obtained from an, "adaptation of the child rearing practice scale developed by Hoffman and Saltzstein..." (Parikh, 1980, P. 1032). Parents were classified as belonging to either a high induction group or a low induction group. Secondly, a score for the "extent of encouragement" given by parents to their children was obtained by allowing parents and children to participate in the discussion of moral dilemmas.

The results of the study revealed a positive relationship between the amount of induction used by the parent and the child's level of moral judgement. This relationship, however, applied only to the mother's use of induction and not the fathers. Moreover, the effectiveness of induction in promoting moral development appeared to be contingent upon the age of the child. The relationship between high induction and children of high moral judgement was significant for the 15-16 year old children, but not for the children of 12 and 13 years of age. The results also revealed that there was a relationship between parents' level of moral development and their extent of encouragement. Parents who used high encouragement were all at or above the conventional stage of moral reasoning. Age of the child was again an important mediating factor. It was found that parents who were classified as high encouragers or who were at the conventional stage of moral reasoning used more high encouragement with 16 year olds than with 13 year olds.

The findings of this study are consistent with findings of the American studies reported earlier, aside from three important differences. Unlike the American studies, in this study the relationship between parental practices and moral development was significant only for the older age group. Moreover, American parents used more encouragement than Indian parents. Finally, for Indian children the

father's use of psychologically oriented techniques of discipline did not appear to be an important influence on their moral development, as was the case for the American children.

An important question to consider is what is it about parent's parental practices that is facilitative or inhibitory of the development of moral judgement. Clearly it cannot be the values and ideals of the parents, for this cannot explain how parental practices in different cultures with very different values and ideals produce similar effects on the moral judgement of the child. Consistent with the cognitive viewpoint, Parikh (1980) suggests that it is what these parental practices mean for the child which is important, and this meaning is the same for Indian and American cultures. Psychologically oriented techniques of discipline as a method of rearing children means for the child that the parents are nonauthoritarian, and that the child's views are taken more into account and he/she is therefore provided with more role - taking opportunities. This scenario is most conducive to cognitive reorganizations by the child - a factor necessary for moral development.

Although the Parikh study provides support for the effectiveness of psychologically oriented techniques in the moral development of children, in different cultures it appears that this effectiveness is contingent upon the age of the

child and who is doing the disciplining. Parikh suggests that the failure to find a significant relationship between parental practices and moral judgement for the younger age group in India may be explained by the fact that Indian families are less democratic than American families. Given that this is the case, then it would be expected that the opportunities for role - taking for the younger age group would very be small, and thus the differences between the various parental practices (differences in terms of their provision of role - taking opportunities) are likely to be small, thereby accounting for the failure to find a significant relationship between different parental practices and level of moral judgement of younger children. That the father's use of induction was found to be unrelated to their children's level of moral judgement in India can be explained by the fact that most of the mothers were housewives and spent much of their time at home while all of the fathers were working professionals. Under these circumstances the children had more opportunities of learning from their mothers than their fathers.

Given the consistent findings in the literature of a positive relationship between psychologically oriented disciplinary techniques and higher levels of moral development, coupled with the suggestion that the importance of this disciplinary encounter may lie in the extent to which it is facilitative of role - taking opportunities, it may be more

elucidating (certainly from a cognitive viewpoint) to focus not on the parent - child relationship per se but rather on role - taking opportunities in the family and its relationship to levels of moral development.

3.3.2. Social Participation

In the earlier analysis the importance of participation in the family in terms of role - taking opportunities as an influence on moral development was pointed out. The family, however, and the role - taking opportunities which it provides is only one possible experiential influence on moral reasoning. As the child develops and his or her horizons expand, it is likely that other groups and institutions become salient as influences on moral reasoning. In this regard, a number of studies have examined the influence of peer group participation and broader social participation (e.g., in secondary institutions) on moral reasoning.

In one of the earlier studies Keasey (1971) examined the influence of social participation on the development of morality in preadolescents. The study was conducted in America and comprised approximately 70 males and 70 females who were mostly white and who came from lower class homes. Moral reasoning was measured by Kohlberg's (1958) Moral Judgement Interview. Two indices for social participation

were obtained, namely, the number of clubs and organizations which the subjects had been members of for the two years, and the number of leadership positions held. This information was substantiated by asking peers and teachers to independently rate every child in terms of leadership positions.

The results revealed a strong relationship between social participation as measured by club membership and leadership positions with levels of moral development. This relationship was found to be valid whether rated by peers, teachers or by the subjects themselves. Those subjects who were rated more highly on social participation were at higher levels of moral development. Furthermore, this study suggested that children who occupied central peer group positions as indicated by "popularity and/or leadership" were at higher levels of moral development than children who did not occupy these positions.

Although this study is important in so much as it sheds some light on the possible influence of social participation in the peer group on moral development, the age range of subjects in this study was very limited. Given the disparate findings for different age groups in terms of role - taking opportunities in the family, and their influence on moral reasoning as discussed earlier, this necessarily raises the question whether such age disparities

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would also be evidenced when considering social participation in the peer group. One study which provides some answer to this question is a more recent study conducted by Colby, Kohlberg, Gibbs and Lieberman (1983).

This study was a longitudinal study which looked at the moral development of males in America. Among other things, this study investigated the impact of "sociometric status" (which is an index of participation in the peer group) on level of moral development and on moral type. This study comprised a broader age range of subjects. Subjects were between the age of 10 and 16 years. The procedure in this study was much the same as the procedure used in the Keasey study.

The results of this study supported the findings of the Keasey study. Those boys who had greater peer group involvement, social interaction and who were more popular ("social integrates") had higher levels of moral development than boys with less social interaction and who were less popular ("social isolates"). "Social isolates" at age 10 showed more stage one reasoning than "social integrates." Integrates showed more stage three reasoning than isolates. Age appeared to be an important intervening variable in that this study found that beyond the age of 13 the differences between the two groups were minimal. The impact of sociometric status appeared to be restricted to

the movement to stage 3 reasoning. The results also revealed, a general tendency for "sociometric integrates" to be type B more often than "sociometric isolates." As was the case with level of moral development, this tendency however declined with age, although there was still a trend in young adulthood. From the results of these two studies there appears to be concurrence that social participation in the peer group facilitates the development of morality and of autonomous moral reasoning, albeit largely for younger children and for lower stage transitions. Furthermore, there is agreement that it is role - taking opportunities and the associated cognitive disequilibrium that are the mechanisms underlying social participation in the peer group which are responsible for moral reasoning and development. What is not clear however, is why social participation in the peer group appears not to be a significant factor accounting for moral reasoning and development in older children. In this regard, there is a notable lack of research, which is perhaps reflective of a bias in the literature towards focussing on the moral reasoning of younger children. It may be suggested that for older children, values and norms of other social institutions and participation in these other institutions may be more important influences on moral reasoning. There is some evidence to suggest that this is indeed the case. For example, Snarey, Reimer and Kohlberg (1984) have found,

that 15-17 year olds were more likely to make moral judgements indicative of the norms of their society than were younger children. Older children in making their moral judgements referred to values of social institutions such as the family, the legal system and religious group.

A study conducted by Haan, Smith and Block (1968) provides further affirmation of the increased importance of other institutions and participation in these institutions for the development of moral reasoning for older children. In this study the moral reasoning of university students and volunteers in the Peace Corps was examined in relation to, among other things, social - political behaviour and family background.

The results of this study revealed that those students who reasoned at the principled level (stage 5 and upwards) were those students who belonged to the most organizations, had extensive involvement in these organizations and placed great emphasis on political protest. In contrast, students who reasoned at the conventional level, belonged to less organizations and did not challenge the status quo. Moreover, students who reasoned at the principled level were more likely to have conflicting relationships with their parents, to hold views different from their parents, than students reasoning at the conventional level. This latter finding is significant in that it would appear to

suggest that the nature of the family environment continues to play a seminal role in the development of morality for older children.

Social participation also appears to be an important influence on the development of morality in adults. This has been demonstrated in a study conducted by Harkness, Edwards and Super (1981) in a rural community. This study is of particular interest in that, not only was it conducted in a non - western rural environment, but also it addressed the often widely held criticism of Kohlberg's theory, namely that it has nothing to do with reality. Subjects comprised a group of leaders and non - leaders of a rural community in Western Kenya. The subjects ranged in age from 28 to 74 years and both groups were matched in terms of age, religion, wealth and education. Moral reasoning was measured by Kohlberg's moral judgement interview. The leadership group were those subjects who were the most respected in the community, who assisted to settle disputes and who often held positions of authority (Harkness et al., 1981).

The results of this study revealed that the group of moral leaders were at higher levels of moral development than the group of non - leaders. The group of leaders reasoned at stages three and four while the group of non - leaders reasoned at stages one and two. Harkness et al. (1981) suggest that the reason why leaders reasoned at higher

levels than non - leaders is due to, "their role as moral spokesmen for the community" (p.601). To be effective in the settlement of disputes, leaders must think beyond the consequences for themselves, to the consequences for society. This necessarily involves being able to take the role of the other person, thinking in terms of what one should do and not what one would like to do. Thus, being a leader in this community with its associated social roles provides and indeed necessitates greater role - taking, and it is this which is responsible for the leaders' higher levels of moral reasoning. Clearly, moral reasoning in this study has much to do with social reality. It is expected of leaders that they should resolve disputes in such a way so as to maintain harmony and balance in the community. Therefore, leaders must adapt their moral reasoning to the dictates of their social roles in their community (ibid.).

The Harkness et al. (1981) study not only provides results which are consistent with the results of other studies discussed thus far, in terms of the importance of social participation for the development of moral reasoning, but it also shares with these studies one major drawback. Without exception all these studies have tended to focus on one or at best two areas of social participation. While these studies are informative, it may be suggested that greater insight into the importance of social participation on the level of moral reasoning may be facilitated by

a broadening of the analysis to consider not only the relative importance of all areas of social participation, but also the relative importance of other social experiences within a single analyses. A study undertaken by Walker (1986) represents an attempt at such an analysis.

Walker (1986) examined, among other things, the influence of various experiential factors on the development of morality in adults. The sample comprised 38 women and 24 men who ranged in age from 23 to 84 years. All subjects were non-faculty employees at the University of British Columbia. Moral reasoning was assessed by means of Kohlberg's moral dilemmas. Participants completed a social experiences questionnaire which contained questions relating to decision making in the family, participation in various groups or activities, occupation and level of education.

Using a regression analysis with WAS as the dependent variable and the various social experiences as the predictor variables, the results revealed that education explained 43 percent of the variance, while participation in the family in terms of decision making accounted for eight percent of the variance. None of the other variables were significant predictors.

Although the Walker study does not provide strong support for social participation as a factor in the development of

moral reasoning, it does suggest that participation in the family in terms of joint decision making may be a catalyst for moral growth. As for the reason why this should be the case, Walker (1986) maintains that, "joint decision - making allows consideration of other's perspectives and resolution of conflict" (p.123). The finding of the importance of education in predicting moral development is significant in that it would appear to be consistent with other research findings (for a review of this research see section 3.3.4. of this chapter).

A particularly attractive feature of the Walker study is that it takes some cognisance of the possibility which has hitherto largely been ignored, namely, that the impact of social experiences may be evidenced not only in terms of levels of moral reasoning, but also on orientations when making moral judgements. In this regard, Walker (1986) examined whether there were sex differences in orientations. Although he found no significant differences, this does not detract from the need and indeed the value of broadening ones' view of the possible impact of experiential factors on moral reasoning.

In summary, the studies reviewed in this section appear to suggest some support for the importance of social participation - whether it be in the peer group, the family or other social institutions, on moral reasoning. This impor-

tance however appears to be a function of the individual's age. For younger children participation in the peer group appears to be important, whereas for older children and adults it is participation in the family and broader social institutions which appears to be significant. It was suggested that a clearer understanding of the role of social participation as an experiential variable in moral reasoning, may be better facilitated by a consideration of all areas of social participation in conjunction with other experiential influences. It was also suggested that one needs to be sensitive to the possibility that the impact of social experience may not only be seen in terms of level of moral development, but also in terms of orientations used when making moral judgements. Although Walker's study represents a step in this direction, his study was restricted to adults. Further research using children across a broad age range, would be salutary in highlighting the relative importance of various social experiences including all areas of social participation for the development of moral reasoning.

3.3.3.Social class and gender

3.3.3.1.Social Class

In the following discussion, research is presented which focuses on socio - economic status. Particular emphasis

is placed on those studies which have looked at what it means to be of a certain socio - economic status (i.e., in terms of one's social experience), and its relationship to moral reasoning.

Socio - economic status as an important influence on moral development is well documented in the existing literature, and appears to be well supported. For instance, an early study by Harrower (cited in Boehm and Naas, 1962) of children's attitudes towards punishment, revealed that children of lower social class and middle class children differed in their value orientations. Children from the low social class grouping at an early age preferred "retributive" punishment and at a later age preferred "reciprocal" punishment. Middle class children on the other hand demonstrated a preference for reciprocal punishment at all ages.

Somewhat contradictory findings have however been reported by Boehm and Naas (1962); Boehm (1962 a) and Boehm (1962 b). Boehm and Naas (1962) investigated the impact of social class on moral judgements. Their sample comprised 102 children between the ages of six to twelve. Subjects were drawn from lower class and middle class populations. Classification by class was based on parental occupation. All subjects were of average intelligence. Subjects were tested on four stories, two of

which were the Piagetian "Cup Story" and "Lost Story" and the remaining two were the "Fight Story" and "Scout Story" devised by Boehm.

Using chi - square statistical analyses the study revealed no significant differences between the two social classes in their attitudes towards "lying", "agression", and "authority". One possible reason for the contradictory findings of this study, and indeed which is intimated to by the authors themselves, is to be found in their choice of sample. Their lower class group was drawn from a mixed neighbourhood where they were subject to middle class influences. It is quite conceivable that these middle class influences may have impacted on their moral judgements. In this regard the use of a more extreme sample, including lower class subjects from environments in which there is little "social mixing" with middle classes, may be more appropriate to test the impact of social class on moral judgements.

In a study of similar design to the Boehm and Naas (1962) study Boehm (1962 a) investigated the impact of intelligence and socio - economic levels on conscience development in children. Subjects were drawn from public schools as well as Catholic and Jewish "parochial" schools. Subjects were tested on the same four stories as in the Boehm and Naas study, and division into social

class was on the basis of "Warner's norms." Although this study revealed that upper class subjects are more preoccupied with intentions rather than consequences at a younger age than working class subjects, working class subjects appeared to show earlier independence of authority, and earlier growth of reciprocity. Boehm's (1962 a) apparent contradictory findings are further ratified in yet another study by Boehm (1962 b) in which he reported that working class children score higher in terms of independence of adults and peer reciprocity.

The Boehm (1962 a, 1962 b) studies need to be interpreted with some scepticism given the fact that the more contemporary studies in this area (e.g., Pearlin and Kohn, 1966; Enright, Enright, Manheim and Harris, 1980) have, with virtually no exception, all reported significant class differences in moral judgement favouring the upper social class. On the whole then it would appear that the existing research findings are weighted in favour of social class differences in moral judgement, and these differences favour the upper social class.

Aronfreed (1969) has pointed to the relationship between parental disciplinary practices and social class. He suggests that parents of higher socio - economic status are more likely to utilize inductive techniques of discipline with their children, while parents of lower socio -

economic status are more likely to discipline their children using power assertive techniques. The use of inductive techniques are held to be more facilitative of the development of an internal focus in morality. Power assertive techniques on the other hand are facilitative of an external orientation in moral judgements, in which there is an emphasis on conformity and obedience to external authority. This explanation is concordant with some findings and explanations of earlier research (e.g., Bronfenbrenner, 1958; Kohn, 1963)

While this explanation appears to have found support in some quarters, it still begs the question of why the different social classes should show a disparity in their types of parental practices. Kohn (1963) has pointed to the different life experiences of the social classes and the different values that these experiences generate, as a possible explanation. In particular, Kohn points to the characteristically different occupational experiences that the social classes have, in influencing parental values and disciplinary techniques. Parents from low social classes usually have working class occupations, and these occupations do not encourage self direction but rather the obedience of rules and instructions without question (ibid.). It is suggested that this experience of conformity and obedience of rules without question is transmitted by the parent to the child, and the technique

used to transmit these values are consistent with the parents' "do as you are told" experience in the workplace, namely power - assertive techniques. Under these circumstances it is not surprising that children of lower socioeconomic status should be lower in their moral judgements since their orientations in making such judgements are most likely to be towards external prohibitions. That this is indeed the case is demonstrated in the Colby et al. (1983) study discussed earlier which found that few working class subjects reached postconventional levels of moral reasoning.

Middle class parents hold occupations which encourage self direction and autonomy. The ethos under these circumstances is one of a belief in the capability of the individual to make the right choices. Thus, the middle class parent presents the child with values reflecting autonomy and reasoning.

Although this explanation by Kohn for social class differences is helpful in that it provides some understanding of the mechanisms associated with and underlying class differences in moral judgements, some research has suggested that these differences between social classes in moral reasoning may be reflective of differences in levels of education (e.g., Wright and Wright, 1976). Clearly there is a relationship between education and

social class, in that parents from higher social classes are more likely to be able to afford post school education for their children and they themselves are likely to be highly educated. Given the consistent findings in the literature of a positive relationship between level of education and moral reasoning (see section 3.3.4 for a review of this literature), this suggests that one needs to be fastidious when making claims as to the relationship between social class and moral reasoning. Notwithstanding this criticism of the Kohn explanation, there appears to be support for this explanation (e.g., Pearlin and Kohn, 1966).

A second possible explanation for social class differences in moral reasoning, and indeed which is more pertinent to this study has been suggested by Kohlberg (1969). Kohlberg (1969) suggested that the reason why working - class children are lower in their moral reasoning than middle class children, is that they do not have the role - taking opportunities to participate in society, which are typical of the middle class social experience. This, according to Colby et al. (1983) does not allow the working class children to experience, "being integral participants in the society and thus to develop the social system perspective that characterizes stage 4" (p.113).

Which explanation one accepts will ultimately be a function of how one defines morality. If it is accepted that moral development represents a taking in of the values of the parents', then the Kohn explanation may be most attractive. If on the other hand one accepts the existence of universal moral principals, independent of cultural influences, then Kohlberg's explanation for the social class differences will be more appealing. Whatever explanation one accepts, one thing appears to be certain from the literature and that is that socio-economic status is an important influence on level of moral reasoning, and as such must necessarily be included in any analysis which looks at the relationship between social experience and moral reasoning. What is less certain from the literature is the relationship between socio-economic status and moral type. Given Kohlberg (1969) and Kohn's (1963) explanation concerning the impact of social class on moral reasoning, it would be anticipated that such an impact would also be evidenced in moral type. The existing research however does not provide strong support for this. For instance, Colby et al. (1983) in their American longitudinal study, which looked at the relationship between socio-economic status and moral type found no significant relationship for adolescents (age 16-17) and young adults (age 24-26). As to why this was the case, it is not clearly

apparent from this study, and further research is needed that will investigate not only the relationship between socio - economic status and moral type, but also the link between level of moral reasoning, moral type and socio - economic status.

3.3.3.2. Gender

Research examining sex differences on Kohlberg's theory of moral development has been copious. This research is of some importance in that not only does it have implications for Kohlberg's universality claims, but indeed any accusation of sex bias is a serious charge against a theory of morality (Walker, 1984).

There are two principle issues when considering sex differences in moral reasoning. Firstly, it may be suggested that there are fundamental differences between males and females in their moral development, and that females are "naturally" less morally developed than males. Such a suggestion is typical of Freud's view that females are less morally developed than males because of their weaker parental identification with the same sex parent. Such a suggestion is generally not supported. Second, it may be suggested that the manner in which one defines morality and attempts to measure it may be biased towards one sex, and therefore falsely

creates the appearance of real differences in moral reasoning (Walker, 1984). It is this latter suggestion which has been leveled against Kohlberg's theory, and which has dominated the research studies examining sex differences in moral reasoning on Kohlberg's theory.

Perhaps the most vocal critic of Kohlberg's stage theory is Gillian (1982). She suggests that his theory is sex biased in that it is not sensitive to particularly female concerns such as, for example, caring, responsibility, and welfare and therefore reduces female moral thoughts to lower stages (Walker, 1984). If Gillian's (1982) argument is indeed correct, one would expect there to be significant differences between the sexes in terms of level of moral development on Kohlberg's stages. A number of early studies have reported such differences.

For instance, in the study conducted by Parikh (1980) on the relationship between environmental factors and the development of moral judgement in Indian families, there were significant differences in level of moral judgement between fathers and mothers. The participants consisted of eighth and tenth grade children as well as their parents. All participants were upper middle class and were either "Jains" or "Hindus". Subjects were individually tested on four standard Kohlbergian dilemmas, modified to suit Indian society. Following this, was a

group discussion in which the family members were brought together and were asked to reach consensus on some of the issues they appeared to initially disagree on. In a second meeting each individual in the family was asked to complete a child - rearing questionnaire.

His results revealed (amongst other things) that the mothers of the children were significantly lower in their level of moral reasoning. "The mean moral maturity score for the mothers was 279, for the fathers 326..." (ibid., p.1034). Moreover, more mothers than fathers were found at the preconventional stage, and few mothers reasoned beyond stage 3.

Similar sex differences favouring males have been reported in working class female and male students in England (Simpson and Graham, cited in Snarey, 1985) as well as in radical and non - radical male and female students in Germany (Gielen, cited in Snarey, 1985).

While at the outset the results of these studies appear to suggest that Kohlberg's stages are sex biased, or that females score lower on his stages there are a number of problems with these studies which mitigates against such a conclusion. Snarey (1985) points out that in the Gielen study no overall significant sex differences were found. Rather what was suggested was that females are more likely than males to score at stage 3. This however

does not preclude the possibility that they may score at higher levels of moral reasoning. Moreover, this study as well as the Parikh (1980) study utilized the "borderline scoring manual" (Kohlberg, 1972b), and given the fact that this manual has been replaced, one needs to interpret with some caution the results. This is particularly true for the Parikh (1980) study, because as Snarey (1985) suggests, two subsequent studies by Vasudev, and Gielen and Kelly (cited in Snarey, 1985) conducted in India utilizing the more reliable scoring manual revealed no significant sex differences. The Simpson and Graham study (cited in Snarey, 1985) is also criticized for its use of a "cautionary scoring manual" (Snarey, 1985, p.218).

The Parikh (1980) study is further problematic in that it appears to have confounded sex and occupation. For, all of the fathers in the Parikh study were self employed and had opportunities for wider societal interaction. In contrast, all of the mothers (apart from four) were housewives and had no previous work experience, and thus had very limited opportunities for wider social participation. Given the significance of social participation as a factor promoting moral development, it may be argued that the differences found in this study between the sexes are more reflective of a difference in opportuni-

ties for social participation. In this regard it is interesting to note that the four mothers who obtained scores above stage three were those that were presently working or had worked in the past, that is, mothers who had greater opportunities for wider societal participation.

Given the fact that all of the above studies have used a less reliable scoring system, more conclusive evidence would be forthcoming from studies which have utilized the new issue scoring manual (Colby et al., 1987b). A number of studies have been conducted in this regard.

For instance, a more recent study conducted by Walker (1986) revealed no significant differences in moral development between males and females. All the participants reasoned at stages three and four. These findings would appear to suggest that the stages are equally applicable to females as they are to males. Of particular interest in the Walker study was the finding that males and females did not differ significantly in their types of moral orientations. This appears to contradict Gilligan's (1982) argument that women would be more concerned than men, with utilitarianism and perfectionism when justifying moral choices. These findings of the Walker (1986) study are consistent with Pratt, Golding and Hunter's (1983) failure to find sex differences for the utilitarian and fairness orientation.

From the review of the studies thus far, it would appear that the claim that Kohlberg's stages are sex biased are unfounded, and that studies which have reported sex differences have been largely a result of confounding sex and occupation and/or an artefact of measurement techniques. Perhaps the most convincing evidence that Kohlberg's stages are not sex biased, is provided by Walker (1984). Walker has reviewed all of the studies which have examined sex differences in moral reasoning from childhood to adulthood. Looking firstly at the studies using children, Walker reports that of the 31 studies which involved nearly 3 000 subjects, only five studies revealed significant sex differences, and these differences favoured females, although these differences were small. Secondly, on the 35 studies involving nearly 4000 adolescents and young adults, Walker reports that sex differences were rare. Where sex differences were found, these differences were small, less than half a stage, and favoured males. Similarly in the studies which looked at sex differences in adulthood, few studies reported significant sex differences. Where sex differences did appear they tended to be small and were often a result of confounding with other variables such as education and occupation (Walker, 1984). These latter findings are of particular significance in that they would appear to question Gilligan's (1977) contention that sex differ-

ences are more likely to be seen in the conventional and postconventional stages, that is, stages which adults are likely to be at.

In summary, from this somewhat cursory review of the research on sex differences in moral reasoning, it would appear that there is strong support for the view that Kohlberg's stages are not sex biased. Given that this is the case, in the present study gender differences in moral reasoning will not be considered. However, although gender differences will not be considered in the present study, it is recognized that the issue of gender differences in moral reasoning is an issue worthy of further investigation. Gilligan (1977) has provided an alternative explanation for the development of morality in women, and future researchers might consider looking at the stage development of morality in women using Gilligan's stages, and indeed comparing such development with their development on Kohlberg's stages. Such research would be important in that it may provide further clarification on the issue of gender differences in moral reasoning.

3.3.4. Educational Experiences

Given the fact that individuals spend a great deal of time in various educational institutions, and that these educa-

tional institutions are important socialization agents, it is anticipated that educational experiences would have some impact on moral development and moral behaviour. Such an anticipation is borne out by the available research evidence which has primarily focussed on level of education, as the factor in the educational experience responsible for moral development.

A study conducted by Fontana and Noel (1973) investigated moral reasoning in an American university. Their sample was drawn from students, faculty, and administrators. Moral reasoning was assessed by means of Kohlberg's moral dilemmas. It was assumed that faculty members should reason at the highest level (stage 5\6) because of their higher education and because they have reached the mature stage of their life. Students were expected to reason at a lower stage because of their lower education. Administrators were expected to reason at stage 4 because of their role in ensuring the smooth operation of the university, and this was found to be the case. However, contrary to the authors expectations, the results also revealed no significant differences in the amount of stage 5 and stage 6 thinking amongst faculty and students - a finding which appears to question the notion that number of years of education affects moral reasoning. Interestingly, the results revealed significant differences in the use of stage 4 and stage 5 reasoning amongst individuals in the

natural sciences compared to individuals in the humanities and social sciences. Individuals in the humanities and social sciences were found to use significantly more stage 5 reasoning as compared to individuals in the natural sciences whose dominant stage was stage 4. This appears to raise the possibility that it may be the content of the educational experience and not the number of years, which is the important variable influencing moral reasoning.

A study conducted by Dortzbach (cited in Rest, Davison and Robbins, 1978) of adults between the ages of 25 - 74, has looked at the relationship between age and education on moral reasoning. Dortzbach randomly selected individuals from a voters roll, and his results revealed that with an increase in level of education there is a corresponding increase in level of moral reasoning. For example, he found that individuals with two or more years of college experience had average percentage scores of 37.4. However graduates had average percentage scores of 47.3. When subjects were grouped by age, moral judgement level decreased. Dortzbach interprets these results as evidence of a greater correlation between moral judgement and education than between moral judgement and age.

Given these positive findings of the research using adult samples, Rest (cited in Rest, Davison and Robbins, 1978) concludes that, "adults in general do not show much advance

beyond that accounted for by their level of education" (p.268). Moreover, he suggests that if one were to group together adults in terms of their highest educational level and compare them with students who are at the same level of education, then there is little difference between the two groups in terms of their level of moral judgement.

McGeorge (1976) has conducted a longitudinal study in which he examined some of the correlates of principled moral judgements among students at teachers college. First year students were required to complete the D.I.T. (Defining issue test) and were then retested two years later. "The DIT is an objectively scored measure of cognitive moral development which poses six moral dilemmas, three of them from Kohlberg's original interview" (McGeorge, 1976, p.267). They were also required to complete a questionnaire relating to personal interests and social activities. It was anticipated that due to a variety of "real life" experiences including educational experiences, that the subjects' scores in their third year at college should be significantly higher than their scores when they were in their first year at college. Contrary to expectations, the results revealed no significant changes in mean scores between first year and third year at college. McGeorge's explanation for these contrary findings is that the sample consisted largely of women, and that there is some evidence (e.g., Kohlberg and Kramer, 1969) to suggest that

women are less likely to settle at the postconventional level of moral reasoning.

Given the limited nature of the sample in this study coupled with the lack of a control group necessarily precludes making substantial statements as to the role of education in promoting moral reasoning. Moreover, Rest, Davison and Robbins (1978) have questioned McGeorge's (1976) conclusions, in that they suggest that, given the slower development of morality in adulthood, the two year time span between first and second testing may be too short to reveal whether development has occurred.

While the McGeorge (1976) study does have problems, this does not detract from the fact that it is a study with utilitarian value. It is believed that the value of this study is two fold. Firstly, bearing in mind that the aim of this study was not to assess the correlation between educational level and principled moral thinking per se, but rather to assess the correlation between broader life experiences (of which education is a part) and principled moral thinking, this study does provide some useful insight into the types of experience that may be effective in promoting moral reasoning. For instance, Youthline (which is a telephone counselling service) appeared to be a more morally stimulating experience than other social or sporting activities such as SPCA, Girl Guides or Scouts.

Secondly, this study does help to bring to greater awareness the often profound difficulty in isolating the effects of education from the effects of other social experiences, and indeed from the effects of ontogenetic development on level of moral reasoning.

A notable weakness in the studies discussed thus far is their general reticence and/or failure to directly address the issue of why level of education may be an important stimulus to higher levels of moral reasoning in the first place. While this is understandable given the complexity and difficulty associated with identifying specific mechanisms in the educational experience that lead to change, this neglect necessarily impedes on a clearer understanding of what it is about educational experience that leads to change. Although some studies do make some reference to the mechanisms underlying change (e.g., Walker, 1986, suggested that higher education may lead to change because it stimulates a consideration of broader social, political and moral issues) this is usually in the form of an assumption, and no recourse is made to other possible interpretations.

In this regard, perhaps one of the better designed studies, and a study which directly confronts the various interpretations of why the educational experience is a factor in promoting moral reasoning, is a study by Rest and Thoma

(1985). Their study was part of an ongoing longitudinal study examining the relation of moral judgement development to formal education. Subjects were initially tested on the D.I.T. while still in high school and were thereafter tested at two yearly intervals. All the subjects were from middle class homes. After completing high school, subjects embarked on different career trajectories and subjects were divided into a high education group and a low education group. A high education group was that group who had three or four years of college education. The low education group comprised those subjects who had no college experience, only a few months experience or up to two years experience. Their results revealed that the high education group showed increasing gains in their scores, while the low education group showed a levelling off in their scores. Multiple regression analysis showed that years in college significantly add to the predictability of moral judgement scores in young adulthood over and above the variance accounted for by high school scores. Education was found to add fourteen percent to the accountable variance.

Rest and Thoma suggest a number of possible explanations for the effectiveness of education in promoting moral judgement. First, they suggest that in the college there is a "general socio - moral perspective." Thus the higher education group may have a higher level of moral reasoning

because they have had greater time to assimilate into their thinking this perspective. Rest and Thoma believe that the validity of this explanation is necessarily dependent on showing that such a perspective does in fact exist in a college environment, and being able to demonstrate how students come to attain such a perspective. Unfortunately research in this regard is lacking.

A second explanation is that the college environment promotes intellectual development in all areas, including moral thinking. Rest and Thoma suggest that this explanation is necessarily predicated on the assumption that there is a positive correlation between intellectual stimulation and reflection on social experience. They suggest that further research however is necessary to test the validity of this assumption, before one can accept this explanation as conclusive.

A third explanation is that the gains of high education groups in level of moral reasoning is attributable to the characteristics of the people who undergo tertiary education. Rest and Thoma (1985) suggest that people who undergo tertiary education are people who seek intellectual stimulation, enjoy working on complex problems and want to develop their cognitive capabilities. If this is indeed a valid explanation then it must be demonstrated that education is a prerequisite for moral advancement. Rest and

Thoma (1985) however suggest that research in this regard has not been decisive and is equivocal.

From Rest and Thoma's (1985) discussion of the possible reasons for the efficacy of education in promoting moral reasoning, it is clearly apparent that substantial strides need to be made in this area before one can gain a clear understanding of what the mechanisms are, in formal education, that lead to change in moral reasoning. Furthermore, it is anticipated that given the numerous factors impacting on level of moral reasoning many of which are interrelated with educational experiences that these research strides will not and cannot reveal simple cause effect relationships. Notwithstanding the need for further research in this area, it appears that the notion of a positive relationship between educational level and moral development is generally well supported by the available research evidence.

3.4.Conclusion

This chapter has reviewed some of the available literature concerning the relationship between social experience and moral reasoning. Studies suggest a number of social experiential influences on moral reasoning including: relationship with parents and type of home environment, peer group participation, participation in broader social institutions, expe-

riences from one's socio - economic grouping and level of education. While much has been learnt from these studies, these studies have tended to be limited in terms of the number of experiential influences which they have considered. While this is understandable given the complexities associated with measuring social experiences, it does not facilitate a clearer understanding of the relative importance of social experiences, and indeed of particular social experiences, in influencing moral reasoning. What is called for is a broader focus that will attempt to incorporate a wider number of social experiential variables, so as to enhance the understanding of the relationship between social experience and moral reasoning.

Studies examining two aspects of Kohlberg's universality claims, namely that his stages of moral development are evident in all types of cultures, and that there is a positive correlation between age and level of moral development, were also examined. The research appears to suggest both support for, and against these universality claims. Further research in different cultural contexts may prove useful in providing some answer to the apparent contradictory findings relating to these two aspects of Kohlberg's universality claims.

3.5.Aims of the present study

The aim of this study is to examine the relationship between

social experience and moral reasoning, and to provide a test of aspects of Kohlberg's universality claims. In this regard the following issues will be examined:

Level of Moral Development

1. whether blacks and whites differ in their level of moral development.
2. whether there are differences among the age groups in their level of moral development.
3. whether there is a positive relationship between age and level of moral development.
4. whether the full range of moral stages (i.e., stages one to five) are present in this sample.

Moral issues

5. whether blacks and whites differ in their level of moral development on the six moral issues.
6. whether there are differences among the age groups in their level of moral development on the six moral issues.

Moral Orientations

7. whether blacks and whites differ in their types of moral orientations used.
8. whether the age groups differ in the types of moral orientations used.

Moral Type

9. whether blacks and whites differ in their moral type.
10. whether the age groups differ in their moral type.

Social Experiences

11. whether blacks and whites differ in their social experiences.

The Relationship Between Social Experience and Moral

Reasoning

12. whether there is a relationship between social experiences and moral reasoning.
13. whether some social experiences are more important predictors of moral reasoning than others.

In the following chapter, the design of the study is outlined. It consists of a description of the sample as well as a description of the instruments and methods used in this study.

CHAPTER 4

METHOD

This chapter consists of a discussion of the research design. It describes the sample, instruments used and method of data collection. It also comprises a description of the procedure used for extracting data from the social experience measures.

4.1. The Sample

The participants comprised a total of 81 subjects (41 whites; 40 blacks¹) selected from in and around the city of Durban. Subjects were drawn from four age groups: 10-12 (mean 11.05 years), 13-15 (mean 13.9 years), 16-18 (mean 16.95 years), 19-28 (mean 20.25 years). There were ten whites and ten blacks each in three of the age groups. The 10-12 age group consisted of eleven whites and ten blacks. Participants in the first three age groups were all school going children, aside for two 18 year old subjects who were studying at university. All subjects in the 19-28 age group (aside from two subjects who were in matric) were either studying at a university or at a technicon. There were 34 males and 47 females in this study. In an effort to control for the possible influences of different levels of cognitive development, as well as due to the unavailability of IQ records in

1. blacks as used here, refers to Africans.

black government schools, the majority of school going subjects (N=50) were selected from various private schools. The assumption in this regard was that because private schools have academic entrance requirements all pupils attending private schools would be of average or above average intelligence. This was confirmed by discussion with the teachers and principals. None of the pupils (both black or white) at private schools were sponsored. It should be noted, however, that the number of black scholars in private schools was limited. Consequently, it was necessary to select some black subjects from government schools. Nine subjects were selected from government schools, four in the 10-12 age group and five in the 13-15 age group. Academic reports of these subjects were examined, and only those who had good academic achievements (within top 10 of their class) were selected. Subjects in the 19-28 age group having been through the points system operating at technicons and universities, were assumed to be of at least average intelligence. None of these subjects had attended private schools. All of the subjects resided with their parent(s). The sex of the subjects was not taken into account, as race and age constituted the variables under investigation.

The selection of nine black subjects from government schools as opposed to private schools, as well as the fact that none of the university subjects had attended private schools raises questions as regards the comparability of the subjects within the black group and indeed between the university

students and the other age groups. Although ideally the groups should have been as homogeneous as possible, the limited numbers of black children attending private schools made this difficult to achieve. Furthermore, as regards the comparability of subjects within the black group, it must be noted that the majority of blacks (n = 38) resided in the townships. Thus, although their school experience is likely to have been very different, they are likely to have had many common social experiences given their similar living environment. The failure to select university students, and in particular black university students who had attended private schools was clearly a limitation of the present study. Once again however, it may be argued that despite not having had a similar school experience to the black children at private schools, the black university students have a common social experience viz., their environmental experience.

Table 1 summarizes the major features of the participants' demographic characteristics. As indicated in the table, there were significant differences between the two sample groups in household size, family income and socio - economic status. Blacks had an average of six resident members, whereas whites had an average of four resident members. Family income was rated on a scale of one to seven, where one represented a monthly family income of less than R 500 and 7 represented a monthly family income of above R 3 000. Whites had a significantly higher monthly family income (mean=6.46) than blacks (mean= 4.33). Socio - economic status was rated

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF BLACK AND WHITE PARTICIPANTS AND THEIR FAMILY

Characteristics	Number of Cases	Mean	Standard Deviations	F-Value	2-Tail Prob	T-Value	Degrees of Freedom	2-Tail Prob
1. Household size Blacks	40	6.38	2.26	4.30	0.000	4.34	79	0.000
Whites	41	4.66	1.13					
2. Family Income Blacks	40	4.33	2.02	-5.96	0.000	-6.00	79	0.000
Whites	41	6.46	1.05					
3. Socio Economic Status Blacks	40	8.75	4.62	-4.35	0.000	-4.37	79	0.000
Whites	41	14.63	3.28					
4. Participants' Educational Level Blacks	40	7.48	3.08	0.02	0.986	0.02	79	0.986
Whites	41	7.46	2.99					
5. Participants' Age Blacks	40	15.53	3.44	0.11	0.916	0.11	79	0.916
Whites	41	15.44	3.86					

Family Income

- | | |
|----------------|--------------------|
| 1- Below R500 | 5- R2001-R2500 |
| 2- R500-R1000 | 6- R2501-R3000 |
| 3- R1001-R1500 | 7- R3001 and above |
| 4- R1501-R2000 | |

CLASSIFICATION OF SOCIO - ECONOMIC STATUS

	lower	middle	upper
Black	2 3 4 5	6 7 8 9 10	11 12 13 14 15 16
	lower	middle	upper
White	2 3 4 5 6 7 8 9 10	11 12 13	14 15 16

from: Riordan, Z.V.A. (1978)

according to an index compiled by Riordan (1978) for measuring the socio - economic status of South African ethnic groups. This index was a composite index based upon breadwinner's occupation and breadwinner's education. Occupation was scored numerically according to a classification system based upon, "the Republic of South Africa Population Census... and Erwee's (1976) classification (Riordan, 1978, p.137). Numerical values were also assigned for breadwinner's highest educational level. These two scores were then added together to form a total score ranging from 0 - 16, and this provided the socio - economic index. This was then coded according to the classification system as presented earlier. In terms of the validity and reliability of this classification system, Riordan (1978) points out that given the absence of any established criteria as regards socio - economic status of ethnic groups in South Africa, it is not possible to determine the validity of the system as yet. However he notes that during coding they did appear to be a closed correlation between education and occupation, and the definition of the classes appeared to fit the data. Whites

had a significantly higher socio - economic status (mean = 14.63) than blacks (mean = 8.75). Whites were of upper socio - economic status as compared to blacks who were of middle socio - economic status. This finding is of some interest in that given that none of the scholars were sponsored, one might have imagined that blacks and whites should have been of similar socio - economic levels. As to why this was not the case it is not entirely clear. Several possible explanations may be suggested. First, it may simply be an artefact of the present sample, or due to the inclusion in the black sample, of subjects from government schools. For, if one looks at the highest educational level and occupational classification of the parents of the subjects at government schools, this appears to be well below that of the parents whose children were at private schools. Parents of government school children had an average educational level of standard seven, and were primarily semi - skilled and manual workers. In contrast, the parents of children at private schools in general had matric and occupied administrative and professional positions. It is possible that a more homogeneous sample in which all black subjects are selected from private schools may reveal a higher socio - economic status. Second, it may be due to the manner in which socio - economic status was measured. In the present study, socio - economic status was based upon breadwinners occupation and breadwinners education. Level of income was not included in this measure. Although there is clearly a correlation between

occupation and income, this measure does not take into account the occupation of the other parent, and hence the possible influence of combined family income. Thus, the fact that blacks were classified as middle socio - economic status must not be construed as indicative of their financial position. It is possible that the combined family income of the black middle class family is sufficient so as to allow them to send their children to private school. This suggests the need when looking at socio - economic status to de - link status from income or affordability. If black middle class families can afford to send their children to private schools, the question that needs to be answered is why then were the white group also not of middle socio - economic status. A possible reason for this may lie in where the different groups resided. Almost all of the black subjects resided in the townships. This is not only a poor environment in terms of services and amenities but also a less costly environment to live in, than in the suburbs. One would imagine that black families living in the townships are less likely to have large financial commitments such as, e.g., bond repayments, as is the case for white middle class families. Thus it could be argued that sending ones child to a private school may be beyond the means of the white middle class family, and hence may explain why the whites at private schools were found to be of higher socio - economic status.

A third and final explanation for why blacks and whites at private schools were of different socio - economic levels,

concerns their different social realities. Black parents, faced with the prospect of sending their children to black government schools in which there are constant disruptions, lack of facilities, and lack of suitably qualified teachers may be more willing to make a sacrifice in order to send their children to private schools. Indeed, the fact that the majority of the subjects lived in the townships appears to suggest that black parents are willing to make a sacrifice in terms of a poorer living environment so that they can send their children to private schools. For white parents however, whether or not to send ones child to a private school is not likely to be viewed with the same urgency or priority given the advantageous conditions prevailing in white government schools. Thus for whites, sending ones child to a private school may be more of a "luxury" or "status symbol" that one associates with upper socio - economic levels. There were no significant differences between the black and white participants in their age and educational level.

4.2. Instruments

4.2.1. Biographical Inventory

An inventory was compiled by the investigator to obtain relevant biographical details which included, inter - alia, general information concerning marital status, level of education, occupation, income and family size. The inventory also included a number of questions designed to provide information on one aspect of social experience, namely that of type of environment. The parents of the participants in

this study were asked to complete the biographical inventory. A copy of the biographical inventory appears in Appendix A.

4.2.2.Social Experience Questionnaire

This questionnaire was designed by the investigator to obtain relevant information regarding the participants' social experiences. The questionnaire which was administered to each participant included details pertaining to leisure activities engaged in, time spent on these activities, travel time and mode of travel to and from school or university, views concerning home and neighbourhood environment, participation in clubs and organizations in and outside of the educational environment, leadership positions held in such organizations and role - taking opportunities in the family. A copy of this questionnaire appears in Appendix B

4.2.3.Daily Activity Diary

Additional information regarding the participants' social experiences were obtained from the Daily Activity Diary. The diary (compiled by the investigator) was given to each participant. In general, the diary was an hourly record of the participants' activities over a period of one week, and included information concerning friends and family who participated in these activities or who were present but did not participate in these activities. Also included were detailed instructions concerning what activities should be recorded and an example illustrating how such recordings should be made. A summary page occurred at the end of each day on

which participants were required to sum up the day's events and to include any information which they thought may be important (e.g., their personal feelings concerning the type of day that they had experienced, whether the day was a typical day etc.). A copy of the Daily Activity Diary appears in Appendix C.

The diary as a research technique has been used by a number of researchers in America (e.g., Parekh, 1983.) to determine television viewing patterns of children. This technique has not however been utilized previously to document social experiences, and consequently it was not possible to establish the reliability of this instrument. While ideally one should select a research instrument which lends itself to reliability tests, it must be borne in mind that the diary was selected as an appropriate measure within a context in which there was an absence of any other instrument by which to document social experiences. In terms of validity, several techniques were used to establish this. For example, the use of detailed instructions as regards the type of information that should be recorded, that the diary should be discontinued if circumstances arose which made the week an atypical week, and checking with the children that they knew what was required of them.

4.2.4. Colby, Kohlberg and Collaborators (1987a;b) Standard Issue Scoring Manual

This was used to assess the participants' moral reasoning i.e., their level of moral development, moral orientations

and moral type. The manual comprises The Standard Issue Moral Judgement Interview of which there are three parallel forms, A, B, and C which are functionally equivalent, as well as various theoretical and research considerations and procedures for scoring (see section 4.4. for description of scoring procedures). Each of these forms consists of three hypothetical moral dilemmas. Each of the dilemmas are followed by a number of standardized probe questions aimed at eliciting the subject's reasoning underlying his or her responses. Each dilemma confronts the individual with two moral issues. In the Heinz Dilemma (Dilemma 111 form A) the individual is confronted with the following scenario. Heinz does not have enough money to purchase a drug which he needs to save his wife's life. The only pharmacist who has the drug is charging a very high price. Should Heinz steal the drug? In this dilemma the relevant issues are life and law, and the conflict concerns the value of saving a life and value of obeying the law. In the Officer Brown Dilemma (Dilemma 111' form A) the individual is asked whether Officer Brown should report Heinz for stealing and whether a judge should sentence Heinz. In this dilemma the issues are morality and conscience and punishment, and the conflict concerns whether to punish a law breaker when that person breaks the law for moral reasons. In the Father - son Dilemma (dilemma 1 form A), the individual is asked whether a boy, whose father promised him he could go to camp if he earns the money himself, should refuse to give his father the money after his

father goes back on his promise, and wants to use the money himself to go on a fishing trip with his friends. In this dilemma the issues are contract and authority, and the conflict concerns the value of a contract and the value of obedience to one's father.

Form A of the interview was selected over forms B and C as the appropriate means of measuring moral reasoning of the participants in this study. Such a selection was based on the fact that although all three forms of the interview are functionally equivalent, the stories differ in each form, and it was believed that the stories in form A may be more relevant to the South African context. Moreover, given the fact that the largest body of research on Kohlberg's universality claims has been conducted utilizing form A of the interview, it was believed that its utilization in this research would facilitate ease of comparison with past research.

4.3.Data Collection Procedures

The data was collected over a period of eleven months from June 1990 to April 1991. For the participants at private schools the procedure was as follows. The principals of the various schools were contacted, interviews with these principals were arranged, and the general nature of the study was explained. On receiving permission, letters of consent that were to be completed by the parents were distributed to all children in the relevant age groups. On receiving these letters of consent, a list of willing participants was made and the principals of the various schools were given the

names of these pupils. It was then ascertained whether participants were of average or above average intelligence. On confirmation of this, the most suitable week was selected for conducting the research. All the schools were visited prior to the targeted week, the nature of the task was explained to the participants, and the biographical inventories, social experience questionnaires and diaries were handed out. In the case of the youngest age group, teachers and parents were informed of what was required of the participants and they were requested to assist in the completion of the diary and questionnaire.

At the end of the targeted week the schools were revisited and data were collected. The diaries, biographical inventories and questionnaires for the black and white participants were analyzed, and any problems evidenced in the manner in which they were completed, were duly noted. All the parents were then contacted telephonically and interviews were arranged. The majority of the interviews for the white participants were conducted at their homes. All the black participants were interviewed at their various schools in classrooms allocated to the researcher by the school principals. After the interview any clarification or problems as regards the participants completion of the diary and social experience questionnaire were dealt with.

The procedure used for the participants from black government schools and from universities and technicons was in

keeping with the procedure used with private school participants aside from method of contact and place of interview. The participants from black government schools were contacted through the university students and the children at private schools who had participated in this research. Handing out of the diaries, biographical inventories and social experience questionnaires, and subsequent interviews were conducted at the University of Durban - Westville. For the university students, contact was made primarily through a request for volunteers from the Psychology practical classes at the University of Durban - Westville.

The interview procedure was the same for all participants. Each participant was interviewed separately, and the duration of each interview was approximately one hour. Each participant was informed that the interview comprised three stories, with each story being followed by a number of questions. Moreover, it was explained to each participant that there were no right or wrong answers and that he/she should ask for clarification should he/she not understand something. The participants were not informed as regards the direct purpose of the interview. The first dilemma was then read, and the participant was asked whether he/she had understood the story. If the participant replied in the affirmative, then he/she was asked to briefly recount the story. If the participant had not understood the story, it was repeated. The participant was then asked the 9-12 standard probe questions. The responses to these questions were written down verbatim

by the researcher. Any questions that the participant was unable to answer were left until the end of the interview. The same procedure was adopted for the second and third dilemmas.

4.4. Scoring of the Moral Judgement Interview (MJI)

Scoring of the MJI comprised a complex process involving 17 different steps (for a summary of these steps, as well as an example of the scoring sheet, see Appendix D). The basic procedure involved classifying each interview judgement according to stage of moral development, moral orientations and moral type.

4.4.1. Stage of moral development

Stage of moral development represents a way of thinking about moral dilemmas, it is a view concerning moral relationships in general, and it provides a framework for organizing one's views concerning social situations and one's rights and obligations in such situations.

4.4.1.1. Identification and Classification by Issue

The first step in determining stage of moral development was to identify the chosen issue. Every dilemma in the MJI involves a conflict between two moral issues. For instance, in the Heinz dilemma the individual is confronted with the issues of life versus law. If the individual favours stealing the drug to save a life, the chosen issue is life, if the individual does not favour stealing, then the chosen issue is

law. Once the chosen issue was identified for a particular dilemma, all of the responses to the probe questions for that dilemma that support the chosen issue were classified first. (Colby et al., 1987a;b). In all there are six moral issues namely, life; law; morality and conscience; punishment; contract; and authority.

4.4.1.2. Norm classification

The second step was to classify the material on the chosen issue according to the norms. The norm represents the moral value or object of concern that is being brought to bear by the subject in justifying a choice in the dilemma (ibid.). There are a variety of norms for each issue (see Appendix D for a list of these norms).

4.4.1.3. Matching

The third step was to try and match the individual responses on the chosen issue to specific criteria laid down in the scoring manual. A match was achieved when the criteria were met, and then a stage score was assigned for each of the responses under the chosen issue. The same procedure was then adopted for all the responses on the non - chosen issue.

4.4.1.4. Issue Scores, Global stage scores and Weighted Average Scores

Stage scores for each issue were then calculated by counting the number of times a stage appeared. A stage was only included if it comprised twenty five percent or more of the scores. Once issue scores on a particular dilemma were

obtained, the same procedure was adopted for the second and third dilemmas. When scores on the six issues had been calculated, a global stage score (GSS) was computed by a system of points in which scores for chosen issues were given more weight than scores for non - chosen issues. The final step was the calculation of a weighted average score (WAS). A weighted average score was calculated for each interview as well as per dilemma. The same scoring procedure was used in both cases. Each stage that was represented in the interview was multiplied by weighted points for that stage. The products for all of the stages were then summed and divided by the total number of weighted points. The result was then multiplied by one hundred to provide a WAS ranging from one hundred to five hundred (Colby et al., 1987a;b).

4.4.2.Moral Orientations

There are four types of moral orientations, namely, normative, utilitarian, perfectionist and fairness. The normative orientation focusses on the maintenance of the normative order and adherence to prescribed rules and roles. The utilitarian orientation focus'ses on the welfare for self and others. The perfectionist orientation emphasizes harmony with self and others and dignity and autonomy. The fairness orientation emphasizes justice and focusses on equity, equality, reciprocity and contact.

Moral orientation scores were obtained from the elements (i.e., the reasons underlying the choices) that were scored

for the interview judgements. Each orientation score was expressed in terms of percentage usage of an orientation for the interview judgement as a whole.

4.4.3.Moral Type

The moral judgement interview was also scored for moral type. Moral type represents an additional means of classifying a participant's responses, and together with moral stage scores provides a richer source of information about the nature of a participant's moral reasoning. Moral types, unlike the stage scores, are based upon the content and structure of the participant's responses rather than simply on the underlying structure. There are two types of moral judgements namely "Heteronomous" or "Type A" and "Autonomous" or "Type B" judgements. The distinction between these two types of moral judgements is based on a number of criteria including the criteria of "freedom", "mutual respect" "reversibility" and "constructivism". Autonomous judgements are judgements which are not based upon external sanction for their justification. Rather, their justification comes from within, from a sense of justice - justice as equality and reciprocity moderated by an acknowledgement of particular circumstances and situations. They are not based upon unquestioning of laws and authority, but rather on a desire to treat others as they themselves would like to be treated. The person who makes autonomous judgements realizes that laws are made by people, that they may be unjust and can be changed if there

is consensus in this regard (ibid.). Heteronomous judgements on the other hand are judgements which are based upon external sanction for their justification. What is just or fair is determined by laws or rules laid down by powerful authority figures. Rules and laws are sacrosanct and are not subject to change (ibid.).

Moral type was determined by reexamining the interview responses and categorizing them on the basis of nine criteria laid down in the Standard Issue Scoring Manual. Responses which met these criteria were classified as Type B responses and those that did not meet the criteria were classified as Type A responses. A classification was obtained for each dilemma, and then a simple two out of three rule was utilized to determine categorization for the interview as a whole. The manual contained a number of critical criteria which had to be met for the responses to be classified as Type B. Any failure on these critical criteria resulted in a Type A classification.

Reliability

In the present study, interrater reliability (i.e., extent of agreement between two or more raters) was determined by having a second scorer score approximately ten percent of the MJI. Two interviews (one from a black participant, one from a white participant) were randomly selected from each of the four age groups. The percentage agreements method was used to determine the reliability of the GSS, moral orientations

and moral type. In this method reliability is determined by the number of agreements over the number of agreements plus disagreements times 100. The reliability achieved for GSS was 80 percent. For moral orientations the reliability achieved was 88.1 percent for the normative orientation, 85.7 percent for the utilitarian orientation, 87.8 percent for the perfectionist orientation and 86.7 percent for the fairness orientation. There was 90 percent agreement for moral type. For WAS, reliability was determined by use of a Pearson correlation. Reliability in this regard was $r = 0.922$ (see Appendix F). These reliability figures are consistent with those reported by previous research (e.g., Walker, 1986)

4.5. Scoring of the biographical inventory, social experience questionnaire and diary

Social experience was operationalized in terms of five categories : environment, leisure activities, role - taking opportunities, family cohesion and racial integration. Scores for leisure activities, role - taking opportunities and racial integration were obtained separately from the diary and social experience questionnaire. Scores for these three categories on the diaries were obtained by counting the number of times the person was involved in these activities over a one week period. This produced a frequency score for each participant on each of these categories. For the social experience questionnaire, scores for each of these three

categories were obtained from specifically designed questions, by assigning points, where the greater the number of points or the higher the score the better the score. For the category of leisure activities there were four specifically designed questions, namely Questions 1, 3, 4 and 5. These questions focussed on the participant's interest in leisure activities (interest in terms of number of leisure activities), time spent on these activities, affordability and distance and time spent travelling when participating in these activities and method of travel. For the category of role - taking opportunities the relevant questions were questions 14 and 15 as well as questions 1 and 2 of section three or four (depending on whether the individual was at school or university/technicon). These questions focussed on chores each day, time spent on these chores, membership in teams or groups in and outside of the educational environment. For the category of Racial Integration the focus was on friendships with individuals from other racial groups. The relevant questions here were questions 16 and 17. Scores for the family cohesion category were obtained purely from the diary, and represented a frequency score of the number of times there was interaction between the participant and his or her parents and siblings over a one week period. Scores for the environment category were obtained from the biographical inventory and the social experience questionnaire. The relevant questions were questions 12, 14, 15,

16, 17, 18, of the biographical inventory and 2, 6, 7, 8, 9, 10, 11, 12 of the social experience questionnaire. These questions focussed on the nature of the physical environment, existence of amenities, personal views concerning the home and surrounding environment and method of travel to and from school or university/technicon. The allocation of points is illustrated in Appendix A and B.

A composite measure of social experience (social index) was also calculated from the scores on the biographical inventory and social experience questionnaire. This index of social experience was calculated by totalling the scores on the categories of environment, leisure activities, racial integration, and role - taking opportunities, and then by dividing the total by the number of categories. In most instances, this social index was used in subsequent statistical analyses.

In the following chapter the results of the statistical analyses are presented.

CHAPTER FIVE

RESULTS

In this chapter, the results of the statistical analysis of the data are presented in relation to the aims as stated earlier.

The principle aim in the analysis of the data was to examine the relationship between social experience and moral reasoning, and to test two aspects of Kohlberg's universality claims.

The method adopted was first to test for differences in moral reasoning, and then to examine whether the sample differed in their social experience. This was then followed by analyses to determine whether there is a relationship between social experience and moral reasoning. Aspects of Kohlberg's universality claims were tested by examining the age - stage of moral development relationships, and the range of stages among the sample.

5.1.Moral Reasoning

The objective here was to determine whether blacks and whites as well as the different age groups differed in their level of the moral development for the interview as a whole,

in their level of moral development on each of the six moral issues, in their usage of the moral orientations, and in their moral type. This was achieved by analyzing the data derived from the Moral Judgement Interview (MJI).

5.1.1. Level of Moral development

A two - by - four Anova was performed with race (blacks and whites) and age group (10-12,13-15,16-18,19-28) as the factors, to determine differences in level of moral development for the MJI as a whole. The statistical package used was Systat MGLH 5.0 edition. The dependent variable was the weighted average scores (WAS) of the 81 participants. The mean WAS for the two race groups and four age groups, and a summary table of the analysis of variance results are presented in tables 2 and 3 respectively.

The results of the two - by - four anova for WAS (see table 3) revealed a significant main effect for race and age group as well as a significant race x age group interaction effect. The significant race x age interaction effect $F(3,73) = 4.27, P < 0.01$ was found to work both ways such that there were significant differences between the race groups but within particular age groups, and significant differences between the age groups but within particular race groups. Following the procedure adopted by Shavelson (1981) for analyzing the results of analysis of variance in

TABLE 2: MEANS AND SD OF WAS FOR BLACKS AND WHITES ACROSS FOUR AGE GROUPS

(N=81)
Age Group

Race	10-12	13-15	16-18	19-28	Combined
Black					
M	231.20	230.70	273.30	284.90	255.03
SD	15.49	28.53	33.15	21.61	34.87
White					
M	214.00	254.50	289.80	333.40	271.49
SD	30.84	28.01	14.60	49.86	55.18
Both Groups					
M	222.19	242.60	281.55	309.15	
SD	25.71	30.10	26.33	44.92	

TABLE 3: ANALYSIS OF VARIANCE OF THE TOTAL WAS CLASSIFIED ACCORDING TO RACE AND AGE GROUP

(N=81)

Source of Variation	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Race	6481.86	1	6481.86	7.34	0.008
Age Group	91980.04	3	30660.01	34.74	0.000
Race X Age Group	11315.59	3	3771.86	4.27	0.008
Error	64433.20	73	882.65		

which there are interaction effects working both ways, the main effects were not analyzed further. Subsequent Scheffé tests (see Appendix G) conducted on the interaction effects revealed significant differences between the race groups only within the 19-28 age group (means = 284.90 and 333.40 for blacks and whites respectively). Whites had a significantly higher level of moral development than blacks. Significant age differences were found both for blacks and whites between the 10-12 vs 16-18; 10-12 vs 19-28; and 13-15 vs 19-28 age groups. Further significant age differences for whites were found between the 10-12 vs 13-15 and 16-18 vs 19-28 age groups and for blacks between the 13-15 vs 16-18 age groups. In all instances the means for the older age groups were higher than the means for the younger age groups. A summary of these findings can be seen in table 4.

TABLE 4: SUMMARY OF FINDINGS OF AGE X RACE INTERACTION EFFECTS ON WAS.

Race	Age Group					
	10-12 vs 13-15	10-12 vs 16-18	10-12 vs 19-28	13-15 vs 16-18	13-15 vs 19-28	16-18 vs 19-28
Black		*	**	*	**	
White	*	**	**		**	*

* p < 0.05
 ** p < 0.01

Overall the results suggest that although there are significant differences between the two race groups in their level of moral development, these differences are to be found only in the 19-18 age group and it is this age group that is accounting for the overall differences in level of moral development between the two race groups. Moreover, the results suggest that while there are significant age group differences, with older age groups at higher levels of moral development, where these differences lie will vary between the two race groups.

Two aspects of Kohlberg's universality claims were examined in this study, namely, that there should be a relationship between age and level of moral development, and that all five stages of moral development should be evidenced in this sample.

Consistent with the approach adopted by Snarey, Reimer and Kohlberg (1984), the relationship between age and level of moral development was determined by observing the mean WAS and range of stages for each age group (see table 5). As reflected in table 5, Stage 2/3 was the modal stage for the 10-12 age group, with 57,2 % of these participants assigned to this stage. No participant in the 10-12 age group scored higher than stage 3. Stage 2/3 was also the modal stage for the 13-15 age group, with 65% of these participants assigned to this stage. The highest stage

TABLE 5: FREQUENCY AND PERCENTAGE OF PARTICIPANTS IN EACH AGE GROUP AT EACH STAGE OF MORAL DEVELOPMENT

Global Moral Stages

Age Group	N	1	1/2	2	2/3	3	3/4	4	4/5	5	Mean WAS
10-12	21	%	%	%	%	%	%	%	%	%	215.47
			4(19)	4(19)	12(57.20)	1(4.80)					
13-15	20		1(05)	1(05)	13(65.00)	4(20.00)	1(05)				232.90
16-18	20				5(25.00)	11(55.00)	4(20)				288.45
19-28	20				5(25.00)	5(25.00)	9(45)			1(5)	295.05

attained by a 13-15 year old was stage 3/4. In the 16-18 age group the modal stage was stage 3 with 55% of the participants scoring at this stage. The highest stage obtained by a 16-18 year old was stage 3/4. For the 19-28 age group, the modal stage was stage 3/4, with 45% of these participants assigned to this stage. It is also in this age group where the highest stage of moral development, namely stage 5, appears for the first time. The mean WAS gradually increased from 215,47 in the 10-12 age group to 295,05 in the 19-28 age group. A pearson product-moment correlation was computed between age and WAS of the participants. The statistical package used was Systat MGLH 5.0 edition. The results revealed a significant correlation between age and WAS, $r = 0,76$, $P < 0,001$ (see Appendix H)..lm7

Table 5 revealed that the full range of stages were not evidenced in this sample¹. No participants in this study scored at stage 1 or stage 4.

5.1.2.Moral Issues

Six two - by - four Anovas with race (blacks and whites)

and age groups (10 - 12, 13 - 15, 16 - 18, 19 - 28) as the factors were computed to determine differences in level of moral development on the issues of life, law, morality and conscience, punishment, contract and authority². The statistical package used was Systat MGLH 5.0 edition. The mean WAS on each of the six moral issues for the two race groups and four age groups, and a summary table of the analysis of variance results are presented in tables 6 and 7 respectively.

Analysis of variance for each issue by race and age group revealed significant age main effects on the issues of life, law, morality and conscience, punishment, contract, and authority (see Table 7). It should be noted that in keeping with the procedure for analyzing results when multiple significance tests are carried out, the significance levels were raised from 0.05 to 0.01 for the present analysis. Subsequent Scheffé Tests (see Appendix I). revealed that, irrespective of race the

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1. Full range of stages refers only to pure stages, namely stages 1, 2, 3, 4 and 5, and does not include transitional stages. Moreover it does not include stage 6, as this stage has been dropped from the new Standard Issue Scoring manual.
 2. Analysis of variance with repeated measures was not utilized because a number of participants had no scores on particular issues. This is consistent with previous research (e.g., Nissan and Kohlberg, 1982) which used the same approach when scores on all issues were not available. It is recognised that the more statistical tests undertaken the greater the likelihood of finding one or more of these tests significant. The correct response when conducting multiple significance tests is to compensate by raising the chosen level of significance.

TABLE 6: MEANS AND SD OF ISSUE SCORES CLASSIFIED ACCORDING TO RACE AND AGE GROUP

(N=81)
ISSUES

	Life	Law	Morality and Conscience	Punish- ment	Contract	Authority
10 - 12 Age Group						
Race						
Black						
M	255.00	193.30	76.70	186.70	250.00	243.30
SD	37.75	50.99	123.59	89.49	11.33	54.08
White						
M	251.46	193.82	134.82	168.27	204.82	240.91
SD	36.13	50.73	131.31	54.49	62.25	46.74
Both Groups						
M	253.23	193.56	105.76	177.49	277.41	242.11
SD	36.02	49.57	127.98	71.95	50.30	49.09
13 - 15 Age Group						
Black						
M	233.30	195.00	116.70	209.90	245.10	250.00
SD	92.26	72.90	156.38	71.65	26.26	47.97
White						
M	271.50	220.00	136.70	248.40	255.10	246.90
SD	41.46	77.70	145.08	45.50	26.22	53.57
Both Groups						
M	252.40	207.50	126.70	229.15	250.10	257.45
SD	72.32	74.44	147.17	61.66	26.05	50.08

Table 6 continued.

	Life	Law	Morality and Conscience	Punish- ment	Contract	Authority
16 - 18 Age Group						
Black						
M	298.20	216.40	210.10	264.70	270.00	293.30
SD	33.27	102.09	114.24	43.30	39.10	26.29
White						
M	288.10	285.00	221.60	268.10	289.90	279.80
SD	52.16	63.21	153.92	52.76	45.55	35.75
Both Groups						
M	293.15	250.70	215.85	266.40	279.95	286.55
SD	42.89	89.82	132.05	47.01	42.56	31.31
19 - 28 Age Group						
Black						
M	286.70	251.30	178.30	276.90	299.90	308.10
SD	36.63	61.33	158.28	64.57	34.58	40.84
White						
M	338.40	333.20	305.00	314.70	355.10	316.50
SD	65.75	77.67	116.82	80.68	61.47	58.68
Both Groups						
M	312.55	292.25	241.65	295.80	327.50	312.30
SD	58.20	80.03	150.19	73.72	56.20	49.39
Combined Age Groups						
Black						
M	268.30	214.00	145.45	234.55	266.25	273.68
SD	59.44	75.23	143.99	76.57	35.97	50.33
White						
M	287.36	258.01	199.53	249.87	276.23	275.53
SD	58.02	85.71	149.95	79.12	74.52	55.09

**TABLE 7: ANALYSIS OF VARIANCE OF WAS FOR EACH ISSUE
CLASSIFIED ACCORDING TO RACE AND AGE GROUPS
(N=81)**

Source of Variation	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Life Issue					
Race	7351.99	1	7351.99	2.64	0.109
Age Group	54412.97	3	18137.66	6.51	0.001
Race X Age Group	14085.38	3	4695.13	1.69	0.178
Error	203384.33	73	2786.09		
Law Issue					
Race	39173.15	1	39173.15	7.75	0.007
Age Group	121568.12	3	40522.17	8.01	0.000
Race X Age Group	21911.15	3	7303.72	1.44	0.237
Error	369193.84	73	5057.45		
Morality and Conscience Issue					
Race	59164.27	1	59164.27	3.09	0.083
Age Group	268449.71	3	89483.24	4.67	0.005
Race X Age Group	41326.21	3	13775.40	0.72	0.544
Error	1398379.34	73	19155.88		
Punishment Issue					
Race	4746.88	1	4746.88	1.14	0.290
Age Group	160277.76	3	53425.92	12.80	0.000
Race X Age Group	11886.08	3	3962.03	0.95	0.421
Error	304633.58	73	4173.06		
Contract Issue					
Race	2014.72	1	2014.72	1.14	0.290
Age Group	113990.12	3	37996.71	21.42	0.000
Race X Age Group	26646.35	3	8882.12	5.01	0.003
Error	129486.14	73	1773.78		
Authority Issue					
Race	69.41	1	69.41	0.03	0.859
Age Group	59277.30	3	19759.10	9.11	0.000
Race x Age Group	2338.30	3	779.43	0.36	0.783
Error	158423.01	73	2170.18		

younger children (up to age 15) were consistently and significantly lower in their moral judgements than the older children (19 - 28) on the issues of life, law, punishment, contract, and authority ($p < 0.05$). On the issue of morality and conscience only the youngest age group (10-12 year olds) differed significantly (viz., lower) in their moral judgements when compared with the oldest age groups (19-28 year olds). On the issues of punishment and authority the 10-12 age group was also significantly lower in their moral judgements than the 16-18 age group. A summary of these age main effects can be seen in table 8.

Table 8: SUMMARY OF FINDINGS OF AGE MAIN EFFECTS ON SIX MORAL ISSUES

Comparison Age Groups	ISSUES					
	Life	Law	Morality and Conscience	Punishment	Contract	Auth- ority
10-12 vs 13-15						
10-12 vs 16-18				**		*
10-12 vs 19-28	**	**	*	**	**	**
13-15 vs 16-18						
13-15 vs 19-28	**	**		*	**	**
16-18 vs 19-28					**	

* $P < 0.05$
 ** $P < 0.01$

Interestingly, the only race and age x race interaction effects to approach significance were in the issues of law and contract respectively. On the law issue the results revealed that white children reasoned at a higher level than black children, $F(1,73) = 7.75, P < 0.01$. On the contract issue, the significant race x age group interaction effect, $F(3,73) = 5.01, P < 0.001$ suggested that there were significant differences between the age groups but within particular race groups. Subsequent Scheffé tests (see Appendix I) revealed that these differences were to be found primarily in the white group, where the older children (19-28 year olds) were significantly higher in their moral judgements on the contract issue than children between the ages of 10-18. For the black group the only race x age interaction effect on the contract issue was between the 13-15 and 19-28 age groups, with the older children reasoning at a higher level on this issue than the younger children.

In summary, the results of the analysis of variance suggest that the older children reason at higher levels than younger children on the issues of life, law, morality and conscience, punishment, contract, and authority. Moreover, whites reason at higher levels on the law issue than blacks, and they show more significant age differences on the contract issue than do blacks.

5.1.3.Moral Orientations

A two (race) by four (age group) by four (moral orientation) analysis of variance with repeated measures on the last factor (orientation) was computed to determine whether there were significant differences between the races and the age groups in their usage of the normative, utilitarian perfectionist and fairness orientation³. The statistical package used was Systat MGLH 5.0 edition. The mean orientation scores and summary of the univariate repeated measures results appear in tables 9 and 10 respectively.

The results revealed significant within subjects effects for orientation $F(3,219) = 41,46, P < 0,001$ and for age group $F(9,219) = 5,08, P < 0,000$. There were significant differences in the shape of the orientation profiles for the different age groups. This can be seen in Figure 1. Figure 1 suggests that the younger children (i.e., 10 - 15 yea olds) tend to use more of the normative and utilitarian orientations than fairness and perfectionism, and this use

3. Although a between subjects analysis was conducted it was recognised that given the scoring procedure in which each individual's score over all the orientations always equalled 100 percent, that there would be no significant differences between subjects, but that the analysis may reveal important within subjects effects.

TABLE 9: MEAN PERCENTAGE MORAL ORIENTATION SCORES CLASSIFIED ACCORDING TO RACE AND AGE GROUP

(N = 81)
Moral Orientations

Race	Mean				S D			
	N	U	P	F	N	U	P	F
10-12 Age Group								
Black	39.79	30.93	20.65	8.64	13.80	13.12	11.01	7.69
White	36.08	46.65	13.74	3.53	17.30	11.42	10.37	5.10
Both Groups	37.93	38.79	17.19	6.08	15.46	14.40	10.99	6.81
13-15 Age Group								
Black	32.61	37.56	21.68	8.15	16.03	10.68	13.23	7.29
White	26.39	38.18	26.51	8.92	11.18	15.52	9.94	7.50
Both Groups	29.50	37.87	24.09	8.54	13.83	11.33	11.65	7.21
16-18 Age Group								
Black	23.33	35.45	31.72	9.54	11.68	16.52	12.55	8.15
White	26.48	28.09	30.16	15.26	11.29	8.77	16.10	9.43
Both Groups	24.90	31.77	30.94	12.40	11.30	13.42	14.07	9.07
19-28 Age Group								
Black	20.57	39.70	23.25	16.47	9.88	12.52	10.47	14.44
White	21.63	20.83	36.98	20.58	9.52	12.19	10.16	17.21
Both Groups	21.10	30.26	30.12	18.52	9.46	15.44	12.27	15.60
Combined Age Group								
Black	29.08	35.91	24.32	10.70	14.73	13.27	12.23	10.05
White	27.65	33.44	26.85	12.07	13.47	14.80	14.36	12.20
Total								
	28.46	34.82	25.44	11.29				

Moral Orientation: N - Normative
 U - Utilitarian
 P - Perfectionist
 F - Fairness

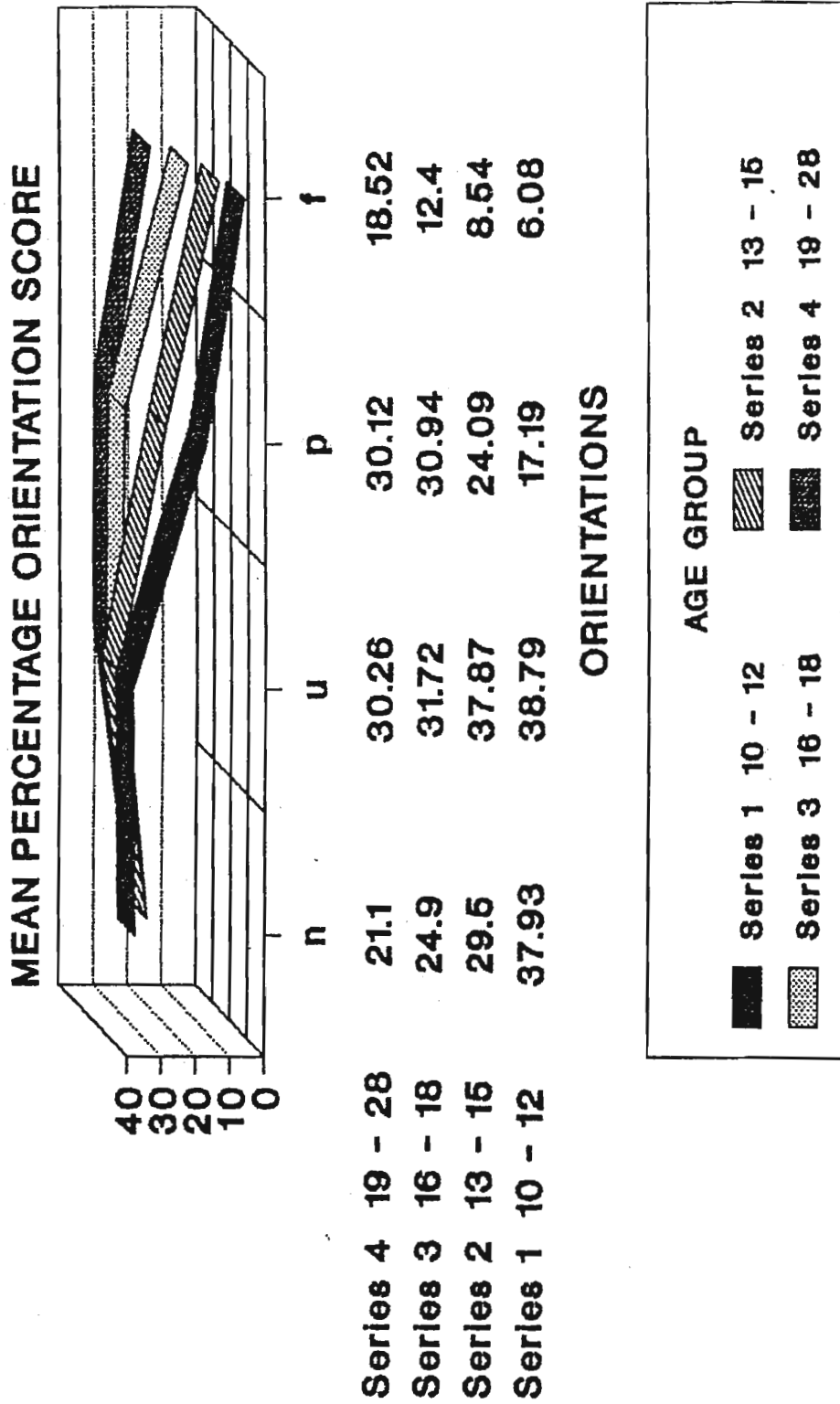
Table 10: UNIVARIATE REPEATED MEASURES ON MORAL ORIENTATION SCORES CLASSIFIED ACCORDING TO RACE AND AGE GROUP

Source of Variation	SS	DF	MS	F	P
Between Subjects					
Race	0.00	1	0.00	0.96	0.332
Age Group	0.00	3	0.00	0.30	0.829
Race X Age Group	0.00	3	0.00	1.88	0.141
Error (Between)	0.03	73	0.00		
Within Subjects					
Orientation	23515.89	3	7383.63	41.46	0.000
Race	332.13	3	110.71	0.59	0.625
Age Group	8649.61	9	961.07	5.08	0.000
Race X Age Group	5081.78	9	564.64	2.99	0.002
Error (Within)	41409.71	219	189.09		

decreases with age. Furthermore, it would appear from figure 1 that in the case of the older children (16-28) there is a general increase in the usage of the perfectionist and fairness orientation, with a corresponding decrease in the use of the normative and utilitarian orientation. In addition, a race x age x orientation interaction $F(9,219)=2.99$, $P<0.001$ was found, and is illustrated in figures 2 and 3.

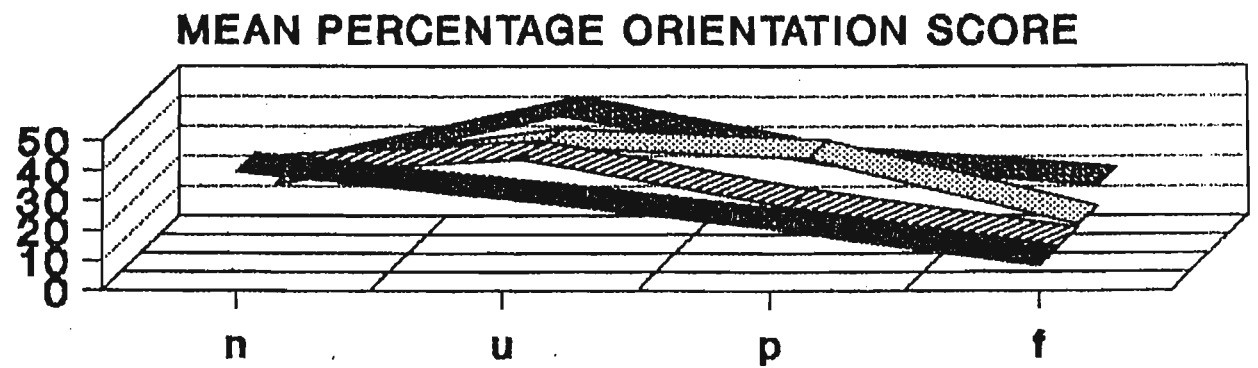
Post hoc analyses by way of Scheffé tests (see Appendix J) were carried out to further investigate this interaction.

**FIGURE 1. MORAL ORIENTATIONS CLASSIFIED
ACCORDING TO AGE.**



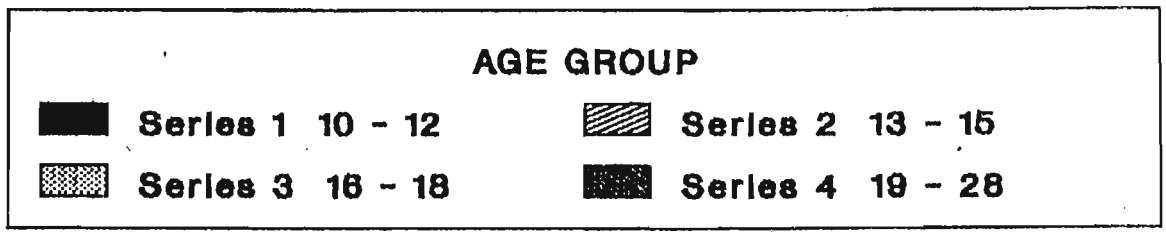
N - NORMATIVE, U - UTILITARIAN
P - PERFECTIONIST, F - FAIRNESS

FIGURE 2. MORAL ORIENTATIONS CLASSIFIED ACCORDING TO RACE AND AGE GROUP (BLACK)



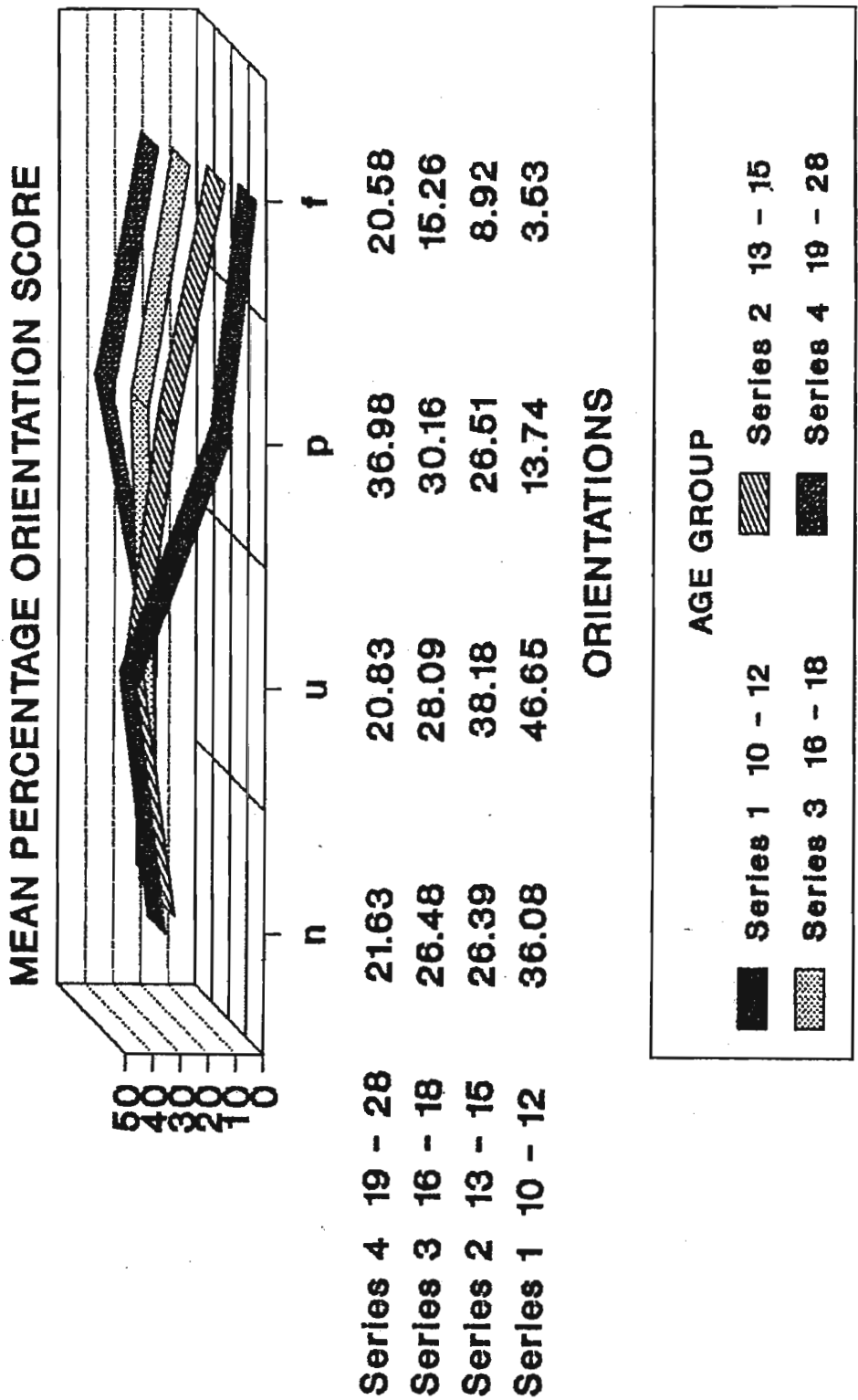
		n	u	p	f
Series 4	19 - 28	20.57	39.7	23.25	16.47
Series 3	16 - 18	23.33	35.45	31.72	9.54
Series 2	13 - 15	32.61	37.56	21.65	8.64
Series 1	10 - 12	39.79	30.93	20.65	8.15

ORIENTATIONS



**N - NORMATIVE, U - UTILITARIAN
P - PERFECTIONIST, F - FAIRNESS**

FIGURE 3. MORAL ORIENTATIONS CLASSIFIED ACCORDING TO RACE AND AGE GROUP (WHITE)



N - NORMATIVE, U - UTILITARIAN
 P - PERFECTIONIST, F - FAIRNESS

The results of this interaction are presented in tables 11 and 12 respectively. It was found that irrespective of race, in the 10-12 year old age group the normative orientation was used significantly more than the perfectionist and fairness orientations, and the utilitarian orientation significantly more often than the fairness orientation. When utilitarianism is compared to fairness, blacks irrespective of their age used significantly more of the utilitarian than the fairness orientation. This pattern is only true for white children in the younger age groups (i.e., 10-12 and 13-15 age groups). Significantly, in the 19-28 age group, blacks used more of the utilitarian than the normative orientation. This was not the case for whites.

In summary, the results suggest a number of significant findings. First, there are significant differences among the age groups in their use of the orientations. Younger children (i.e., 10-12 year olds) use more of the normative and utilitarian orientations than the perfectionist and fairness orientations. Second, these age differences are not uniform for blacks and whites. Blacks show more variance among the age groups in their use of the orientations than whites. The variance for whites in their use of orientations does not extend beyond the 13-15 age group on any of the comparison orientations.

TABLE 11: MEANS AND F-VALUES OF THE COMPARISON ORIENTATIONS CLASSIFIED ACCORDING TO RACE AND AGE GROUP

		N vs U		N vs P		N vs F		U vs P		U vs F		P vs F	
						10 - 12		Age Group					
Means	Blacks	39.79	30.93	39.79	20.65	39.79	8.64	30.93	20.65	30.93	8.64	20.65	8.64
	Whites	36.08	46.65	36.08	13.74	36.08	3.53	46.65	13.74	46.65	3.53	13.74	3.53
F-Values	Blacks	2.07		9.68*		25.67**		2.80		13.14*		3.82	
	Whites	3.25		14.52**		30.82**		31.52**		54.10**		3.03	
						13 - 15		Age Group					
Means	Blacks	32.61	37.56	32.61	21.68	32.61	8.15	37.56	21.68	37.56	8.15	21.68	8.15
	Whites	26.39	38.18	26.39	26.51	26.39	8.92	38.18	26.51	38.18	8.92	26.51	8.92
F-Values	Blacks	0.65		3.16		15.82**		6.68		22.88**		4.84	
	Whites	3.67		0.00		8.07		3.60		22.64**		8.18	
						16 - 18		Age Group					
Means	Blacks	23.33	35.45	23.33	31.72	23.33	9.54	35.45	31.72	35.45	9.54	31.72	9.54
	Whites	26.48	28.09	26.48	30.16	26.48	15.26	28.09	30.16	28.09	15.26	30.16	15.26
F-Values	Blacks	3.89		1.86		5.03		0.37		17.76**		13.01*	
	Whites	0.07		0.36		3.33		0.11		4.35		5.87	
						19 - 28		Age Group					
Means	Blacks	20.57	39.70	20.57	23.25	20.57	16.47	39.70	23.25	39.70	16.47	23.25	16.47
	Whites	21.63	20.83	21.63	36.98	21.63	20.58	20.83	36.98	20.83	20.58	36.98	20.58
F-Values	Blacks	9.68*		0.19		0.45		7.16		14.27**		1.22	
	Whites	0.02		6.24		0.03		6.90		0.00		7.12	

N = Normative
 U = Utilitarian
 P = Perfectionist
 F = Fairness

* = Significant at 0.05 level
 ** = Significant at 0.01 level

TABLE 12: MORAL ORIENTATIONS: SUMMARY OF RACE X AGE INTERACTION EFFECTS ACROSS THE MORAL ORIENTATIONS.

COMPARISON ORIENTATIONS

Age Group	Race		N vs D		N vs P		N vs F		U vs P		P vs F	
	B	W	B	W	B	W	B	W	B	W	B	W
10 - 12	(N=10)	(N=11)			✓	✓	✓	✓		✓	✓	✓
13 - 15	(N=10)	(N=10)					✓			✓	✓	
16 - 18	(N=10)	(N=10)								✓		✓
19 - 28	(N=10)	(N=10)	✓							✓		

✓ = indicates where significant differences lie

B = Blacks

W = Whites

N = Normative

U = Utilitarian

P = Perfectionist

F = Fairness

5.1.4. Moral Type

Moral type refers to the type of moral judgements (autonomous, heteronomous) that are made in the MJJ. Moral types are different from moral stages in that they, "represent the presence of the content and structure of ideal autonomous moral reasoning at various stages of reasoning" (Colby et al., 1987a, p.909). Scores for moral type were obtained by

re - examining the MJI, and classifying the responses according to the rules as outlined in The Standard Issue Scoring Manual. Chi squares were undertaken to determine race and age group differences in moral type. The statistical package used was Systat MGLH 5.0 edition.

The results of a two - by - two chi square revealed no significant race effect (see table 13). Blacks and whites did not differ significantly in their type of moral reasoning, $\chi^2(1) = 0.943$, $P > 0.05$. Seventy percent of both race groups were moral type A (i.e., heteronomous), and thirty percent moral type B (i.e., autonomous). A two - by - four chi square for age revealed a significant age effect, $\chi^2(3) = 15.248$, $P < 0.01$ (see table 14). The age groups differed significantly in their type of moral reasoning. The major difference appeared to be between the 10-12 age group and 19-28 age group. In the 10-12 age group, ninety percent of the participants used type A moral reasoning as opposed to the 19-28 age group in which forty percent of the participants used type A reasoning.

It would appear from the results that with an increase in age, participants used more type B reasoning than type A reasoning.

TABLE 13: CONTINGENCY TABLE OF RACE BY MORAL TYPE

Race	Moral Type				Total
	Type A (Heteronomous) f %		Type B (Autonomous) f %		
Black	28	70	12	30	40
White	29	70	12	30	41
Total	57	70	24	30	81
$\chi^2 = 0.943 (DF = 1) \quad P > 0.05$					

Table 14: CONTINGENCY TABLE OF AGE GROUP BY MORAL TYPE

Age Group	Moral Type				Total
	Type A (Heteronomous) f %		Type B (Autonomous) f %		
10-12	19	90	2	10	21
13-15	17	85	3	15	20
16-18	13	65	7	35	20
19-28	8	40	12	60	20
Total	57	70	24	30	81
$\chi^2 = 15.248 (DF = 3) \quad P < 0.01$					

5.2.Social Experiences

The objective here was to determine whether blacks and whites differed significantly in their social experiences. In order to determine this, two sets of analyses were undertaken viz., (1) one - way Anova's on the four categories of social experience (viz., environment, role - taking opportunities, racial integration, leisure activities) derived from the biographical inventory and the social experience questionnaire, as well as on the composite social experience index, and (2) goodness of fit chi squares were computed on the frequency scores from the categories of family cohesion, racial integration, leisure activities and role - taking opportunities derived from the diary.⁴ The results of these two sets of analyses are presented below.

a.One - way Anova's

One - way anova's were computed for the scores on the four categories of social experience and for the social experience index scores. The statistical package used was Systat MGLH 5.0 edition. The mean scores of the two race groups on these categories, and a summary table of the analysis of variance results are presented in tables 15 and 16 respectively.

4. The data from the biographical inventory and the social experience questionnaire were examined separately from the diary, because the scoring procedure used on these different measures did not facilitate the formation of a single score for each of the categories of social experience.

TABLE 15: MEANS AND SD OF SOCIAL EXPERIENCE SCORES CLASSIFIED ACCORDING TO RACE

	GROUP			
	Black (N=40)		White (N=41)	
Categories of Social Experience	Mean	SD	Mean	SD
Environment	25.09	4.36	33.13	3.16
Role - Taking Opportunities	5.85	2.42	5.51	1.73
Racial Integration	2.20	1.88	3.42	1.16
Leisure Activities	10.90	5.00	15.97	4.82
Social Experience Index	11.01	2.02	14.51	1.88

TABLE 16: SOCIAL EXPERIENCES: UNIVARIATE F-TESTS WITH (1,79) D.F.

(N=81)

Dependant variable	Sum of Squares	Mean Square	F-Ratio	P
Environment	1307.86	1307.86	90.62	0.000
Error	1140.10	14.43		
Role - Taking Opportunities	2.31	2.31	0.52	0.472
Error	349.34	4.42		
Racial Integration	29.87	29.87	12.27	0.001
Error	192.35	2.44		
Leisure Activities	521.41	521.41	21.61	0.000
Error	1906.46	24.13		
Social Experience Index	247.62	247.62	65.07	0.000
Error	300.62	3.81		

The results revealed that blacks and whites differed significantly in their scores on environment, $F(1,79) = 90.26$, $P < 0.000$, racial integration, $F(1,79) = 12.27$, $P < 0.001$ and leisure activities, $F(1,79) = 21.61$, $P < 0.000$. Whites had significantly higher scores than blacks on these categories (see table 15). No significant differences between blacks and whites were found on the category of role - taking opportunities. Significant differences were also found on the social experience index, $F(1,79) = 65.07$, $P < 0.000$, with whites having higher social experience index scores than blacks.

b.T - tests

Scores were obtained for four social experience categories from the diary, namely, family cohesion, racial integration, leisure activities and role - taking opportunities. T - tests were thereafter computed on these scores (see Appendix M). The statistical package used was Systat MGLH 5.0 edition. The mean T - scores for blacks and whites on each of these categories, and their significance levels are presented in table 17.

As reflected in table 17, the results revealed significant differences between blacks and whites on the categories of leisure activities, and role - taking opportunities. Whites had significantly higher scores for leisure activities $t = -2.94$, $p < 0.01$ than blacks (as an aside it should be noted that this finding is consistent with the finding from the

TABLE 17:T - TESTS FOR BLACKS AND WHITES ON FOUR CATEGORIES OF SOCIAL EXPERIENCE

Race	No. of Cases	Mean	Standard Deviation	F-Value	Z-Tail Prob.	T-Value	Degrees of Freedom	2-Tail Prob.
<u>Role taking opportunities</u>								
Black	40	10.98	8.65	3.82	0.000	3.85	79	0.000
White	41	5.05	4.67					
<u>Racial integration</u>								
Black	40	3.83	4.19	-1.72	0.090	-1.71	79	0.091
White	41	5.81	6.03					
<u>Leisure activities</u>								
Black	40	23.05	10.70	-2.94	0.004	-2.94	79	0.004
White	41	30.07	10.79					
<u>Family cohesion</u>								
Black	40	15.85	7.49	1.13	0.262	1.13	79	0.263
White	41	13.73	9.30					

statistical analyses of the data from the biographical inventory and social experience questionnaire, discussed earlier). Furthermore, blacks scored significantly higher on the category of role - taking opportunities than whites, $t = 3.85$, $p < 0.000$. This finding is not consistent with the findings reported earlier from the biographical inventory and social experience questionnaire, which revealed no significant differences between blacks and whites in terms of role - taking opportunities. No significant differences were found between blacks and whites on the category of racial integra-

tion, $t = -1.71$, $p > 0.05$. This is not consistent with the findings on the biographical inventory which reveal that whites had significantly higher scores. On the category of family cohesion, no significant differences were found between blacks and whites, $t = 1.13$, $p > 0.05$.

In summary, the findings on the social experience measures suggest that on the categories of environment and leisure activities whites had significantly higher scores than blacks. Blacks however had significantly more role - taking opportunities when this was measured by means of the diaries. Whites had significantly higher scores on racial integration when this was measured by means of the social experience questionnaire. Blacks and whites did not differ significantly in their family cohesion scores.

5.3. Relationship between Age, Social Experience and Moral Reasoning

Pearson Product - Moment correlations were computed for the sample as a whole, and for blacks and whites separately, to determine the relationship between social experience and level of moral reasoning. The statistical package used was Systat MGLH 5.0 edition.

The social experience variables were: level of education, socio - economic status and social index. Age was also included as a variable because of the findings of previous research (e.g., Colby et al., 1983) that there is a high correlation between age and level of moral reasoning. The

variable used for level of moral reasoning was the WAS. The correlation matrices are presented in table 18.

Table 18 indicates that for the total sample there were significant relationships between WAS and age ($r = 0.76$) and WAS and education ($r = 0.74$). Interestingly, in the analyses according to race, the values of the correlation coefficients between WAS and age and between WAS and education while also significant were much higher for whites than for blacks.

In order to assess the predictive impact of the IV's (education, socio - economic status, social index and age) on level of moral reasoning a stepwise multiple regression procedure was performed next. Three analyses were undertaken, viz., (1) for the sample as a whole (2) for blacks only (3) for whites only. The statistical package used was SAS Reg 6.03 edition. Because of the high intercorrelation between age and education, only one of these IV's was entered into the regression analysis. Selection of which variable to be entered was based upon which variable had the highest correlation with WAS. This procedure is consistent with that used by Walker (1986). For the sample as a whole and for whites age was entered into the regression analysis, whereas for blacks education was entered into the regression analysis.

The stepwise procedure is a procedure in which variables are successively entered into the equation until a point is reached where further addition of variables does not provide additional useful information. Entry of variables is based

TABLE 18: PEARSON CORRELATION MATRIX FOR WAS, AGE AND SOCIAL EXPERIENCE

<u>Total Sample (N=81)</u>	
<u>Variables</u>	<u>r-value</u>
Socioeconomic Status	-0.11
Social Index	0.07
Age	0.76**
Education	0.74**
<u>Blacks (N=40)</u>	
<u>Variables</u>	<u>r-value</u>
Socioeconomic Status	-0.22
Social Index	-0.13
Age	0.66**
Education	0.69**
<u>Whites (N=41)</u>	
<u>Variables</u>	<u>r-value</u>
Socioeconomic Status	-0.24
Social Index	-0.02
Age	0.85**
Education	0.82**

** = P < 0.01

upon statistical and not theoretical criteria. At each entry step the variable which contributes most to R^2 is entered. This procedure continues and results in the formation of a set of IV's that are effective predictors of the DV. This technique allows one to determine which combination of IV's best predict the DV (Tabachnick and Fidell, 1983).

A summary of the stepwise procedure for level of moral reasoning for the sample as a whole, and for blacks and whites separately appears in table 19.

TABLE 19: STEPWISE MULTIPLE REGRESSION: AGE AND SOCIAL EXPERIENCE VARIABLES AS PREDICTORS OF MORAL DEVELOPMENT

TOTAL SAMPLE (N = 81)

STEP	VARIABLE ENTERED	Partial R**2	Model R**2	F	Prob.>F
1	Age	0.57	0.57	105.13	0.0001
2	Social Index	0.02	0.59	3.89	0.05
Blacks (N = 40)					
1	Education	0.55	0.55	94.82	0.0001
2	Social Index	0.01	0.56	2.35	0.13
Whites (N = 41)					
1	Age	0.57	0.57	105.13	0.0001
2	Social Index	0.02	0.59	3.89	0.05

The unique contribution of IV's is given by the partial R**2 values. As reflected in table 19, for the sample as a whole and for whites, the variable which had the highest unique variance was age which accounted for 57 percent of the variance (P < 0.0001):

Social index was the only other variable which contributed significantly to the R value, and this accounted for two percent of the variance (P < 0.05). For blacks, the variable which had the highest unique variance was education which accounted for 55 percent of the variance (P < 0.0001). Thus, for the total sample and for whites, age and social

index were found to be the best predictors of level of moral reasoning. For blacks, the best predictor of level of moral reasoning was found to be education.

To investigate the relationship between social experience and moral orientations, Pearson Product - Moment correlations were computed for the sample as a whole, and for blacks and whites separately. The statistical package used was Systat MGLH 5.0 edition. The correlation matrix for moral orientations is presented in table 20.

As reflected in table 20, age and education were the only variables significantly correlated with the four types of moral orientations. Table 20 reveals that for the total sample as well as for blacks and whites when considered separately, there is a significant negative correlation between age and the normative orientation. There is also a negative correlation between age and the utilitarian orientation for whites and for the total sample. There is a positive correlation between age and the use of the perfectionist and fairness orientations for whites and for the total sample. These results support the earlier findings (see section 5.1.3. of this chapter) that younger children use more normative and utilitarian orientations than the perfectionist and fairness orientations. Level of education also appears to be related to the orientations. As indicated in table 20, the results suggest that for total sample and for whites the

**TABLE 20: PEARSON CORRELATION MATRIX FOR MORAL ORIENTATIONS,
AGE AND SOCIAL EXPERIENCE VARIABLES**

<u>Variables</u>	<u>Total Sample (N=81)</u>			
	<u>r-Values</u>			
	F	N	P	U
Socioeconomic Status	-0.08	0.10	-0.03	-0.01
Social Index	0.00	-0.06	-0.01	0.07
Age	0.48**	-0.45**	0.38**	-0.28*
Education	0.39**	-0.45**	0.38**	-0.22*
	<u>Blacks (N=40)</u>			
Socioeconomic Status	-0.06	0.07	0.02	-0.05
Social Index	0.07	-0.08	-0.19	0.21
Age	0.25	-0.48**	0.11	0.24
Education	0.22	-0.49**	0.16	0.23
	<u>Whites (N=41)</u>			
Socioeconomic Status	-0.19	0.24	-0.19	0.12
Social Index	-0.14	0.01	-0.00	0.11
Age	0.65**	-0.44**	0.57**	-0.69**
Education	0.54**	-0.40**	0.58**	-0.64**

- * P < 0.05
- ** P < 0.01
- F = Fairness
- N = Normative
- P = Perfectionist
- U = Utilitarian

higher the educational level the less the reliance on the normative and utilitarian orientations, with a corresponding greater reliance on the perfectionist and fairness orientation. This conclusion does not however apply to blacks.

To examine the relationship between social experience and moral type, point - biserial correlations were computed manually for the sample as a whole, and for blacks and whites separately (see Appendix P). The correlation matrix is presented in table 21. According to Hinkle, Wiersma and Jurs (1988), "the point - biserial correlation coefficient is a special case of the Pearson r , in which one variable is a quantitative variable... and the other is a dichotomous variable" (p.527) In the computations, for the dichotomous variables the assignment of values of 1 and 0 is strictly arbitrary, and the sign of r_{pb} depends on the meaning of that assignment (ibid.). In the present study to determine the relationship between social experience and moral type, moral type B was coded as 1 and moral type A as 0. Thus, if the r_{pb} value is positive, then the interpretation is that participants classified as type B tend to score higher or be at higher levels on the social experiential variables than those participants classified as type A.

Table 21 reveals that for the sample as a whole, as well as for blacks and whites separately the only variables correlated with moral type were age and education. Participants

TABLE 21: POINT - BISERIAL CORRELATION MATRIX FOR MORAL TYPE, AGE AND SOCIAL EXPERIENCE VARIABLES

<u>Total Sample (N=81)</u>	
<u>Variables</u>	<u>r_{pb} value</u>
Socioeconomic Status	-0.14
Social Index	0.07
Age	0.44**
Education	0.40**
<u>Blacks (N=40)</u>	
<u>Variables</u>	<u>r_{pb} value</u>
Socioeconomic Status	-0.14
Social Index	0.29
Age	0.33*
Education	0.38*
<u>Whites (N=41)</u>	
<u>Variables</u>	<u>r_{pb} value</u>
Socioeconomic Status	-0.15
Social Index	-0.11
Age	0.46**
Education	0.43**

* = $p < 0.05$

** = $p < 0.01$

classified as type B tend to be older and at higher levels of education.

In summary, the results reveal that consistently moral reasoning is related to age and level of education. For blacks, the best predictor of level of moral reasoning was found to be education. For whites, the best predictors of level of moral reasoning were found to be age and social index.

5.4. Summary

Some of the major findings which emerged from this study, are as follows:

1. There was a stage difference in moral reasoning between blacks and whites but only in the 19 - 28 age group where whites reasoned at a higher level than blacks.
2. Blacks did not score high on the law issue and they showed less age variability on the contract issue than whites.
3. On the comparison orientations of utilitarianism and fairness blacks at all ages tended to orient more towards utilitarianism whereas for whites this appeared to be the case only for the two younger age groups.
4. Blacks and whites did not differ in the extent to which they made autonomous moral judgements.
5. Blacks and whites had different social experiences. Blacks came from more disadvantaged environments, they were expected to carry out more household chores which impacted on their time and opportunities for leisure activities and they interacted less with members of other racial groups.
6. The two variables that were consistently related to moral reasoning were age and education.

7. Education was a better predictor of moral reasoning for blacks, and age was a better predictor for whites.

8. The age groups showed differences in their moral reasoning. Older children were at higher levels of moral development, they used less of the normative and utilitarian orientations than younger children, and made significantly more autonomous judgements than younger children.

9. The majority of Kohlberg's stages were evidenced in this sample, and there was a strong relationship between age and level of moral development.

CHAPTER 6

DISCUSSION AND CONCLUSION

This chapter consists of a discussion of the results presented in chapter 5. In the discussion an attempt is made to integrate the findings of the present study with that of past research. Furthermore, the discussion explores a number of issues which are particularly relevant to the South African context, issues which have largely been ignored by previous studies.

6.1.Moral Reasoning

The aim of this study was to examine the relationship between social experience and moral reasoning and to test two aspects of Kohlberg's universality claims. Past research on moral reasoning and social experiences has been conducted in research contexts that are very different from that of the South African context, and thus this study provides some new insights in that it looks at the impact that living in a racially divided society has on moral reasoning.

6.1.1.Level of Moral Development.

6.1.1.1. Race Differences

The findings of the present study indicate that with the

exception of the 19 - 28 age group, there were no significant differences in level of moral reasoning between blacks and whites. Blacks in the 19-28 age group reasoned primarily at stage three level of moral reasoning, whereas whites in the same age group reasoned primarily at stage 3/4. At stage 3, moral justifications centre around the need to be viewed as a good person, and being good means living up to the expectations of other people. There is a desire to obey rules and authority which are consistent with good behaviour. Alternatively, the breaking of rules and laws is justified if it is in keeping with the expectations of other people. There is also acceptance of the "Golden Rule," putting oneself in the other persons shoes (Colby et al., 1987a). This stage of moral reasoning is clearly illustrated in the following two responses to the question, "In general, should people try to do everything they can to obey the law?"

"Yes, because if there is no need for doing illegal things, wrong for the person to break the law just for nothing, because you are not doing what is expected of you, and you wouldn't like it if someone robbed you" (subject 62, black, 19 years old).

"Yes - No,... people try not to go against the law - obey the law, but people expect you to, for e.g., save

the life of your wife when laws don't help and you must listen to them."

(subject 70, black, 19 years old).

In the above two responses, it is apparent that although the subjects differed in their decision of whether or not to steal the drug, the underlying reasoning for their decision was the same (viz., doing what is expected of you).

Whites in the 19-28 age group reasoned primarily at the transitional stage 3/4 level of moral development. At this transitional stage, there is some recognition that what is right may not simply be what is expected of you, but also what ensures the continued existence of society. In other words, moral justifications at this stage reflect signs of a differentiation between the viewpoint of society and that based on individual personal motives (ibid.). This can be seen in the following response to the same question on the Heinz dilemma.

"Yes, because people are expected to be law abiding, and law is there to help society run smoothly and give everyone a fair chance in the world" (subject 78, white, 19 years old).

Past research has suggested a number of factors which may be significant influences on the level of moral develop-

ment of various groups within a particular society. Some of the more widely accepted influences include: level of cognitive development (e.g., Walker, 1980; Walker, 1986), various social experiences (e.g., Piaget, 1932; Kohlberg, 1969; Yussen, 1976; Walker, 1986) age (e.g., Nissan and Kohlberg, 1982), complexity of society (e.g., Edwards, 1975), and cultural variability in terms of relevance of the dilemmas and issues (e.g., Snarey, Reimer and Kohlberg, 1984; Tietjen and Walker, 1985).

In this study, level of cognitive development does not appear to be a possible explanation for the differences in level of moral development found between blacks and whites in the 19 - 28 age group, for most of the participants in this age group were first year university students and in this regard were assumed to be of average or above average intelligence.

Sufficient research exists (e.g., Wilson and Ramphela, 1989) to suggest that blacks and whites in South Africa have very different social experiences. These findings, coupled with the findings of past research that social experiences may influence level of moral reasoning, raise the possibility that the differences found in this study between blacks and whites in the 19-28 age group in their level of moral development may be explained by different social experiences. To examine this as a possible expla-

nation, differences in social experience were investigated for a limited number of social experiential variables, namely, level of education, socio - economic status, environment, role - taking opportunities, racial integration, leisure activities, family cohesion, and social index (composite of scores on environment, role - taking opportunities, racial integration and leisure activities).

With regard to the above, the results revealed that blacks and whites differed significantly in socio - economic status, environment, role - taking opportunities, racial integration, leisure activities, and on the composite measure of social index. In general, the results revealed that blacks were of middle socio - economic status and whites were of upper socio - economic status, that blacks came from more disadvantaged environments, that blacks had more chores to do each day, that blacks interacted less with members of other racial groups, and that blacks participated in fewer leisure activities and had less time for leisure than whites.

These findings are not unexpected given the social realities of the South African context and the findings and suggestions of past researchers (e.g., Cock, Emdon, Klugman, 1986; Chikane, 1986; Schlemmer, 1990; Lotter and Ndabandaba, 1990). In a context in which blacks

have limited opportunities, limited access to resources, are denied fundamental human liberties, and in which they are forced to reside in designated residential areas which often lack basic amenities, it is not surprising that they should score lower on the environmental category, and should have fewer opportunities for leisure, and that greater demands should be placed on them in terms of their responsibilities within the family.

The striking differences between blacks and whites in terms of their social experiences was clearly evident on issues related to the environment, where a number of interesting findings emerged. On the question, "Do you like the neighbourhood that you live in?," the typical black response was,

"No, not that much because there is so much violence. Children are very naughty" (subject 23, age 13 years).

On the question,

"Do you regard your neighbourhood as a safe and secure environment," the same subject's response was,

"Not sure, because people are often dead or kidnapped and police are not there immediately"

Even when black children regarded their neighbourhood as safe and secure, their justifications were primarily based on the absence of violence.

"Yes, because there is no violence near where I live" (subject 1, age 12 years).

White children, in contrast, on the above two questions tended to answer in the affirmative and their justifications tended to centre on the aesthetic qualities of the neighbourhood. Although they also tended to show some preoccupation with safety, this was more in terms of preventing burglaries than violence and killings. This can be seen in the responses below. "Yes, because it is central to most things I like to do and see"

"Yes, because we are surrounded by simplexes and duplexes and no break-ins" (subject 33, age 14 years)

"Yes, because it is near to a park and swimming pool"

"Yes, because it is near a police station (subject 15, age 11 years)

In general, while the social experience measures in this study were limited, the results do suggest that whites have a significantly better social experience than blacks. A relevant question to ask is whether it is this significant difference in social experience, and indeed significantly better social experience for whites that can account for the present findings that whites in the 19 - 28 age group had significantly higher levels of moral reasoning than the 19-28 year old blacks.

To examine the extent to which social experiences (in this instance, socio - economic status, social index, and education) were related to level of moral reasoning,

Pearson Product-moment correlations were conducted for the sample as a whole and for the race groups separately (see table 18). The results of the correlational analyses revealed that for the sample as a whole and for the race groups separately, the only social experience variable that was significantly correlated with level of moral reasoning was that of level of education. There was a significant positive correlation between education and WAS. The finding that education is positively correlated with level of moral reasoning is consistent with past research (e.g., Mc George, 1976; Rest and Thoma, 1985) which has found that as educational levels increase so too does level of moral reasoning.

That no significant relationship was found between socio-economic status and WAS, does not support the findings of past researchers. Past research (e.g., Kohn, 1963; Colby, Kohlberg, Gibbs and Lieberman, 1983) has found socio-economic status to be an important influence on level of moral reasoning. However, in this regard, it must be borne in mind that the findings of past research were predicated on comparisons between working-class and middle-class subjects. The participants in this study were of middle and upper socio-economic status, and it may be argued that there was not sufficient variance between the groups and within the groups so as to show this relationship. Thus, the failure to find a

significant correlation between socio - economic status and level of moral reasoning may simply be an artefact of the type of sample used in this study, and one should be cautious in suggesting that these findings indicate no significant relationship between socio - economic status and level of moral reasoning.

The findings on the correlations also indicated no significant relationship between social index (the composite measure of social experience) and level of moral reasoning. This finding is surprising given the earlier findings concerning the differences between blacks and whites in their social experiences, as well as past research which has consistently found a significant relationship between social experience and moral development. As to why no significant correlations were found in this study for WAS and social index, it is not entirely clear. Intuitively it might be suggested that a possible explanation for this concerns the manner in which social experience was measured, and indeed what social experiential variables were measured. In many respects this study looked at uncharted territory. There were no previous studies on this topic within the South African context by which to go by. Moreover, one of the few studies which attempted to look at the influence of a number of social experiential variables on moral reasoning, namely the study by Walker (1986) was conducted only

on adults, and thus the social experiential categories which he identified and the manner in which he measured them had to be modified in this study so as to make them relevant to children. Also, to the best of my knowledge, the use of the diary within the South African context as a means of documenting social experiences is a relatively novel approach. Given these difficulties and the novelty of these measures, it may be anticipated that these measures, may be problematic and further research is necessary that will consider the appropriateness and usefulness of these measures of social experience.

In terms of which social experiential categories were measured, it may very well be the case that the categories used in this study do not adequately define or sample what are the more significant social experiences of the participants in this study. The categories utilized in this study were largely based on past research, but given the peculiarities of the South African context, these may not be the most important categories to focus on. Whether in fact this is a valid explanation for the failure to find a significant relationship between social index and level of moral reasoning is clearly speculative, but it does suggest the need for further research in the present context that will be particularly wary of imposing social experiential categories which have been

based upon research in contexts that are very different from that of the South African context.

Finally, social index as the composite measure of social experience was based purely upon present social experiences. In this regard it is recognised that this measure was limited, and that a more comprehensive measure of social experience would be one which considers both past and present social experiences. Future research which considers cumulative social experiences may reveal a relationship between level of moral development and social experiences.

In summary, the findings on social experience suggest that blacks and whites have very different social experiences. Whites were found to have a significantly more advantaged social experience than blacks. In terms of the relationship between social experience and moral reasoning it was found that only level of education was significantly related to level of moral reasoning. It was suggested that the failure of the other social experiential variables (viz., SES and SI) to be significantly related to level of moral reasoning may be reflective of limitations associated with measurement and types of social experience measures. The question however which remains unanswered is that if blacks and whites have very different social experiences, and if these different social experiences have an impact on level of moral

reasoning, then why were significant differences in level of moral reasoning only evidenced in the 19 - 28 age group? Since a possible explanation for this has some connection with the discussion of age, the attempt to provide an answer to this question will be deferred until the discussion of age and level of moral reasoning.

In this study, age cannot be an explanation for the differences found in level of moral reasoning between the 19 - 28 year old blacks and whites, because they were all from the same age group and were primarily first year university students, and in this regard were all approximately the same age. Although age differences cannot explain the differences in level of moral reasoning between the 19 - 28 year old blacks and whites, the results of the correlational analyses (see table 18) revealed that age is significantly positively correlated with WAS. Interestingly, when one looks at age and education, on the separate correlations for blacks and whites, the value of the correlation coefficients for age and education for whites were much higher than for blacks. This suggests that there may be a stronger relationship between level of moral development and age, and level of moral development and education for whites than for blacks.

Overall, the results of the correlational analyses revealed that the only variables that were related to

level of moral development were age and education. But what of the predictive impact of the variables? To examine the predictive impact of social experience and age on level of moral reasoning, regression analyses were conducted for the sample as a whole and for the race groups separately.

The results of the regression analyses (see table 19) revealed that for the sample as a whole and for whites, age and social index were the best predictors of moral development. Age accounted for 57 percent of the variance in WAS, while social index accounted for a further two percent of the variance in WAS. For blacks, level of education was the best predictor of level of moral development, and it explained 55 percent of the variance in WAS. These findings as regards the high predictive impact of age and level of education are consistent with past research (e.g., Walker, 1986; Colby et al., 1983). Higher educational levels may facilitate the encountering of broader social, political and moral issues which may be significant for the higher stage development of morality (Walker, 1986). Age may facilitate moral development because older individuals have higher cognitive levels which are necessary for the development of morality. As regards age and level of education, it is recognized in this study that the older participants were necessarily also those individuals who had higher levels of educa-

tion, and thus there is a high intercorrelation between age and education, and it is important to be cognizant of this inter - relationship.

The finding that social index was a significant predictor of level of moral development for the sample as a whole (both blacks and whites) and for whites but not for blacks is particularly interesting, because it may provide some support for the argument suggested earlier concerning the appropriateness of the social experience categories used in this study. It may be conjectured that white children in South Africa have similar social experiences, in terms of how they were measured in this study, to children in modern western countries from which these social experiential categories were drawn. Thus social index may predict level of moral development for whites because the categories comprising social index may be relevant social experiences for whites. Similarly, it might be argued that social index does not predict level of moral development for blacks because these are not the most significant social experiences for blacks given the nature of the South African context.

If it is accepted that aside from level of education, the failure to find a significant relationship between social experience and level of moral reasoning, and the failure of social experiences to strongly predict level of moral reasoning for blacks, is more reflective of problems of

measurement and/or the failure to tap the most significant social experiences particularly for blacks, and that different social experiences may still be a valid explanation, then the question raised earlier needs to be addressed, namely, of why were differences in level of moral reasoning only seen between 19-28 year old blacks and whites?

Several possible explanations come to mind. First, it might be suggested that the full ramifications of one's social experience only come to bear on the moral reasoning of adults or individuals who are about to enter the stage of participation in the wider socio, economic and political arena. Second, if one considers that the majority of the 19 - 28 year olds were university students, then it might be argued that it is something about university education and the university environment which is impacting on level of moral reasoning. At university, students are confronted with an environment in which there is great heterogeneity in terms of people, ideologies and politics. There is an openness towards significant social issues, thinking critically is emphasized, and often the university experience either through curriculum or through interaction with others, represents the first time that the individual is provided with an understanding of the mechanisms used by the state and manner in which the state has attempted to justify racial

inequalities. Such an environment is likely to induce reflection on moral issues. Such a reflection may be very different for black and white students. Although both groups may show a concern for justice, blacks may be increasingly cognizant of the injustices shown towards them as a group of black people. Thus their concern for justice may be more in terms of maximizing the good consequences for their group. This would be consistent with stage three level of moral reasoning, and was the stage at which many of the blacks in this age group were reasoning. White students in contrast, faced with a situation in which many of the stereotypes that they held are questioned, may think about justice in terms of modifying the existing order. This is consistent with stage 3/4 reasoning, and was the stage used primarily by whites in this age group.

Clearly the above two arguments are only two possible explanations, and further research is required to achieve clarity on this issue.

Studies (e.g., Edwards, 1975) which have identified societal complexity as an issue in explaining differential development of morality, have suggested that stage of moral development may represent "adaptive structures" to various life conditions. These studies have found that stage three level of moral reasoning is usually the highest level attained by individuals in tribal socie-

ties, while individuals in urban societies show development to stage four and beyond. It is suggested that this is the case because stage three reasoning is consistent with the dictates of a tribal society while stage four reasoning is consistent with a more complex urban society. Clearly in this study societal complexity cannot be a possible explanation, given that all the participants were from urban areas but nevertheless there may be some validity in the underlying notion of stages representing adaptive structures to different life conditions. As pointed out earlier, blacks in the 19-28 age group reasoned primarily at stage three while whites reasoned primarily at stage 3/4. The relevant question to ask, is whether the differences in level of moral reasoning between blacks and whites at this age group reflect adaptations to different life conditions?

This question can perhaps best be considered by comparing the black and white participants responses to the questions in the MJT. For instance on the Heinz dilemma, to the question of "Should Heinz steal the drug?" the typical reasons given by blacks who answered yes to this question were:

"because wife is dying and needs it to save her life" (subject 71 age 19) "because he has no choice, his wife will die without it" (subject 67 age 21) "because he cannot afford it" (subject 69 age 19) and "Yes, if not going to get caught and nobody knew" (subject 70 age 19).

In all of these responses primary emphasis is on prosocial motives and immediate consequences. There is no recourse made to the more general implications that stealing may have for the law and society and the importance of the value of life. In stark contrast to this, the responses of the white participants to this question almost all show signs of a more generalized perspective. This can be seen in the following responses: "because of loyalty to his family family comes before what man decides as rules ..." (subject 74 age 19) "otherwise wife will die, and a life is worth saving" (subject 73 age 19)," ... stealing to save a life is the highest thing to save" (subject 81 age 24).

It may be argued that the blacks in this age group did not show signs of this more generalized perspective because the nature of their life conditions may not be facilitative of the more generalized perspective. Blacks, denied the basic human liberties, and faced with a social reality which is inherently unjust may be more oriented towards basic strategies for coping both psychologically and economically with such a system, and this may be reflected in their moral reasoning. A word of caution here, is that what is being put forward is not the idea that blacks are not concerned with more generalized concepts of justice, liberty, equality and other moral values. Indeed the history of the "black struggle" in South Africa and the rejection of the status quo bears

testimony to these more generalized moral concerns. What is being suggested, is that the blacks in this age group, when justifying their moral choices may have been more oriented towards everyday practical considerations, and the everyday practical considerations are a poorer environment than whites where killing and violence is an almost everyday occurrence, less leisure activities and access to necessary equipment for these activities, and where questions of unaffordability of leisure activities are a distinct reality.

Whites in this age group on the other hand, faced with a social reality in which their basic human rights and liberties are guaranteed by the law, and in which poverty, human suffering and violence are far removed, can perhaps "afford" to be oriented to more general concerns when justifying moral choices.

If this argument is accepted, then the question arises of why differences in level of moral reasoning were only found between blacks and whites in the 19 - 28 year old age group? As was suggested earlier, it may be the case that only at this age group do children fully comprehend the ramifications of their social experiences, and adapt their moral reasoning accordingly.

A final explanation that may be entertained for the differences in level of moral reasoning between blacks and whites in the 19-28 age group concerns cultural

variability in terms of the dilemmas, issues and types of moral reasoning. It has been suggested that individuals are more likely to score higher on dilemmas and moral issues with which they are more familiar. Thus, it might be the case that the whites in this age group were more familiar with these dilemmas and issues or that the dilemmas and issues were more relevant to 19 - 28 year old whites than to the 19 - 28 year old blacks. Since such an explanation is considered in the analyses that follow (see sections 6.1.2; 6.1.3), it shall not be considered here.

6.1.1.2. Age Differences

The findings of this study also revealed significant race x age interaction effects, suggesting that there were significant differences between the age groups in level of moral reasoning, but that where these differences were to be found varied amongst the two race groups. Although the pattern for blacks and whites in terms of level of moral reasoning were similar in that there were significant differences between the age groups in their moral reasoning, with older age groups reasoning more at higher levels of moral development, this was not the case for blacks when comparing the 10 - 12 and 13 - 15 age groups and the 16 - 18 and 19 - 28 age groups, and for whites when comparing the 13 - 15 and 16 - 18 age groups. On these comparison age groups, no significant

differences in level of moral reasoning were found (see table 4).

Age was identified as a variable in this study on the basis of the cognitive assumption of the relationship between age and stage of cognitive development and level of moral reasoning. Furthermore, the age groups used in this study were selected on the basis of past research (e.g., Snarey, Reimer and Kohlberg, 1984) which has found that these are appropriate age groups in which to consider moral developmental differences. Thus, all things being equal it would have been expected that there should have been significant differences in level of moral reasoning across all age groups. A plausible explanation why such differences were not noted for blacks between the 10 - 12 and 13 - 15 age groups and between the 16 - 18 and 19 - 28 age groups may lie in the nature of their educational experience. It is commonly assumed that older children will have higher levels of education than younger children, and that level of education is a significant influence on level of moral reasoning. There exists substantial literature which suggests that one cannot make such an assumption within the South African context, when looking at educational levels of black children. For instance, Gordon (1987) has pointed out that, "more than fifty percent of black children living in rural areas still do not get to school" (p.6) and moreover a large number of those that do enter school do

so when they are older, they also remain there for less time and absenteeism is the norm. This is necessitated by poor socio - economic conditions in which children, "filled the gap created by the poor social and health infrastructure, including lack of preschool facilities" (ibid., p.9). This pattern is not restricted to rural areas, but is also evident in urban areas (Wilson and Ramphele, 1989).

From the above, it is clear that level of education is very much a social experience, and indeed the regression analyses revealed that for blacks, level of education is a very significant social experiential influence on moral development. Given that this is the case, it is possible that the failure to find significant differences for blacks between the 10 - 12 and 13 - 15 age groups and 16 - 18 and 19 - 28 age groups, may be due to the fact that although these children are of different ages, they do not have significantly different educational levels.

To investigate this as a possible explanation post hoc within group T-tests were conducted for these comparison groups to determine whether there were significant differences in age and level of education. These tests were carried out for both blacks and whites (see Appendix Q). If educational level is a valid explanation, then it would be anticipated that for blacks there should be significant age differences but no significant differences in level of education between these age groups, and

for whites significant differences should be found for both age and level of education. No evidence for this argument was found. For blacks, the comparisons between the 10 - 12 and 13 - 15 age groups revealed significant age differences $F(1,18) = -5.692, P < 0.000$, and significant differences in level of education, $F(1,18) = -2.714, P < 0.05$. Similarly, for the comparison between the 16 - 18 and 19 - 28 age groups significant age differences $F(1,18) = -6.183, P < 0.000$ and significant differences in level of education, $F(1,18) = -2.635, P < 0,05$ were found. For whites, in the 10 - 12 vs 13 - 15 age groups significant differences were found in both level of education, $F(1,19) = -5.851, P < 0.000$, and age $F(1,19) = -10.127, P < 0.000$. In the 16 - 18 vs 19 - 28 comparison age groups, significant age differences were found $F(1,18) = -7.006, P < 0.000$, as well as significant differences in level of education $F(1,19) = -10,56, P < 0,000$.

Although these results do not provide support for the previous argument, it must be borne in mind that the blacks in this study were of middle socio - economic status, and in this regard are not reflective of the social realities faced by the majority of blacks in South Africa viz., poverty and limited access to education. One might anticipate that a more representative sample of black children from lower socio - economic background, would provide support for the idea that level of educa-

tion may be the more appropriate yardstick by which to determine level of moral development. It should be pointed out, that what is being suggested is not that age may be unimportant, clearly age is important, but that within the South African context where one's access to education is often determined by one's racial grouping, one should not simply assume that older black children will necessarily be at higher levels of education. Given that the previous argument was not found to be valid for the present findings, the question remains unanswered of why were no significant differences found for the blacks between the 10 - 12 and 13 - 15 age groups and 16 - 18 and 19 - 28 age groups. As to why this was the case it is not entirely clear and further research is required to examine this issue.

As for a possible reason why whites in the comparison age groups 13 - 15 vs 16 - 18 showed no significant differences in level of moral reasoning, it is not entirely clear. It may well be that this is simply an artifact of the present sample and requires further investigation.

Kohlberg's universality claims

The results of this study provide tentative support for two aspects of Kohlberg's universality claims. The age - stage relationship aspect of Kohlberg's universality claims is supported by the finding that as age increases so too does level of moral development (see table 5). In

this regard, the point raised above should be borne in mind. That is, the age - stage relationship may be more valid for whites than for blacks because age and education are interrelated, and black children of the same age as white children because of the social reality in South Africa may not necessarily be at the same educational level.

Limited support for the claim that all his stages should be evident, is provided by the finding that aside from stage one and four, all of the other stages were evident in this sample. That stage one was not evident in the sample, is consistent with other studies (e.g., Snarey et al., 1984) which have utilized similar age groups, and may suggest the need to include younger participants. Although no stage four reasoning was evident in this sample, the fact that there were signs of postconventional reasoning suggests that stage four reasoning may exist within the present research context but a broader more representative sample may be needed before stage four reasoning may be evident.

6.1.2.Moral Issues

The level of moral reasoning for the different race groups, namely blacks and whites was examined separately for the issues of life, law, morality and conscience, punishment; contract, and authority, on the basis of past suggestions as regards cultural variability on these

issues. It has been suggested that the moral dilemmas and moral issues may not be equally relevant to individuals from different social backgrounds, and that individuals may achieve lower moral reasoning scores on issues which are less relevant or with which they are less familiar (Nissan and Kohlberg, 1982). Age differences in level of moral reasoning on each of these issues were also considered, because if the stages of moral reasoning are developmental stages, then age developmental trends should be evident in all moral issues.

The findings of the present study indicate that in most instances older children reason at higher levels on the six issues than younger children. There appears to be a clear developmental trend toward higher levels of moral reasoning with increasing age, on each of the moral issues. These findings are consistent with suggestions and findings of past researchers (e.g., Nissan and Kohlberg, 1982; Snarey, 1985), that there is a relationship between age and level of moral reasoning.

The results of this study also revealed that there were significant differences between the races on the law issue, and that there was a significant age x race interaction effect on the contract issue. Whites reasoned at higher levels than blacks on the law issue, and showed more significant age differences on the contract issue than blacks.

These findings may be reflective of different life conditions and cultural variability between blacks and whites.

It may be speculated that blacks scored significantly lower on the law issue because of their social circumstances in which, historically, the law has always been seen by blacks as unjust. Under these circumstances it might be argued that the black participants in this research when justifying their moral responses, may have done so with the perception of the law as being a symbol of apartheid and being responsible for the maintenance of apartheid. Given such a perception in which the law is not seen to protect the rights and liberties of black people in South Africa, it might be expected that blacks would score lower on the law issue. For, an essential characteristic of higher stages of moral reasoning on the law issue is among other things, the recognition of the value of the law in preventing the breakdown of the system. Why should blacks be concerned with the value of laws for the maintenance of a social system which is perceived as inherently unjust? Furthermore, in accordance with earlier suggestions (see section 6.1), it may be conjectured that reasoning at higher stages, or reasoning which reflects a more general concern for the value of law, may be most likely to be evidenced amongst individuals whose basic concerns and needs have been met. Given that this is the case, it may be argued that whites reasoned at higher levels on the law issue

because their basic concerns on the law issue, such as their individual protection by the law and guarantee of fundamental rights and liberties have been met by the law. Thus, in a sense, whites can "afford" to move beyond individual concerns for protection, rights and justice to a reflection on, and concern with, the value of law for the maintenance of society and for the welfare of society. Blacks on the other hand, as a group who play no role in the law making process, and who do not have the franchise, and whose typical experience with the law has been one in which the law has been perceived to be unjust and unfair, are likely to have very different concerns to whites when making moral choices regarding the law issue. They are more likely to be oriented towards the immediate consequences of breaking the law. Blacks in a sense cannot "afford" to be concerned with the more general value of the law, for the most pressing concern for many blacks is how to cope and survive in a social system in which their basic rights are not protected, and in which their more common experience with the law has been one of fear of punishment and incarceration, particularly as regards detention without trial.

It is significant that few blacks scored above stage 2 or 2/3 level of moral reasoning on the law issue. At stage 2 level of moral reasoning, rule following is justified to the extent that it serves ones' own needs. This would

appear to suggest some validity to the previous argument, although it is recognized that further research is necessary to validate this argument. This research would need to specifically address the issue of what the law means for blacks and whites, and the significance of this meaning in terms of its influence on moral reasoning.

The findings on the contract issue¹ that significant differences were found for blacks only between the 13 - 15 and 19 - 28 age groups as compared to whites who showed significant differences between the 19 - 28 year olds and all other age groups, appears to suggest that generally blacks unlike whites irrespective of their age, are similar in their reasoning on the contract issue. That is to say that they attach similar importance to the upholding of a promise, and indeed are similar in their justifications for the upholding of a promise. Why should this be the case? It may be suggested that this was the case because the contract issue may be a very relevant and familiar issue for blacks at all ages, and according to past research (e.g., Nissan and Kohlberg, 1982) individuals score high on issues with which they are more familiar. Why should blacks irrespective of their age be more familiar with the contract issue? It might be argued that in black culture,

1. It may be recalled that the contract issue was one of the issues in the father - son dilemma, and it concerns the value of keeping one's word or upholding a promise.

historically, much of the rules and norms for acceptable behaviour, for exchange, and for conflict resolution have been based upon tribal customs, and have been passed down to younger generations from elders and parents. These rules, norms and values are not written institutionalized rules, norms and values but rather are based on common consensus of what is acceptable and unacceptable behaviour. Under these circumstances, great emphasis is placed on the value of a person's word, their promise or contract. Furthermore, it might be argued that given the nature of the South African context in which blacks perceive the law to be unjust, blacks may be less reliant on the law to govern behaviour and protect their rights. Under these circumstances, the contract issue may take on particular value as an "alternative" in terms of regulating exchanges and in conflict resolution. Thus, it is hypothesized that the failure to find consistent significant age differences for blacks on the contract issue may be due to the fact that at a very early age blacks are familiar with this issue and indeed that it is very relevant to them. It may be very relevant to them because historically it is a convention of their culture, and because its value has been necessitated by the social reality of the South African context in which the law is not seen to protect the rights of blacks.

That blacks at all ages may be very similar in their level of moral development and reasoning on the contract issue

can be clearly evidenced in the following responses on the contract issue. On the question, "why should Joe refuse to give his father the money", the typical responses by the black children at various ages were:

"because he worked hard for it, and his father promised him and a father can't break a promise because it's not right - it's like lying" (subject 30, age 13, stage 3).

"because he deserves it because he earned the money for something his father promised and one can't break promises because people rely on you and will get hurt and upset" (subject 47, age 17, stage 3).

"because he worked for it, and Joe's father is not being a good father because promises must be kept because people believe in them, they have faith in them" (subject 47, age 17, stage 3).

"because Joe deserves the money, he worked hard for it, and he only worked hard because of the promise, and his father breaking the promise, breaks the trust in their relationship and sets a bad example" (subject 68, age 19, stage 3).

Furthermore, if one looks at the mean scores on the six issues for blacks per age group, (see table 5) it would appear that consistently the higher means are obtained on the contract and authority issues. Thus, if one accepts

the findings of past research that the more familiar and relevant the issues and indeed dilemmas are to the individual the higher the level of moral reasoning, then it may be concluded that there is tentative support for the notion that the contract issue may be a very familiar and relevant issue for blacks in this study. In this regard it is recognized that the statistical method utilized here does not allow for comparisons across the issues, and further research would do well to utilize methods which are facilitative of across issue comparisons. Researchers might also consider a longitudinal analysis as this may provide better insight into the validity of the suggestion that blacks may show high levels of moral reasoning on the contract issue at a very early age.

6.1.3. Moral orientations

The findings on moral orientations revealed (see figure 1) that younger children tended to use more of the normative and utilitarian orientations and that in the case of older children, there was an increase in the use of the perfectionist and fairness orientations with a corresponding decrease in the use of the normative and utilitarian orientations. In addition, when comparing fairness with utilitarianism, blacks irrespective of their age used more utilitarianism than fairness. Whites in contrast, only used significantly more utilitarianism than fairness in the 10 - 12 and 13 - 15 age groups (see figures 2 and 3).

Research on moral orientations has not been extensive given that it is a relatively new topic in the moral developmental literature (Tietjen and Walker, 1985). Nevertheless, it is a topic of some importance in that it provides an added dimension on moral reasoning. For, by looking at moral orientations it allows one to move beyond a simple analysis of the structure and associated developmental level of moral reasoning, to a consideration of an individual's concerns when justifying moral choices. Given that this is relatively uncharted territory particularly within the South African context, it must be pointed out that much of the hypotheses and conclusions as regards the findings of this study on moral orientations which follow, have necessarily been based upon intuition and as such require further investigation.

To explain the finding that younger children, irrespective of race group use more of the normative and utilitarian orientations as compared to the older children who used more fairness and perfectionism, it is necessary once again to look at what these orientations mean. In the normative orientation, there is a concern for upholding the law at all costs. In the utilitarian orientation there is a concern with maximizing the welfare consequences for the group. In both of these orientations, the moral value of actions appear to be based on the consequences of the actions. In contrast to this, the moral value of actions

for the perfectionist and fairness orientations appear to be more related to the intentions behind these actions. The perfectionist orientation reflects the concern with moving towards peace and balance. The fairness orientation reflects the concern with justice and equality (Colby et al., 1987a).

From the above discussion of the orientations, it would be expected that younger children should orient themselves more with the normative and utilitarian orientations, because these orientations embody a concern with the consequences of actions and as Piaget (1932) and Kohlberg (1969) have suggested, younger children tend to evaluate the "rightness" of actions on the basis of the consequences of these actions and not on the intent behind the actions. Furthermore, concerns about peace, harmony, justice and equality are concerns which one would imagine, require a sense of maturity, an ability to move beyond the confines of the dilemmas, and which reflect a more general interpretation. That this may indeed be the case is perhaps best demonstrated by looking at the elements which comprise these two orientations. Some of the elements in the perfectionist orientation include:

"upholding self-respect; serving social ideal or harmony (and) serving dignity and autonomy, " while in the fairness orientation some of the elements include: "maintaining

equity and procedural fairness (and) maintaining social contract or freely agreeing" (Colby et al., 1987a, p.42). Clearly, for an individual to show such concerns, the individual must at least have some broader understanding and respect for human dignity and personal autonomy and should reflect some understanding that rules and laws are flexible and can be changed to suit special circumstances. Younger children do not have the cognitive maturity to show a concern with the perfectionist and fairness orientations, and thus it is for this reason that it is suggested that the younger children in this study used more of the normative and utilitarian orientations.

Another possible explanation for why younger children used more of the normative and utilitarian orientations relates to different social experiences. It has been suggested that moral orientations, like stage of moral development may be affected by various social experiences (Tietjen and Walker, 1985). If this is indeed the case, then it might be argued that the younger children differed in their use of the moral orientations from the older children because they have different social experiences. Younger children are clearly more preoccupied with rules and authority than older children. They tend to show more unilateral respect for rules and authority, and much of what they regard as acceptable and unacceptable behaviour is judged in terms of the consequences. Younger children also have a more limit-

ed social environment and thus they have less opportunity to encounter and interact with people who hold different values and norms from their own. Thus, younger children have a more limited social experience, and it is this which may account for their use of the normative and utilitarian orientations. Their unilateral respect for rules and authority and lack of impetus to question these rules and authority is consistent with the normative orientation. The focus on the consequence of actions, and maximizing the benefits for oneself and others is consistent with the utilitarian orientation. Older children on the other hand generally have a wider social environment. They interact more with others who have norms and values which are divergent from their own, and thus are afforded the experience of being asked to confront a variety of different perspectives. Moreover, they have more responsibility, and in their interaction with their parents they are less likely to show unquestioning obedience to authority. Indeed, adolescence and early adulthood is a period in which individuals increasingly question established norms, values and authority. This exposure to a variety of different perspectives coupled with a questioning of authority is consistent with the perfectionist and fairness orientations which reflect a concern with individual rights, justice and a social ideal.

Although Colby et al. (1987a) point out that the use of

moral orientations is independent of level of moral reasoning, the findings in this study would appear to suggest that this is not the case. Given the earlier findings in this study that the older children were at higher levels of moral reasoning coupled with the finding that older children used more of the perfectionist and fairness orientations, this would appear to indicate that there is a relationship between level of moral reasoning and types of moral orientations used, and indeed between age and types of moral orientations used.

Further support for the argument that there is a relationship between age and types of moral orientations used is provided by the correlational analyses (see table 20) which revealed that for the total sample, there were significant negative correlations between age and the normative and utilitarian orientations, and significant positive correlations between age and the fairness and perfectionist orientations. This suggests that as age increases, there is a decline in the use of normative and utilitarian orientations and that there is an increase in the use of the perfectionist and fairness orientations.

Interestingly, when separate correlations were conducted for the two race groups (see table 20) to examine the relationship between age and the orientations, the results revealed that while whites showed similar trends in their

age moral orientation relationships as was found for the total sample, this was not true for blacks. The only significant correlation for blacks was for age and the normative orientation, which was a negative correlation. Although not significant, blacks showed a similar trend to whites on their correlations between age and the fairness orientation and age and the perfectionist orientation. However on the utilitarian orientation although not significant, blacks showed a positive trend between age and the utilitarian orientation. This is in direct contrast to whites who showed a significant negative correlation between age and the utilitarian orientation. This appears to suggest that blacks showed a trend towards increased usage of the utilitarian orientation with age, while whites showed a decline in their use of utilitarianism with an increase in age. As to why this was the case it is not entirely clear, and the explanation for this may be related to the finding that blacks on the comparison orientations of utilitarianism and fairness used significantly more utilitarianism than fairness irrespective of their age (see figure 2). Given the earlier argument it would have been expected that only younger black children (10-15 year olds) would have been significantly more oriented towards utilitarianism. Indeed this was found to be the case for whites where only the two youngest age groups used significantly more utilitarianism than fairness.

Several possible explanations may be entertained for this finding. First, that blacks continue to use significantly more utilitarianism than fairness irrespective of their age, may be explained by the nature of their social reality and the dictates of this reality. In other words, it is suggested that it may be their social experiences, and indeed very different social experiences from whites which can account for these findings. Intuitively, if one looks at the nature of the South African context one would expect that social experiences would have some impact on moral orientations. In this regard, it may be argued that at a very early age (as young as three years old according to Foster, 1986) black children are aware of their racial grouping, and not long thereafter do they become aware of the poignant reality of what it means to be black in South Africa. Blacks are painfully aware that they have unequal opportunities and life chances and that their basic rights and liberties are not protected by the law. Indeed, blacks identify themselves as a group and differentiate themselves from whites who are perceived as the oppressors concerned with justifying and maintaining an unjust system based on white hegemony and capitalism. Whether it be at school, where blacks are aware of the status of their schooling as still bearing the remnants of Verwoed's view that, "an African child should be schooled for servility" (Nasson, 1986, p.99), or whether it be at home where they

are often confronted with poverty and poor living conditions and where they are forced to live in designated areas, blacks recognize that it is they as a group who are confronted with this social reality. Under these circumstances one would anticipate that blacks would use more of the utilitarian orientation since this orientation reflects the concerns of black people in South Africa, namely, for improving the "lot" of blacks, i.e., for maximizing the welfare consequences for the group.

A logical counter - argument to the above explanation is that, surely, given the gross injustices towards blacks in South Africa and their awareness of these injustices, that blacks should have in fact been more concerned with the fairness orientation given that this reflects a concern for equality and justice? It may be suggested, as was outlined under level of moral reasoning, that the fairness orientation with a focus on justice may be a "luxury" which can only be "afforded" when more basic concerns have been met such as individual and group welfare. Thus it is possible that the older black children were more concerned with utilitarianism than fairness not because fairness is unimportant to them, but rather because the immediate and most important concern is with improving their situation as black people. In other words, they may be more concerned with "bread and butter" issues, and the utilitarian orientation embodies such a concern.

It might also be suggested that it is not so much that the older black children did not show a preoccupation with the fairness orientation, as it is that the fairness orientation is not adequately defined so as to take into account the South African context. In this regard, it is important to bear in mind that Kohlberg's theory was devised in America - a society in which there is protection of individual rights and liberties. Moreover, Kohlberg's view of fairness is drawn largely from Rawls' (1971) theorizing in which the idea of what is just and fair comes from the assumption of the "original position" in which it is assumed that all individuals are at an equal starting position, and then the resources of society are distributed in such a way as to provide the most equitable distribution. Clearly such circumstances could not be further removed from the prevailing conditions in South Africa. It may very well be the case that given the social circumstances in South Africa, that blacks think along very different lines than individuals in America on which Kohlberg's theory was predicated. Thus it is possible that the older black children did show some concern with the fairness orientation, but not fairness as it is defined in Kohlberg's theory. Within the local context, the concern with maximizing the consequences for the group may in fact be reflective of a concern for fairness given the prevailing economic, political and social realities.

A second possible explanation for why older black children used significantly more utilitarianism than fairness relates to stages of moral reasoning. It was suggested that the older black children's usage of the utilitarian orientation was inconsistent with the idea that there may be a relationship between cognitive maturity and moral orientation, and stage of moral reasoning and moral orientation.

However, if one looks again at the findings on level of moral reasoning then this finding on moral orientations may not be inconsistent. It will be recalled that there were significant differences between the races in level of moral reasoning, but only as a result of differences in the 19-28 age group, with whites reasoning at a higher level. Given that the 19-28 age group is one of the age groups we are concerned with when referring to older children, it is possible that although older blacks reason at higher levels than younger blacks they may still not have attained the necessary level of moral reasoning at which the fairness orientation would be a dominant orientation. This obviously presupposes that a certain stage of reasoning has to be attained before the fairness orientation would be a dominant concern. Certainly if past research is anything to go by, then it would appear that stage three which is the highest stage attained by the majority of older black children, is not usually accompanied by a dominant concern with the fairness orientation. While this may be the case

it is important not to forget that among the white children, the 16 - 18 year olds also used more fairness than utilitarianism, yet there were no significant differences between black and white 16-18 year olds in their level of moral reasoning. This would appear to discount the above argument. Clearly, the results of this study cannot provide an adequate evaluation of the idea that there may be a minimum stage requirement for the fairness orientation to be of dominant concern. Further research which not only addresses the relationship between stage of reasoning and type of orientation, but also the relationship between social experience and orientation, and which traces moral development over time would be salubrious in clarifying the presupposition suggested here.

A third and final explanation, concerns leadership experiences. Past research by Tietjen and Walker (1985) has found that leadership experience is important in that leaders use more fairness and perfectionism. Their explanation for this is that leaders are afforded the opportunity of being confronted with a variety of perspectives in the process of conflict resolution. Given the situation in South Africa, one would anticipate that whites have greater opportunities for leadership positions than is the case for blacks and this may explain their greater concern certainly with the fairness orientation.

The findings on the correlational analyses (see table 20) also revealed that for the total sample and for whites, education was the only social experience variable that was significantly correlated with the moral orientations. There was a positive correlation between education and perfectionism and fairness, and a negative correlation between education and the normative and utilitarian orientations. This suggests that as educational level increases there is a decline in the use of the normative and utilitarian orientations and an increase in the use of the perfectionist and fairness orientations. These findings are as expected given the earlier argument concerning cognitive maturity, and the greater use of the perfectionist and fairness orientations with increased cognitive maturity. For blacks, the only significant correlation was found on the normative orientation. There was a significant negative correlation between education and the normative orientation. This suggests that the use of the normative orientation declines with an increase in educational level. In line with age orientation correlations, the correlations between education and the perfectionist and fairness orientations although not significant, do suggest a trend towards greater usage of the fairness and perfectionist orientations with advancement in educational level. On the utilitarian orientation however, although not significant there is a trend towards increased usage of this

orientation with an increase in educational level. This is in stark contrast to whites who showed a significant negative correlation between education and utilitarian orientation. Nevertheless this finding is consistent with the finding for blacks on the correlation for age and the utilitarian orientation, and as was the case for age, the explanation for this may be related to the findings that blacks in general on the comparison orientations of fairness and utilitarianism were significantly more oriented towards utilitarianism.

That no significant correlations were found between socio-economic status and the orientations and between social index and the orientations, does not provide strong support for the relationship between social experiences and moral orientations. However, as has been suggested earlier, these measures of social experience were limited, and the failure to find a significant relationship may be more reflective of the limited nature of the social experience measures.

In summary, several explanations have been advanced for the findings in this study on moral orientations. These explanations have been based largely on intuition which has been necessitated by no previous research within the present context. It is hoped that the present findings and explanations may serve as a catalyst to stimulate further research.

6.1.4. Moral Type

The findings on moral type revealed no significant race differences in type of moral reasoning (see table 8). Blacks and whites showed no significant differences in their use of type A (heteronomous) and type B (autonomous) reasoning. There were however significant age differences (see table 9). Older children used less type A reasoning and more type B reasoning than younger children.

While the present study revealed no significant difference between the two race groups in their usage of the moral types, an analyses of the responses on the MJJ appears to suggest that while the end result is the same the processes involved (i.e., the thinking) in arriving at similar judgements varies somewhat between the races. This can be seen in the following responses on the MJJ.

On the Heinz dilemma, to the question of

"It is against the law for Heinz to steal, does that make it morally wrong?"

A typical response by black participants who were scored as type B were:

"No, because the chemist man is being selfish by keeping the drug for himself, and its morally wrong for him not to help, he should feel sorry for poor people." (subject 26, age 13)

"No, the law is not always right and best, if it was then it would punish the man for not giving the woman the medicine." (subject 2, age 12)

A typical response by white participants who were scored as type B were:

"No, because the law is not always adequate for every situation, and life is the highest value."
(subject 36, age 15)

"No, because the wife is important, she's a person"
(subject 9, age 12)

The above responses of blacks and whites while both meeting the choice criterion for being classified as type B, appear to show that blacks and whites are coming from very different frameworks. For blacks the moral "rightness" appears to be predicated on a comparison between the exploitation of the chemist and Heinz's poverty. For whites, the moral justifications appear to rest on a comparison between the value of human life and the need for flexibility of laws.

Similarly, on the Officer Brown dilemma in response to the question, "should Officer Brown report Heinz for stealing?" the typical response from blacks was:

"No, because friends don't tell on one another, they care for each other." (subject 8, age 12)

"No, he wasn't hurting anyone, he wasn't stealing

for himself to get rich, and the pharmacist is wrong to charge such a high price." (subject 44, age 18)

The typical response from whites was:

"No, because if he does then Heinz won't get the drug and his wife will die." (subject 14, age 12)

"No, because life is precious, should feel sorry for fellow human beings, pretend he saw nothing, and Heinz has suffered enough." (subject 54, age 16)

In the above responses, the justifications of the black participants appear to rest on the importance or friendship and the "exploitation" by the pharmacist. In contrast, the white participants appear to justify their choice by reference to pragmatic considerations, that if Heinz is reported he will not be able to give the drug to his wife, as well as the general value and importance of human life.

It is significant that a common theme throughout many of the responses by blacks on the Heinz and Officer Brown dilemmas is that of the exploitation by the pharmacist. In contrast to this, the more common theme among whites appears to be the importance or value of human life. This

underscores the suggestion that blacks and whites in South Africa may think along very different lines when justifying moral choices. Also, and perhaps more importantly, it suggests the need to move beyond a mere quantitative assessment of moral reasoning to a more qualitative assessment which takes cognisance of the possibility that while blacks and whites may be similar in their end point of moral reasoning, the manner in which they get there and the processes involved may be very different.

The age findings on moral type in the present study are consistent with past studies (e.g., Nissan and Kohlberg, 1982; Logan, Snarey and Schrader, 1984) which have found a monotonic relationship between age and moral type B judgements. As age increases, individuals are more likely to make autonomous based moral judgements. This can be clearly seen in the present study where the older the age group the more evidence there is of autonomous moral judgements. This appears to suggest that moral type like moral stage is a developmental variable.

Consistent with the findings on moral stage and moral orientations point bi - serial correlations conducted to examine the relationship between age and moral type and social experience and moral type (see table 21) revealed that the only variables significantly correlated with moral type were age and education. That age was found to be

significantly correlated with moral type B, is consistent with the above argument concerning the monotonic relationship between age and moral type B judgements. That education was found to be positively correlated with moral type B is as expected given the substantial research (see chapter 3 for a review of this research) pointing to the importance of education on moral reasoning, and indeed given the fact that the more educated participants were also older. With regard to the other social experiential variables (socio - economic status and social index), it has been suggested (e.g., Piaget, 1965; Kohn, 1977) that these may have an influence on moral type. However, past research (e.g., Colby et al., 1983) has not provided strong support for such a suggestion. Thus, the findings in the present study that socio - economic status and social index are not correlated with moral type appears to support past findings.

It must however be borne in mind, that the manner in which these social experiential variables were measured was limited, and that the type of sample used was not necessarily reflective of the extreme social realities, (including socio - economic status) in South Africa and therefore one needs to be cautious in accepting that there is no relationship between social experience and moral type. Moreover, and related to the point raised earlier, it may

well be the case that the impact of social experiences are to be seen not at the end point of moral reasoning but rather in the processes or thinking when arriving at similar judgements. Thus future research might focus on the relationship between social experience and the various responses on the MJI. Further research which includes a more representative sample, and which provides a more comprehensive measure of social experience would also be salutary in providing clarity on the relationship between moral type and social experiences.

6.2. Conclusion

The present study examined the relationship between social experience and moral reasoning - a topic which has hitherto largely been ignored within the South African context. From this study three salient conclusions may be drawn. First, that although blacks and whites show some differences (i.e., in the 19 - 28 age group) in their level of moral development, the more fundamental differences between these groups appears to lie in their modes of moral reasoning or in the manner in which they reach their end point of moral development and reasoning. Blacks appear to be more concrete in their thinking and this is evidenced in their tendency to remain within the confines of the dilemmas when justifying moral choices. Furthermore, blacks tend to be guided more by a concern with the consequences for the group of particular moral decisions. Whites in contrast

show a more individualistic orientation when justifying moral choices, and they tend to move beyond the confines of the dilemmas when justifying moral choices. This disparity between blacks and whites may be symptomatic of the different social realities experienced by blacks and whites in South Africa.

Second, although in this study it was found that social experiences (aside from education) were not strongly related to moral reasoning, it may be argued that a relationship may in fact exist, but this is to be seen not at the end point of moral development and reasoning but rather in the processes involved in reaching this end point. Alternatively, it may be suggested that if social experiences are indeed related to, and impact on, level of moral development (i.e., at the end point) then this is more likely to be evidenced among older individuals - individuals who can more fully comprehend the ramifications of their reality. In this regard, further research that is sensitive to identifying more relevant social experiences, and which documents them in a more sound manner and which focusses not only on the end point of moral development and reasoning but also on the processes involved in reaching this end point, may provide greater acumen on the relationship between social experience and moral reasoning.

Third and finally, although Kohlberg's theory was originally formulated in a society very different from that of the South African context, the findings in this study suggest that his theory and stages of development are applicable within the present context. In this regard, the study succeeds in providing further affirmation of the universality of Kohlberg's stages of moral development.

CHAPTER SEVEN

LIMITATIONS AND RECOMMENDATIONS

In many respects the present study represents uncharted territory. To the best of my knowledge it represents the first attempt within the South African context to document the relationship between moral reasoning and social experience using Kohlberg's theoretical framework. Moreover, it represents one of few attempts to specifically test for differences in social experiences across a broad age range of children. Given the innovative nature of the present study, it is not unexpected that there are numerous problems and limitations.

Perhaps the most significant limitation of the present study concerns the sample. Although pragmatic considerations of the unavailability of IQ records in black public schools and problems with bureaucracy concerning the granting of permission for the study, dictated the selection of children from private schools, it is recognized that these children were not representative of the school going population in general. Not only is the educational environment in private schools very different from that of public schools, particularly black public schools, but the fact that the present sample were all of middle and upper socio-economic status suggests that the present study did not

sample the social experience of many black children namely that of deprivation and poverty. In this regard one might question the relevance and applicability of the findings of the present study. While this may be a valid question, it is important to bear in mind that because of the social reality within the South African context where one's social experience is significantly determined by one's racial grouping, blacks from private schools will necessarily share many common social experiences with blacks from public schools. Thus, while a more representative sample may produce very different results, it is envisaged that such research will also produce some results in accordance with the present study. Ideally however, future researchers should aim at a more representative sample. In this regard researchers might also consider gender differences in moral reasoning because although this was not an issue in the present study, it remains a controversial issue and requires further investigation. Although the sample was drawn largely from private schools in and around Durban, and from universities in Natal, the sample size was not large. Once again the size of the sample was determined by practical constraints of limited numbers of black private school scholars, time constraints and the lengthy nature of the research. Future research which utilizes scholars from public schools would be able to overcome the problem of sample size.

A second problem concerns the measures used to document social experiences. All three of the measures although self devised, primarily were aimed at measuring social experiences which had been identified as important influences on moral reasoning by previous researchers. Unfortunately however, this research was conducted in contexts that were very different from the South African context, and it was felt that these social experiences may not necessarily be the most significant for individual's living in a racially divided society. Future researchers should be sensitive to this possibility, and would do well to identify prior to formulating measures of social experience, what may be the most meaningful social experiences. Moreover, future researchers should consider using a more comprehensive definition of social experiences, including both past and present social experiences.

The measures used to document social experiences could perhaps have been more appropriately designed so as to facilitate ease of scoring. Part of the problem in this regard relates to the concept of social experience, which is not easily quantifiable. Moreover, there existed virtually no previous research by which to go by, and as suggested earlier, one can anticipate problems to arise when researching uncharted territory.

A third limitation of the present study is that its relevance may be limited to a specific historical period. The

study was conducted at a time when South Africa was on the threshold of fundamental change and when negotiations were underway for a new dispensation. In this regard, although the full aftermath of the apartheid system may continue to be seen for many years to come, the findings of this study may be more pertinent to an Apartheid society than to a post - Apartheid society. Further research should focus on the relationship between moral reasoning and social experience in a post - Apartheid South Africa.

A fourth limitation concerns the possible confounding of age and education. In the present study older participants also had higher levels of education and similarly the more educated participants were also older, and thus it was not easy to isolate the impact of age from education on moral reasoning. Moreover, given the suggestion in the present study that education may be a better predictor for blacks, further research in the South African context should be wary of using age as the sole criterion for differentiating between blacks and whites, and would be advised to use educational level as the appropriate measure.

The present study was a cross - sectional study which, although ideally suited to comparing different groups at a particular point in time, does not allow for developmental comparisons over time. In this regard, further research might consider a longitudinal analysis which looks at the development of moral reasoning of blacks and whites over time. Such an analysis would be salutary in elucidating

what the impact of social experiences are on moral reasoning, whether this impact is to be seen in terms of rate of moral development or end point of moral development.

The present study was largely a quantitative assessment of the relationship between social experience and moral reasoning. Notwithstanding the merits of a quantitative approach such an approach is limited in a number of respects. In particular, such an approach does not always facilitate the identification of differences which may appear during a process rather than at the end of a process. This was certainly true in the present study for moral type as well as for some of the responses on the social experience questionnaire. Future researchers would do well to take cognisance of this, and perhaps attempt a combination of a quantitative and qualitative approach.

Although Kohlberg's theoretical framework fairs well in the present study in that most of his stages were evident and that they appeared to be developmental in nature, this belies the existence of a number of problems with his theory and scoring manual. Perhaps the most significant problem and one which bears mentioning concerns the question of the relevance of the dilemmas to the sample in this study. Past research studies in traditional cultures, confronted with a similar problem have tended to modify the dilemmas so as to make them more relevant. However, in all

of these studies, they were dealing largely with a single homogeneous population. This was certainly not the case in the present study and thus it was decided not to modify the dilemmas because this may have resulted in a situation in which the dilemmas would be more relevant to one race group and not the other. Perhaps future researchers might consider introducing two additional dilemmas, one for each race group and then comparing the scores on these dilemmas to the scores on the standard dilemmas. This may provide some indication of the relevance of the standard dilemmas to the South African context, and indeed of their relevance to the particular race groups.

The above limitations represent some of the more fundamental problems with the present study. Notwithstanding these problems, the present study suggests an important avenue for future research at a time in the history of South Africa where there is a pressing need for such research. For, if one considers that the negotiations taking place at the present time between various political leaders in South Africa concern not only the changing of power but also a concern for establishing a just society, and that an essential feature of the development of morality is that of justice, then one can appreciate the importance of research in the area of morality. While laws may facilitate justice, a truly just society can only emerge when individuals in the society have an inner sense of justice and morality.

Thus, research within the South African context along the lines of the present study would do much to clarify how the different race groups view justice and indeed how their different social experiences have impacted on their view of what is just and fair. Such research may be invaluable in identifying what needs to be done to stimulate this inner higher sense of justice and morality. By stimulating this inner sense of justice and morality we can help ensure that the "New South Africa" will not be one in which one oppressor is exchanged for another.

Concluding Statement

Although problematic in a number of respects, the present study provides a very fresh and relevant avenue for future research. It is hoped that this study will have provided some acumen into the moral reasoning of blacks and whites in South Africa, and of the possible impact of social experience on this reasoning. It is further hoped that this study may be a foundation for future research.

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APPENDIX A

BIOGRAPHICAL INVENTORY

T-TESTS ON DEMOGRAPHIC CHARACTERISTICS

BIOGRAPHICAL QUESTIONNAIRE:

(To be completed by parent/guardian).

Dear Parent/Guardian

The purpose of this questionnaire is to complement the information obtained from your child's diary and questionnaire. All the information in this questionnaire will be processed collectively (i.e., in a group) and will be held in the strictest confidence.

Please read all the instructions before answering the questions. Your co-operation in this regard is greatly appreciated.

INSTRUCTIONS:

1. All questions should be answered as honestly as possible, and there are no right or wrong answers.
2. On completing the questionnaire, please place the questionnaire in the envelope marked "Parents/Guardians Questionnaire", and seal the envelope.
3. At the end of the week, place this envelope together with your child's diary and questionnaire in the larger envelope provided, seal it, and return it to your child's school/university.

MR. K. SMITH
University of Durban-Westville.

1. Surname : _____
First Name : _____

2. Age : _____

3. Race :

AFRICAN	WHITE	COLOURED	INDIAN
---------	-------	----------	--------

(PLEASE TICK)

4. Marital Status :

MARRIED	WIDOWED	DIVORCED	SINGLE
---------	---------	----------	--------

(PLEASE TICK)

5. Highest Education Level : SELF : _____
SPOUSE : _____

6. Occupation : SELF : _____
SPOUSE : _____

7. Approximate total monthly income for family. (Please tick appropriate box.)

	Below R500
	R 500 - R1 000
	R1 001 - R1 500
	R1 501 - R2 000
	R2 001 - R2 500
	R2 501 - R3 000
	R3 001 and above

8. Number of Children : _____

9. Ages of children : 1. _____
2. _____
3. _____
4. _____
5. _____
Other. _____

10. Do any of these children work? _____

YES	NO
-----	----

(PLEASE TICK)

If yes, state their occupation

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

Other. _____

11. How many of your children reside at home? _____

12. Are there any other persons apart from yourself, your spouse and your children who are resident in your home?

YES	NO
-----	----

yes - 1 point
no - 2 points

(PLEASE TICK)

If yes, state the nature of the relationship of this person / persons to you, his/her or their occupation and educational level attained.

	NATURE OF RELATIONSHIP	OCCUPATION	EDUCATIONAL LEVEL
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
Other.	_____	_____	_____

13. In what area do you live? _____

14. Do you live in a

HOUSE	FLAT	OTHER
-------	------	-------

house - 3 points
flat - 2 points
other - 1 point

(PLEASE TICK)

15. Do you own this dwelling or is it rented? _____

own - 2 points
rent - 1 point

16. How many bedrooms are there in your home? _____

1 point for each bedroom

17. How many of your children have their own bedroom?
2 points for each child having own bedroom
1 point for children sharing bedrooms

18. Of the following amenities, tick those which exist in your neighbourhood.

<input type="checkbox"/>	Public Telephone
<input type="checkbox"/>	Refuse collection
<input type="checkbox"/>	Paved roads
<input type="checkbox"/>	Pavements
<input type="checkbox"/>	Public Schools
<input type="checkbox"/>	Public Parks
<input type="checkbox"/>	Street Lighting
<input type="checkbox"/>	Shops and Shopping Centre
<input type="checkbox"/>	Public Transport
<input type="checkbox"/>	Public Swimming Pool
<input type="checkbox"/>	Other (Please Specify) _____

1 point for each amenity

INDEPENDENT SAMPLES T-TEST ON TAGE GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	15.525	3.442
2.000	41	15.439	3.860

SEPARATE VARIANCES T = 0.106 DF = 78.4 PROB = 0.916
 POOLED VARIANCES T = 0.106 DF = 79 PROB = 0.916

INDEPENDENT SAMPLES T-TEST ON EDUC GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	7.475	3.080
2.000	41	7.463	2.992

SEPARATE VARIANCES T = 0.017 DF = 78.8 PROB = 0.986
 POOLED VARIANCES T = 0.017 DF = 79 PROB = 0.986

INDEPENDENT SAMPLES T-TEST ON FAMSIZE GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	6.375	2.261
2.000	41	4.659	1.132

SEPARATE VARIANCES T = 4.304 DF = 57.1 PROB = 0.000
 POOLED VARIANCES T = 4.337 DF = 79 PROB = 0.000

INDEPENDANT SAMPLES T-TEST ON FAMINC GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	4.325	2.018
2.000	41	6.463	1.051

SEPARATE VARIANCES T = -5.960 DF = 58.4 PROB = 0.000
 POOLED VARIANCES T = -6.003 DF = 79 PROB = 0.000

INDEPENDENT SAMPLES T-TEST ON SES GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	8.750	4.617
2.000	41	14.634	3.284

SEPARATE VARIANCES T = -4.353 DF = 70.3 PROB = 0.000
 POOLED VARIANCES T = -4.371 DF = 79 PROB = 0.000

APPENDIX B

SOCIAL EXPERIENCE QUESTIONNAIRE

Social experience questionnaire

(to be completed by the participant in this research)

Dear Scholar / Student

The purpose of this questionnaire is to complement the information obtained from your diary. All your responses will be held in the strictest confidence.

Please read the instructions below before answering the questions. Thank you for your participation in this research.

INSTRUCTIONS:

1. Please answer all questions as honestly as possible. There are no right or wrong answers.
2. Sections 1 and 2 are to be completed by everyone. Section 3 is to be completed only by school children and Section 4 is to be completed by University students only.
3. At the end of the week place the questionnaire together with your diary in the envelope provided and return it to your school / university.

SECTION 1

Please place a tick in the relevant box, where applicable.

1. Surname : _____

First Name : _____

2. Sex :

MALE	FEMALE
------	--------

3. Age :

10 - 12	13 - 15	16 - 18	19 - 28
---------	---------	---------	---------

4. Race :

BLACK	WHITE	COLOURED	INDIAN
-------	-------	----------	--------

5. School / University : _____

6. Standard at School / Year at University : _____

SECTION 2

1. What leisure activities do you participate / engage in outside of school / university in your free time?

1. _____ 1 point

2. _____ 2 points

3. _____ 3 points

4. _____ 4 points

Other. _____ 5 points

2. Do any of these equipment require special equipment?

YES	NO
-----	----

If you answered YES to the above question, state what this equipment is and indicate whether the equipment is owned or borrowed.

*yes and owned - 2 points
yes and borrowed - 1 point
no - 0 points*

EQUIPMENT

1. _____	OWNED	BORROWED
2. _____	OWNED	BORROWED
3. _____	OWNED	BORROWED
4. _____	OWNED	BORROWED
Other. _____	OWNED	BORROWED

3. Approximately how much time in a week do you spend on these leisure activities?

LESS THAN 1 HOUR	1 TO 2 HOURS	2 TO 3 HOURS
3 TO 4 HOURS	4 TO 5 HOURS	MORE THAN 5 HOURS

less than 1 hr. - 1 point 1 to 2 hrs. - 2 points
2 to 3 hrs. - 3 points 3 to 4 hrs. - 4 points
4 to 5 hrs. - 5 points more than 5 hrs. - 6 points

4. Are there any leisure activities that you would like to participate / engage in, but are unable to do so because these activities are too expensive?

YES	NO
-----	----

yes - 1 point
no - 2 points

If YES, state what these activities are.

5. If you participate / engage in any leisure activities at a place other than your home, state the activity, indicate how far you have to travel, how long this travelling takes and what form of transport you use.

1. _____

LESS THAN 5 KM	5 - 10KM	MORE THAN 10KM		
LESS THAN 1 HR	1 - 2HR	MORE THAN 2HR		
BUS	CAR	TRAIN	TAXI	WALK

2. _____

LESS THAN 5 KM	5 - 10KM	MORE THAN 10KM		
LESS THAN 1 HR	1 - 2HR	MORE THAN 2HR		
BUS	CAR	TRAIN	TAXI	WALK

3. _____

LESS THAN 5 KM	5 - 10KM	MORE THAN 10HR		
LESS THAN 1 HR	1 - 2HR	MORE THAN 2HR		
BUS	CAR	TRAIN	TAXI	WALK

4. _____

LESS THAN 5 KM	5 - 10KM	MORE THAN 10KM		
LESS THAN 1 HR	1 - 2HR	MORE THAN 2HR		
BUS	CAR	TRAIN	TAXI	WALK

Other. _____

LESS THAN 5 KM	5 - 10KM	MORE THAN 10KM		
LESS THAN 1 HR	1 - 2HR	MORE THAN 2HR		
BUS	CAR	TRAIN	TAXI	WALK

less than 5km - 2 points
more than 10km - 1 point
1 - 2 hrs - 2 points
bus - 1point
train - 1 point
walk - 3 points if less than 5km

5 - 10km - 2 points
less than 1hr - 3 points
more than 2hrs - 1 point
car - 2 points
taxi - 1 point

6. Do you like the home that you are living in? If yes state what you like about your home. If no, state what you dislike most about your home, and what type of home you would like to live in?

YES: _____

_____ 1 point

NO: _____

_____ 0 points

7. Do you like the neighbourhood that you live in? Answer yes or no and why.

_____ yes - 1 point no - 0 points

8. Do you regard your neighbourhood as a safe and secure environment? Answer yes or no and why.

_____ yes - 1 point no - 0 points

9. Does your family own a motor vehicle?

YES	NO
-----	----

yes - 1 point no - 0 points

10. How do you travel to and from school / university each day?

CAR	BUS	TRAIN	TAXI	WALK
-----	-----	-------	------	------

car - 2 POINTS bus - 1 point
train - 1 point taxi - 1 point
walk - 3 points

11. How long do you spend travelling to and from school / university each day?

LESS THAN 1HR	1HR - 1½HRS	1½ - 2HRS	MORE THAN 2HRS
---------------	-------------	-----------	----------------

less than 1hr - 3points 1hr to 1½hrs - 2points
1½ to 2hrs - 2points more than 2hrs - 1point

12. When you travel to and from school / university each day, do you find such travelling a safe and pleasurable experience? Answer yes or no and why.

yes - 1 point no - 0 point

13. When you and your parents and siblings go out together, what is the usual form of transport that you use?

CAR	BUS	TRAIN	TAXI	WALK
-----	-----	-------	------	------

14. Do you have any special chores to do each day?

yes	no
-----	----

yes - 1 point
no - 0 points

If yes, state what these chores are and indicate the approximate amount of time in a week spent doing these chores?

LESS THAN 1HR	1 -2HRS	2 -3HRS	3 -4HRS	MORE THAN 4HRS
---------------	---------	---------	---------	----------------

less than 1hr - 1 point 1 to 2hrs - 2points
2 to 3hrs - 3points 3 to 4hrs - 4points
more than 4hrs - 5points

15. When decisions in your family are made, that are important for the whole family, how often are your opinions considered?

NEVER	SOMETIMES	FREQUENTLY	ALWAYS
-------	-----------	------------	--------

16. Do you have any friends who are of a different racial group than you?

YES	NO
-----	----

YES - 1 POINT
NO - 0 POINTS

If yes, indicate which racial group.

BLACK	WHITE	COLOURED	INDIAN
-------	-------	----------	--------

17. Does your best friend belong to the same racial group as you?

YES	NO
-----	----

YES - 1 POINT
NO - 0 POINTS

If no, indicate which racial group he/she belongs to.

BLACK	WHITE	COLOURED	INDIAN
-------	-------	----------	--------

SECTION 3

(To be completed by school children only.)

1. Indicate whether, at school, you are any one of the following:

	YES	NO
1. Prefect	<input type="checkbox"/>	<input type="checkbox"/>
2. Monitor	<input type="checkbox"/>	<input type="checkbox"/>
3. Member of any school team	<input type="checkbox"/>	<input type="checkbox"/>
4. Captain of any school team	<input type="checkbox"/>	<input type="checkbox"/>

1 point for each yes response - total out of 4

2. Outside of school are you:

	YES	NO
1. A leader of any group or captain of any team?	<input type="checkbox"/>	<input type="checkbox"/>
2. A member of any team or group?	<input type="checkbox"/>	<input type="checkbox"/>

1 point for each yes response - total out of 2

SECTION 4

(To be completed by university students only.)

1. Indicate whether at university you are any one of the following:

	YES	NO
1. Member of S.R.C. or any other university group or body.	<input type="checkbox"/>	<input type="checkbox"/>
2. Class representative	<input type="checkbox"/>	<input type="checkbox"/>
3. Captain of any university team	<input type="checkbox"/>	<input type="checkbox"/>
4. Leader of any university group	<input type="checkbox"/>	<input type="checkbox"/>

*1 point for each yes response.
Total out of 4.*

3. Outside of university are you:

	YES	NO
1. A member of any group / body / committee or team?	<input type="checkbox"/>	<input type="checkbox"/>
2. A leader of any group / body / committee or team?	<input type="checkbox"/>	<input type="checkbox"/>

*1 point for each yes response.
Total out of 2*

APPENDIX C

DAILY ACTIVITY DIARY

DAILY ACTIVITY DIARY

NAME : _____

AGE : _____

RACE : _____

SCHOOL/UNIVERSITY : _____

STARTING DAY OF DIARY : _____

LAST DAY OF DIARY : _____

INSTRUCTIONS

WHAT THE DIARY IS FOR:

The diary is for the recording and description of all daily activities from the time one wakes in the morning until one goes to bed in the evening.

WHAT TO RECORD:

All daily activities must be recorded. The most important information to record however is:

- A. Types of leisure activities that you participate in and with whom.
- B. What you do in your free time.
- C. Types of chores you do each day (if any).
- D. How you travel to and from school / university each day. What form of transport you use when going somewhere, other than school / university, either with friends and / or parents.
- E. Who your friends are (i.e., their age and race) at school / university and at home. Activities engaged in with these friends, and what you talk about to these friends.
- F. Time spent with parents and family, types of activities engaged in with parents and family.
- G. Number of meals per day and what you have to eat.

HOW TO RECORD THE INFORMATION

(see example on next page)

1. The diary has various time intervals beginning at 5:00 am and ending at 12:00 pm. Under the column "Activity" you are required to specify the activity you were engaged in during these time intervals.
2. Under the column "Description of Activity" you are required to describe in as much detail as possible the activity engaged in, bearing in mind what is the important information to record.
3. Under the columns "People present and involved in activity" and "People present but not involved in activity", you are required to indicate whether your parents, brothers and sisters (siblings), friends and other persons such as a relative were either present and involved or were present but not involved in the activity that you were involved in.

A person is present and involved when that person participates in the activity that you were engaged in. For example, if you and your parents are watching television together then your parents are both present and involved. A person is present but not involved, when that person is with you but not participating in the same activity as you are involved in. For example, you may be having supper while your parents are watching television. In this case your parents are present but not involved in the activity, since they are not eating supper with you.

4. At the end of each day, there is a "Summary" page on which are required to sum up the days events and you may add any information which you think is important.

SUMMARY

I enjoyed the day, especially because the English test was so easy. I played soccer with my friends, did all my chores and watched television. I bought a yoyo with my pocket money.

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

NOW PLEASE TURN THE PAGE TO BEGIN YOUR DAILY
ACTIVITY DIARY

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

DAY : SUNDAY

TIME & ACTIVITY	DESCRIPTION OF ACTIVITY	PEOPLE PRESENT AND INVOLVED IN ACTIVITY						PEOPLE PRESENT BUT NOT INVOLVED IN ACTIVITY					
		H O T H E R	F A T H E R	SIBLINGS 1 2 3	FRIENDS (SPECIFY RACE & NUMBER)	OTHER (SPECIFY MNO)	H O T H E R	F A T H E R	SIBLINGS 1 2 3	FRIENDS (SPECIFY RACE & NUMBER)	OTHER (SPECIFY MNO)		
5:00 - 5:59													
6:00 - 6:59													
7:00 - 7:59													
8:00 - 8:59													
9:00 - 10:00													
TEA BREAK													
11:00 - 11:59													
12:00 - 1:00													
LUNCH BREAK													

SUMMARY

Did you receive pocket money/allowance for the day?

YES	NO
-----	----

(PLEASE TICK)

If yes, how much?

APPENDIX D

SUMMARY OF SCORING PROCEDURE,

EXAMPLE OF SCORING SHEET,

AND

LIST OF NORMS

Section i: Breaking down interview material into interview judgements

1. Orientation to the dilemma as a whole

2. Identification of chosen issue

Determine which of the two standard issues is the subject's chosen issue, i.e. which course of action on the dilemma is recommended.

3. Classification by issue

Classify all responses to the dilemma questions according to which of the two standard issues they represent.

4. Tentative stage orientation by issue

Make an initial and tentative evaluation of the stage of reasoning reflected in the responses classified under the first issue to be scored (the chosen issue).

5. Classification into interview judgements

5a. Classification by norm

Separate the material classified under the chosen issue into subcategories according to the norm reflected by the response.

5b. Classification by element

Separate the material classified under the first norm to be scored into units that reflect a single element.

6. Scorability criteria

An interview judgement (IJ), to be considered scor-

able, must provide a reason that is considered valid by the subject and must be prescriptive in nature

Section ii: Matching interview judgements with criterion judgements (CJs)

7. Locating a potential IJ-CJ match (Phase 1 of match evaluation)

Guess the stage of the first IJ to be evaluated, and identify a CJ that seems to correspond to the IJ.

8. Surface evaluation of proposed match

Evaluate the correspondence between IJ and CJ according to the CJ critical indicator (Phase 2).

9. Structural evaluation of proposed match

Evaluate the correspondence between the IJ and CJ stage structure (Phase 3).

10. Accepting or rejecting the proposed match

The following criteria must be met if a match score is to be assigned:

- a) The IJ must provide a reason that is attributed at least some validity by the subject and is at least implicitly prescriptive.
- b) The IJ must exhibit all the required critical indicators of the CJ.
- c) The IJ must be consistent with the specific stage structure of the CJ.

d) The IJ must not provide a clearer match for the critical indicators and stage structure of any other CJ.

11. Entering a match score on the score sheet

If the IJ-CJ match is accepted (as a clear or marginal match), it is noted on the score sheet.

12. Scoring the remaining IJs on the issue

a) After scoring the first IJ of the issue. attempt to match any other IJs on the same issue that use the same norm.

b) Then score the remaining IJs on the issue that use other norm. A score for each successful IJ-CJ match is entered on the score sheet.

c) Material for which no clear or marginal match can be found should be bracketed for possible use in guess scoring.

d) Check for inclusions.

13. Guess scoring

If no match scores have been assigned but moral judgment material is available, enter a guess score for the issue.

If no match or guess scores have been assigned, enter a note of "no material" for the issue.

14. Scoring the remainder of the interview

Proceed with the second issue on the first dilemma and then with both issues on the second and third dilemmas.

Section iii: Assigning stage scores at the issue and global levels

15. Calculating issue scores

Calculate stage scores for each of the issues on an interview.

16. Calculating global stage scores

Calculate a stage score for the entire interview.

17. Calculating a weighted average score (WAS)

Calculate a weighted average score for the entire interview.

(Colby et al, 1987a, pp. 159-160)

STANDARD SCORING SHEET

Date: _____

Interview no./s name: _____

Scored by: _____ Form A / Form B / Form C

(circle chosen issue)

Dilemma iii (Form A) or iv
(Form B) or v (Form C)

Life (Form A) or Life Quality
(Forms B and C) Issue

Law (Form A) or Law / Life
(Forms B and C) Issues

Q	CJ / norm and element	Stage (Notes)	Q	CJ / norm and element	Stage (Notes)

Issue score

Issue score

(circle chosen issue)

Dilemma iii (Form A) or iv
(Form B) or viii (Form C)

Morality and conscience

Punishment

Q	CJ / norm and element	Stage (Notes)	Q	CJ / norm and element	Stage (Notes)

Issue score

Issue score

(circle chosen issue)

Dilemma i (Form A) or iv
(Form B) or vii (Form C)

Contract issue

Authority issue

Q	CJ / norm and element	Stage (Notes)	Q	CJ / norm and element	Stage (Notes)

Issue score

Issue score

LIST OF NORMS

1. Life
 - a. Preservation
 - b. Quality - quantity
2. Property
3. Truth
4. Affiliation
5. (Erotic love and sex)
6. Authority
7. Law
8. Contract
9. (Civil rights)
10. (Religion)
11. Conscience
12. Punishment

APPENDIX E

RAW DATA

		FAMJD	TAGE	AGEGRP	SEX
CASE	1	1	12	1	2
CASE	2	2	12	1	2
CASE	3	3	11	1	2
CASE	4	4	12	1	2
CASE	5	5	10	1	2
CASE	6	6	11	1	1
CASE	7	7	10	1	1
CASE	8	8	12	1	2
CASE	9	9	12	1	2
CASE	10	10	10	1	1
CASE	11	11	11	1	1
CASE	12	12	10	1	1
CASE	13	13	12	1	2
CASE	14	14	12	1	2
CASE	15	15	11	1	1
CASE	16	16	11	1	1
CASE	17	17	10	1	1
CASE	18	18	11	1	2
CASE	19	19	11	1	2
CASE	20	20	10	1	1
CASE	21	21	11	1	2
CASE	22	22	15	2	2
CASE	23	23	13	2	2
CASE	24	24	15	2	1
CASE	25	25	15	2	2
CASE	26	26	13	2	2
CASE	27	27	13	2	2
CASE	28	28	13	2	2
CASE	29	29	13	2	2
CASE	30	30	13	2	2
CASE	31	31	13	2	2
CASE	32	32	13	2	2
CASE	33	33	14	2	2
CASE	34	34	13	2	1
CASE	35	35	14	2	1
CASE	36	36	15	2	1
CASE	37	37	15	2	2
CASE	38	38	15	2	2
CASE	39	39	15	2	1
CASE	40	40	14	2	1
CASE	41	41	14	2	2
CASE	42	42	18	3	2
CASE	43	43	18	3	1
CASE	44	44	18	3	1
CASE	45	45	18	3	2
CASE	46	46	18	3	2
CASE	47	47	17	3	1
CASE	48	48	18	3	1
CASE	49	49	17	3	2
CASE	50	50	18	3	1
CASE	51	51	17	3	2
CASE	52	52	16	3	2
CASE	53	53	17	3	2
CASE	54	54	16	3	2
CASE	55	55	16	3	2
CASE	56	56	16	3	2
CASE	57	57	17	3	1
CASE	58	58	16	3	2
CASE	59	59	16	3	2
CASE	60	60	16	3	2
CASE	61	61	16	3	1
CASE	62	62	19	4	1
CASE	63	63	20	4	2
CASE	64	64	20	4	2
CASE	65	65	21	4	2
CASE	66	66	19	4	1
CASE	67	67	21	4	1
CASE	68	68	19	4	1
CASE	69	69	19	4	1
CASE	70	70	19	4	2
CASE	71	71	19	4	1
CASE	72	72	23	4	1
CASE	73	73	19	4	1
CASE	74	74	19	4	2
CASE	75	75	21	4	1
CASE	76	76	24	4	1
CASE	77	77	21	4	1
CASE	78	78	19	4	2
CASE	79	79	19	4	2
CASE	80	80	20	4	2
CASE	81	81	24	4	1

		RACE	EDUC	MARITAL	FAMINC
CASE	1	1	5	1	5
CASE	2	1	5	1	7
CASE	3	1	4	1	7
CASE	4	1	4	1	5
CASE	5	1	3	1	5
CASE	6	1	3	1	6
CASE	7	1	3	1	4
CASE	8	1	5	3	7
CASE	9	1	5	4	4
CASE	10	1	3	1	6
CASE	11	2	3	1	7
CASE	12	2	3	1	7
CASE	13	2	5	1	7
CASE	14	2	5	1	7
CASE	15	2	3	1	7
CASE	16	2	3	1	7
CASE	17	2	3	3	5
CASE	18	2	4	1	5
CASE	19	2	3	1	6
CASE	20	2	3	1	7
CASE	21	2	4	3	6
CASE	22	1	6	1	6
CASE	23	1	4	1	6
CASE	24	1	6	4	1
CASE	25	1	7	1	2
CASE	26	1	5	3	7
CASE	27	1	6	1	6
CASE	28	1	4	3	2
CASE	29	1	4	3	6
CASE	30	1	5	1	7
CASE	31	1	5	1	5
CASE	32	2	6	1	7
CASE	33	2	7	1	7
CASE	34	2	3	4	7
CASE	35	2	7	1	6
CASE	36	2	8	1	7
CASE	37	2	8	2	3
CASE	38	2	7	1	7
CASE	39	2	8	1	7
CASE	40	2	6	1	7
CASE	41	2	6	1	7
CASE	42	1	9	1	3
CASE	43	1	11	1	7
CASE	44	1	10	2	2
CASE	45	1	11	1	7
CASE	46	1	8	1	1
CASE	47	1	10	2	2
CASE	48	1	10	2	2
CASE	49	1	9	1	3
CASE	50	1	11	1	5
CASE	51	1	10	1	2
CASE	52	2	9	1	7
CASE	53	2	10	1	7
CASE	54	2	9	1	7
CASE	55	2	9	1	7
CASE	56	2	9	1	7
CASE	57	2	10	1	7
CASE	58	2	9	1	7
CASE	59	2	9	1	7
CASE	60	2	9	1	7
CASE	61	2	8	1	7
CASE	62	1	11	1	5
CASE	63	1	11	1	2
CASE	64	1	11	1	5
CASE	65	1	11	1	2
CASE	66	1	10	1	4
CASE	67	1	11	3	2
CASE	68	1	10	3	2
CASE	69	1	11	1	5
CASE	70	1	11	1	6
CASE	71	1	11	1	2
CASE	72	2	11	1	7
CASE	73	2	11	1	7
CASE	74	2	11	1	7
CASE	75	2	11	1	7
CASE	76	2	11	1	6
CASE	77	2	11	2	3
CASE	78	2	11	2	5
CASE	79	2	11	1	7
CASE	80	2	11	3	5
CASE	81	2	11	3	5
CASE	81	2	11	1	7

		FEDUC	MEDUC	FOCCUP	MOCCUP
CASE	1	2	2	9	2
CASE	2	4	4	1	1
CASE	3	2	2	3	1
CASE	4	3	3	9	1
CASE	5	4	4	2	1
CASE	6	2	5	2	9
CASE	7	2	2	2	1
CASE	8	4	4	1	1
CASE	9	0	2	0	2
CASE	10	2	2	2	1
CASE	11	2	2	3	4
CASE	12	4	4	1	1
CASE	13	2	4	1	2
CASE	14	4	2	2	6
CASE	15	2	2	1	1
CASE	16	4	4	1	6
CASE	17	2	2	2	4
CASE	18	4	2	1	6
CASE	19	4	3	1	2
CASE	20	3	3	1	2
CASE	21	0	3	0	1
CASE	22	2	2	2	1
CASE	23	2	2	4	1
CASE	24	0	5	0	7
CASE	25	5	2	5	7
CASE	26	0	2	0	2
CASE	27	2	2	2	1
CASE	28	2	2	2	1
CASE	29	0	2	0	1
CASE	30	4	2	1	9
CASE	31	2	2	1	1
CASE	32	2	3	1	1
CASE	33	4	3	1	6
CASE	34	2	2	3	6
CASE	35	3	2	4	4
CASE	36	3	2	1	6
CASE	37	0	2	0	6
CASE	38	2	2	2	2
CASE	39	1	2	9	6
CASE	40	4	3	9	1
CASE	41	3	4	3	1
CASE	42	0	1	0	5
CASE	43	2	3	4	2
CASE	44	0	2	0	4
CASE	45	2	3	2	1
CASE	46	0	1	0	7
CASE	47	0	1	0	4
CASE	48	0	2	0	4
CASE	49	2	3	4	1
CASE	50	2	2	4	1
CASE	51	0	2	0	7
CASE	52	4	4	1	1
CASE	53	2	2	1	4
CASE	54	4	2	1	6
CASE	55	2	4	1	6
CASE	56	4	4	1	6
CASE	57	4	4	9	1
CASE	58	4	4	1	6
CASE	59	4	4	1	2
CASE	60	4	2	1	6
CASE	61	2	3	1	1
CASE	62	2	2	2	4
CASE	63	5	1	5	7
CASE	64	3	3	1	1
CASE	65	2	2	8	8
CASE	66	2	2	1	1
CASE	67	0	0	0	0
CASE	68	0	2	0	4
CASE	69	2	2	9	1
CASE	70	4	4	1	1
CASE	71	0	2	0	7
CASE	72	4	4	1	1
CASE	73	4	2	1	6
CASE	74	4	2	1	6
CASE	75	2	4	2	1
CASE	76	0	2	0	6
CASE	77	0	2	0	1
CASE	78	3	4	9	6
CASE	79	0	4	0	2
CASE	80	0	2	0	4
CASE	81	4	4	1	6

		FAMSIZE	WAS	SCHOOL	MORAL TYP
CASE	1	7	235	1	2
CASE	2	4	250	1	1
CASE	3	7	216	1	1
CASE	4	9	215	1	1
CASE	5	5	243	1	1
CASE	6	5	208	1	1
CASE	7	7	231	1	1
CASE	8	5	237	1	1
CASE	9	3	254	1	1
CASE	10	5	223	1	1
CASE	11	3	208	1	2
CASE	12	4	203	1	1
CASE	13	5	180	1	1
CASE	14	7	240	1	1
CASE	15	5	235	1	1
CASE	16	6	200	1	1
CASE	17	4	218	1	1
CASE	18	3	266	1	1
CASE	19	6	185	1	1
CASE	20	7	169	1	1
CASE	21	2	250	1	1
CASE	22	6	200	2	1
CASE	23	4	209	1	2
CASE	24	7	223	2	1
CASE	25	10	238	2	1
CASE	26	5	280	1	1
CASE	27	6	232	2	1
CASE	28	5	257	1	1
CASE	29	5	243	1	1
CASE	30	4	182	1	1
CASE	31	7	243	1	2
CASE	32	5	219	1	2
CASE	33	5	236	1	1
CASE	34	7	216	1	1
CASE	35	6	244	1	1
CASE	36	5	243	1	1
CASE	37	5	291	1	1
CASE	38	4	262	1	1
CASE	39	4	292	1	1
CASE	40	5	257	1	1
CASE	41	5	285	1	1
CASE	42	6	215	2	1
CASE	43	6	261	0	2
CASE	44	7	286	2	1
CASE	45	6	235	0	1
CASE	46	8	271	0	1
CASE	47	6	307	2	2
CASE	48	2	254	2	1
CASE	49	6	322	1	1
CASE	50	5	301	0	2
CASE	51	10	281	2	2
CASE	52	4	276	1	1
CASE	53	4	316	1	2
CASE	54	5	291	1	2
CASE	55	4	289	1	1
CASE	56	4	268	1	1
CASE	57	5	296	1	1
CASE	58	5	296	1	1
CASE	59	4	276	1	1
CASE	60	4	306	1	1
CASE	61	5	284	0	2
CASE	62	12	284	0	1
CASE	63	9	277	0	2
CASE	64	5	315	0	2
CASE	65	5	289	0	2
CASE	66	9	246	0	1
CASE	67	9	317	0	1
CASE	68	9	273	0	1
CASE	69	3	284	0	2
CASE	70	5	298	0	2
CASE	71	11	266	0	1
CASE	72	7	307	0	1
CASE	73	5	341	0	2
CASE	74	4	353	0	1
CASE	75	4	313	0	2
CASE	76	4	446	0	2
CASE	77	4	315	0	2
CASE	78	4	359	0	1
CASE	79	3	280	0	2
CASE	80	5	270	0	2
CASE	81	4	350	0	2

		WAS1	WAS2	WAS3
CASE	1	257	250	186
CASE	2	271	250	221
CASE	3	225	150	236
CASE	4	193	188	286
CASE	5	221	275	221
CASE	6	157	263	229
CASE	7	236	138	271
CASE	8	200	250	264
CASE	9	221	238	271
CASE	10	143	188	250
CASE	11	231	188	221
CASE	12	136	200	236
CASE	13	179	150	207
CASE	14	214	183	279
CASE	15	221	200	271
CASE	16	257	175	157
CASE	17	243	225	186
CASE	18	288	275	243
CASE	19	200	200	157
CASE	20	171	138	193
CASE	21	264	225	258
CASE	22	300	150	193
CASE	23	192	125	271
CASE	24	207	250	243
CASE	25	221	225	208
CASE	26	329	238	279
CASE	27	207	213	264
CASE	28	207	263	264
CASE	29	214	315	250
CASE	30	150	175	279
CASE	31	179	275	257
CASE	32	200	250	207
CASE	33	207	250	257
CASE	34	194	188	229
CASE	35	229	225	257
CASE	36	271	225	243
CASE	37	279	313	293
CASE	38	236	313	271
CASE	39	306	263	286
CASE	40	236	250	307
CASE	41	294	275	279
CASE	42	200	250	225
CASE	43	286	238	286
CASE	44	279	263	300
CASE	45	236	238	250
CASE	46	250	263	300
CASE	47	325	300	300
CASE	48	286	250	271
CASE	49	350	275	314
CASE	50	314	313	293
CASE	51	286	275	279
CASE	52	300	213	279
CASE	53	356	300	293
CASE	54	257	313	293
CASE	55	286	288	286
CASE	56	264	300	279
CASE	57	357	313	243
CASE	58	243	275	314
CASE	59	279	263	279
CASE	60	286	275	343
CASE	61	329	250	286
CASE	62	238	288	314
CASE	63	300	237	279
CASE	64	293	325	307
CASE	65	293	300	283
CASE	66	219	200	286
CASE	67	209	313	329
CASE	68	186	313	307
CASE	69	271	288	292
CASE	70	269	300	314
CASE	71	279	238	275
CASE	72	292	363	257
CASE	73	319	275	329
CASE	74	393	338	364
CASE	75	300	312	307
CASE	76	493	450	450
CASE	77	306	350	364
CASE	78	357	350	371
CASE	79	229	275	336
CASE	80	269	263	271
CASE	81	386	338	329

		EQ1	EQ2	EQ3	EQ4
CASE	1	2	3	1	3
CASE	2	2	3	2	3
CASE	3	1	3	2	3
CASE	4	2	3	2	4
CASE	5	2	3	2	3
CASE	6	1	3	1	3
CASE	7	2	3	2	4
CASE	8	2	3	2	5
CASE	9	2	3	1	5
CASE	10	2	3	2	3
CASE	11	2	3	2	3
CASE	12	2	3	1	4
CASE	13	2	3	2	4
CASE	14	2	3	2	4
CASE	15	2	2	1	2
CASE	16	2	3	2	5
CASE	17	2	3	1	3
CASE	18	2	3	1	3
CASE	19	2	3	1	3
CASE	20	2	3	2	4
CASE	21	1	3	1	3
CASE	22	2	3	2	3
CASE	23	2	3	2	4
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CASE	25	1	3	1	2
CASE	26	2	2	1	1
CASE	27	2	3	2	3
CASE	28	1	3	2	3
CASE	29	2	3	1	3
CASE	30	2	3	2	4
CASE	31	1	3	2	4
CASE	32	2	3	2	4
CASE	33	2	3	2	3
CASE	34	2	3	2	3
CASE	35	1	3	2	4
CASE	36	2	3	1	4
CASE	37	2	3	2	3
CASE	38	2	3	2	3
CASE	39	2	3	2	3
CASE	40	2	3	2	3
CASE	41	2	3	2	3
CASE	42	2	3	2	2
CASE	43	2	2	1	2
CASE	44	2	3	1	2
CASE	45	2	3	2	3
CASE	46	2	3	1	2
CASE	47	2	3	2	2
CASE	48	1	3	1	2
CASE	49	1	3	2	3
CASE	50	2	3	2	2
CASE	51	1	3	1	2
CASE	52	2	3	2	4
CASE	53	2	3	2	3
CASE	54	1	3	2	6
CASE	55	2	3	2	3
CASE	56	2	3	2	4
CASE	57	2	3	2	3
CASE	58	2	3	2	9
CASE	59	2	3	2	4
CASE	60	2	3	2	3
CASE	61	2	3	2	4
CASE	62	2	3	2	3
CASE	63	2	3	1	3
CASE	64	2	3	1	4
CASE	65	2	3	1	3
CASE	66	2	3	1	4
CASE	67	2	3	2	3
CASE	68	2	3	2	3
CASE	69	2	3	2	3
CASE	70	2	3	1	3
CASE	71	1	3	1	2
CASE	72	2	3	2	3
CASE	73	2	3	2	4
CASE	74	2	3	2	3
CASE	75	2	3	2	4
CASE	76	2	3	2	3
CASE	77	2	2	1	3
CASE	78	2	3	2	3
CASE	79	2	2	1	3
CASE	80	2	3	2	3
CASE	81	2	3	2	4

		EQ5	EQ6	EQ7	EQ8
CASE	1	1	7	1,380	1
CASE	2	2	6	1,750	1
CASE	3	1	5	2	1
CASE	4	1	4	0	1
CASE	5	1	6	0	1
CASE	6	2	11	0	1
CASE	7	1	7	0	0
CASE	8	2	5	1,800	1
CASE	9	2	9	0	1
CASE	10	1	8	0	1
CASE	11	2	9	2	1
CASE	12	2	10	0	1
CASE	13	2	12	1,880	1
CASE	14	1	17	2	1
CASE	15	2	10	2	1
CASE	16	2	9	2	1
CASE	17	2	11	2	1
CASE	18	2	13	2	0.500
CASE	19	1	4	2	1
CASE	20	2	7	2	1
CASE	21	2	8	2	1
CASE	22	1	9	1	1
CASE	23	1	9	4	1
CASE	24	1	6	1	0
CASE	25	1	5	1,500	1
CASE	26	1	10	1	1
CASE	27	1	9	1	1
CASE	28	1	8	2	1
CASE	29	1	2	0	1
CASE	30	2	6	2	1
CASE	31	1	10	2	1
CASE	32	2	10	2	1
CASE	33	2	11	2	1
CASE	34	2	11	1,800	1
CASE	35	2	10	2	1
CASE	36	2	10	1,900	1
CASE	37	2	12	2	0
CASE	38	2	10	2	1
CASE	39	2	9	2	1
CASE	40	1	8	0	1
CASE	41	2	8	1,750	0
CASE	42	1	5	1,250	0
CASE	43	1	10	1	0
CASE	44	1	6	1,250	0
CASE	45	1	7	0	0
CASE	46	1	4	0	0
CASE	47	1	5	0	1
CASE	48	1	6	1	1
CASE	49	1	6	1,250	0
CASE	50	1	8	1,500	0
CASE	51	1	5	0	0
CASE	52	2	9	2	0.500
CASE	53	2	5	2	1
CASE	54	2	11	2	1
CASE	55	2	9	2	1
CASE	56	2	13	2	1
CASE	57	1	8	2	1
CASE	58	2	13	1,900	1
CASE	59	2	11	2	1
CASE	60	2	9	0	1
CASE	61	2	10	2	1
CASE	62	1	11	2,500	0
CASE	63	1	4	0	0
CASE	64	2	6	2	1
CASE	65	1	7	0	0
CASE	66	1	3	1,500	1
CASE	67	1	3	0	1
CASE	68	1	2	1,330	1
CASE	69	1	8	2	0
CASE	70	1	7	1	1
CASE	71	1	5	1,500	1
CASE	72	1	9	2,140	1
CASE	73	2	10	1,500	1
CASE	74	2	10	2	1
CASE	75	2	10	2	0.500
CASE	76	2	9	2	1
CASE	77	1	12	2	1
CASE	78	2	11	1,500	1
CASE	79	2	11	2	0
CASE	80	2	10	1,570	1
CASE	81	2	11	2	1

	EQ9	EQ10	EQ11	EQ12
CASE 1	0	1	1	2
CASE 2	0	1	1	1
CASE 3	0	0	1	1
CASE 4	1	0	1	2
CASE 5	0	0	0	1
CASE 6	1	1	1	2
CASE 7	0	0	1	1
CASE 8	0	0	1	2
CASE 9	1	1	1	2
CASE 10	1	0	1	1.500
CASE 11	1	1	1	1.500
CASE 12	1	0	1	2
CASE 13	1	0	1	1.500
CASE 14	1	1	1	2
CASE 15	1	1	1	2
CASE 16	1	1	1	2
CASE 17	1	1	1	2
CASE 18	1	0	1	2
CASE 19	1	1	1	2
CASE 20	1	1	1	2
CASE 21	0	1	1	2.500
CASE 22	1	1	1	3
CASE 23	0	0	1	1.500
CASE 24	1	1	0	1
CASE 25	1	1	1	3
CASE 26	1	1	1	1
CASE 27	1	1	1	3
CASE 28	1	1	1	2
CASE 29	0	0	1	1
CASE 30	1	1	1	2
CASE 31	1	1	1	2
CASE 32	1	1	1	2
CASE 33	1	1	1	2
CASE 34	1	1	1	2
CASE 35	1	0	1	1.500
CASE 36	1	1	1	2
CASE 37	1	1	1	2
CASE 38	1	1	1	2
CASE 39	1	1	1	3
CASE 40	1	1	1	2
CASE 41	1	1	1	1
CASE 42	0	0	0	1
CASE 43	1	1	1	3
CASE 44	1	1	0	1
CASE 45	0	0	1	1
CASE 46	0	0	0	3
CASE 47	1	1	1	1
CASE 48	1	1	0	1
CASE 49	0	0	0	1.500
CASE 50	0	0	0	1
CASE 51	1	1	0	1
CASE 52	1	1	1	2
CASE 53	1	1	1	2
CASE 54	1	0	1	2
CASE 55	0	1	1	2
CASE 56	1	1	1	3
CASE 57	1	1	1	2
CASE 58	1	1	1	2.500
CASE 59	1	1	1	2
CASE 60	1	1	1	2
CASE 61	1	1	1	2
CASE 62	1	1	0	1
CASE 63	0	0	0	1
CASE 64	1	1	1	1
CASE 65	0	0	0	2
CASE 66	1	0	0	1
CASE 67	1	1	0	1
CASE 68	1	1	0	3
CASE 69	0	1	1	1
CASE 70	0	0	1	1.500
CASE 71	1	1	1	1
CASE 72	1	1	1	2.500
CASE 73	1	1	1	2
CASE 74	1	1	1	2
CASE 75	1	1	1	2
CASE 76	0	0	1	2
CASE 77	1	1	1	2
CASE 78	1	1	1	2
CASE 79	1	1	1	2
CASE 80	1	0	1	1
CASE 81	1	1	1	2

	EQ13	EQ14	GES
CASE 1	3	1	27.380
CASE 2	3	1	27.750
CASE 3	3	0	23
CASE 4	2	1	24
CASE 5	2	1	22
CASE 6	3	1	31
CASE 7	3	1	25
CASE 8	3	1	28.800
CASE 9	3	1	32
CASE 10	3	1	27.500
CASE 11	2	1	31.500
CASE 12	3	1	31
CASE 13	2	1	32.430
CASE 14	3	1	41
CASE 15	3	1	31
CASE 16	3	1	35
CASE 17	2	1	33
CASE 18	3	1	34.500
CASE 19	3	1	25
CASE 20	3	1	32
CASE 21	3	1	29.500
CASE 22	3	1	32
CASE 23	2	1	31.500
CASE 24	3	0	21
CASE 25	3	0	24.500
CASE 26	3	0	26
CASE 27	3	1	32
CASE 28	3	1	30
CASE 29	2	0	17
CASE 30	3	1	31
CASE 31	3	1	33
CASE 32	3	1	35
CASE 33	3	1	35
CASE 34	3	1	33.800
CASE 35	3	1	32.500
CASE 36	3	1	33.900
CASE 37	3	1	34
CASE 38	3	1	34
CASE 39	3	1	34
CASE 40	3	0	28
CASE 41	3	1	29.750
CASE 42	3	1	21.250
CASE 43	3	0	28
CASE 44	2	1	22.250
CASE 45	2	0	22
CASE 46	3	1	20
CASE 47	3	0	23
CASE 48	2	1	22
CASE 49	2	0	20.750
CASE 50	2	1	23.500
CASE 51	2	1	19
CASE 52	3	1	33.500
CASE 53	3	0	28
CASE 54	3	1	36
CASE 55	3	1	32
CASE 56	3	1	39
CASE 57	3	1	31
CASE 58	3	1	41.400
CASE 59	3	1	36
CASE 60	3	1	31
CASE 61	3	1	35
CASE 62	2	0	29.500
CASE 63	2	1	18
CASE 64	2	1	28
CASE 65	3	1	23
CASE 66	3	0	21.500
CASE 67	2	1	21
CASE 68	3	0	23.330
CASE 69	2	0	26
CASE 70	1	0	27.500
CASE 71	2	1	22.500
CASE 72	3	1	30.640
CASE 73	3	1	34.500
CASE 74	3	1	34
CASE 75	3	0.500	34
CASE 76	3	1	31
CASE 77	3	0	32
CASE 78	3	1	34.500
CASE 79	3	0	31
CASE 80	3	0.500	31.700
CASE 81	3	1	36

	RTQ01	RTQ02	RTQ03	RTQ04	
CASE 1	1	1	1	3	4
CASE 2	0	0	0	1	0
CASE 3	1	1	2	3	4
CASE 4	1	1	1	1	2
CASE 5	1	1	1	1	1
CASE 6	1	1	2	3	3
CASE 7	1	1	1	1	0
CASE 8	1	1	2	3	2
CASE 9	1	1	1	1	0
CASE 10	1	1	1	3	1
CASE 11	1	1	2	1	1
CASE 12	1	1	2	3	2
CASE 13	1	1	1	1	3
CASE 14	1	1	1	1	4
CASE 15	1	1	1	1	1
CASE 16	1	1	2	1	3
CASE 17	1	1	1	3	1
CASE 18	0	0	0	3	4
CASE 19	1	1	1	2	2
CASE 20	1	1	2	1	2
CASE 21	1	1	1	3	2
CASE 22	1	1	1	1	2
CASF 23	1	1	1	1	3
CASE 24	1	1	4	1	0
CASE 25	1	1	1	1	1
CASE 26	1	1	1	1	2
CASE 27	1	1	1	3	2
CASE 28	1	1	2	0	4
CASE 29	1	1	2	1	2
CASE 30	1	1	2	2	2
CASE 31	0	0	0	2	2
CASE 32	1	1	1	1	2
CASE 33	1	1	2	2	2
CASE 34	1	1	1	3	0
CASE 35	0	0	0	1	2
CASE 36	0	0	0	3	1
CASE 37	0	0	0	2	1
CASE 38	0	0	0	1	0
CASE 39	0	0	0	2	3
CASE 40	1	1	3	1	1
CASE 41	1	1	1	1	2
CASE 42	1	1	2	0	4
CASE 43	1	1	1	1	0
CASE 44	1	1	1	1	2
CASE 45	0	0	0	0	0
CASE 46	0	0	0	1	1
CASE 47	1	1	2	1	2
CASE 48	1	1	5	1	2
CASE 49	1	1	3	0	3
CASE 50	0	0	0	2	2
CASE 51	1	1	4	0	2
CASE 52	1	1	1	2	2
CASE 53	0	0	0	3	0
CASE 54	1	1	2	2	3
CASE 55	0	0	0	1	3
CASE 56	1	1	1	2	3
CASE 57	1	1	1	3	2
CASE 58	0	0	0	2	2
CASE 59	0	0	0	3	1
CASE 60	0	0	0	2	3
CASE 61	1	1	1	2	3
CASE 62	1	1	2	1	0
CASE 63	1	1	3	0	2
CASE 64	1	1	4	1	2
CASE 65	1	1	5	1	1
CASE 66	1	1	5	3	2
CASE 67	1	1	3	2	0
CASE 68	1	1	5	1	1
CASE 69	0	0	0	1	4
CASE 70	1	1	5	1	2
CASE 71	0	0	0	1	4
CASE 72	1	1	5	2	1
CASE 73	1	1	3	2	1
CASE 74	0	0	0	2	2
CASE 75	1	1	1	3	1
CASE 76	1	1	5	3	0
CASE 77	0	0	0	3	4
CASE 78	1	1	2	1	3
CASE 79	0	0	0	3	1
CASE 80	0	0	0	1	1
CASE 81	1	1	2	3	0

		GRTO	R1QQ1	R1QQ2	R1QQ3
CASE	1	9	1	3	0
CASE	2	1	1	2	0
CASE	3	10	1	3	0
CASE	4	5	1	2	1
CASE	5	4	1	1	1
CASE	6	9	0	0	0
CASE	7	3	1	2	0
CASE	8	8	1	3	0
CASE	9	3	1	3	0
CASE	10	6	1	3	1
CASE	11	5	1	3	1
CASE	12	8	1	3	1
CASE	13	6	1	3	0
CASE	14	7	1	3	0
CASE	15	4	1	3	0
CASE	16	7	1	3	0
CASE	17	6	1	3	0
CASE	18	7	1	3	1
CASE	19	6	0	0	0
CASE	20	6	1	3	0
CASE	21	7	1	3	0
CASE	22	5	0	0	0
CASE	23	6	1	2	1
CASE	24	6	0	0	0
CASE	25	4	0	0	0
CASE	26	5	1	2	1
CASE	27	7	0	0	0
CASE	28	7	1	3	0
CASE	29	6	0	0	0
CASE	30	7	1	3	1
CASE	31	4	1	3	1
CASE	32	5	1	3	0
CASE	33	7	1	2	0
CASE	34	5	1	2	0
CASE	35	3	1	2	0
CASE	36	4	1	3	0
CASE	37	3	1	3	0
CASE	38	1	1	3	0
CASE	39	5	1	3	0
CASE	40	6	1	2	0
CASE	41	5	1	3	0
CASE	42	7	1	1	0
CASE	43	3	1	3	0
CASE	44	5	0	0	0
CASE	45	0	1	2	0
CASE	46	2	0	0	0
CASE	47	6	0	0	0
CASE	48	9	0	0	0
CASE	49	7	1	1	0
CASE	50	4	0	0	0
CASE	51	7	0	0	0
CASE	52	6	1	2	0
CASE	53	3	1	3	1
CASE	54	8	1	2	0
CASE	55	4	1	1	0
CASE	56	7	1	1	0
CASE	57	7	1	3	1
CASE	58	4	1	3	0
CASE	59	4	1	1	0
CASE	60	5	1	2	0
CASE	61	7	1	2	0
CASE	62	4	1	1	0
CASE	63	5	1	1	0
CASE	64	8	1	3	0
CASE	65	8	1	1	0
CASE	66	11	1	2	0
CASE	67	6	0	0	0
CASE	68	8	0	0	0
CASE	69	5	1	3	0
CASE	70	9	1	3	0
CASE	71	5	0	0	0
CASE	72	9	1	3	0
CASE	73	7	1	2	0
CASE	74	4	1	2	0
CASE	75	6	1	2	0
CASE	76	6	1	1	0
CASE	77	7	1	3	0
CASE	78	7	1	3	0
CASE	79	4	0	0	0
CASE	80	2	1	3	0
CASE	81	6	1	1	0

		LA001	LA002	LA003	LA004
CASE	1	4	6	1	8.500
CASE	2	2	1	2	0
CASE	3	3	6	1	0
CASE	4	0	0	0	0
CASE	5	2	6	1	4
CASE	6	5	2	1	6
CASE	7	4	2	2	5.500
CASE	8	2	6	2	5
CASE	9	0	0	0	0
CASE	10	4	2	1	0
CASE	11	4	5	2	2.250
CASE	12	2	2	2	9
CASE	13	4	6	1	7.750
CASE	14	6	5	1	9.500
CASE	15	5	6	1	R
CASE	16	4	6	2	7
CASE	17	5	5	2	R.330
CASE	18	5	5	1	R
CASE	19	3	2	2	0
CASE	20	3	6	1	R.500
CASE	21	6	6	1	R
CASE	22	1	1	2	0
CASE	23	3	2	2	6.670
CASE	24	3	1	1	6.500
CASE	25	3	2	1	7
CASE	26	4	2	2	R
CASE	27	1	1	2	0
CASE	28	3	4	2	0
CASE	29	0	0	0	0
CASE	30	1	2	2	0
CASE	31	2	3	2	R
CASE	32	3	3	2	R
CASE	33	3	4	1	6
CASE	34	3	2	1	0
CASE	35	3	6	2	7.500
CASE	36	5	6	2	8
CASE	37	4	4	1	7.500
CASE	38	2	6	2	0
CASE	39	3	4	1	7
CASE	40	2	4	2	R
CASE	41	4	2	1	R
CASE	42	4	6	2	6.250
CASE	43	3	1	1	7
CASE	44	3	6	1	5
CASE	45	2	2	2	0
CASE	46	1	5	2	0
CASE	47	1	2	1	7
CASE	48	2	6	1	6
CASE	49	3	1	1	5
CASE	50	3	1	1	7
CASE	51	4	4	1	7
CASE	52	2	3	2	7.500
CASE	53	6	1	6	0
CASE	54	2	3	1	8
CASE	55	1	5	2	9
CASE	56	4	6	2	6.250
CASE	57	4	5	2	6.330
CASE	58	6	5	1	6.800
CASE	59	2	6	2	8
CASE	60	0	0	0	0
CASE	61	2	5	2	8
CASE	62	3	2	1	5.670
CASE	63	2	3	2	0
CASE	64	3	3	2	5.670
CASE	65	1	3	2	5
CASE	66	2	6	2	6
CASE	67	1	6	2	0
CASE	68	2	3	2	9
CASE	69	4	3	1	5
CASE	70	5	4	1	6.830
CASE	71	3	2	1	4.330
CASE	72	5	6	1	7.250
CASE	73	4	6	2	7.750
CASE	74	6	5	1	6.330
CASE	75	3	6	2	8.670
CASE	76	2	2	2	6
CASE	77	7	5	1	R
CASE	78	4	6	1	7.670
CASE	79	2	2	2	0
CASE	80	4	6	2	7
CASE	81	3	6	1	0

		GR1Q	GLAQ	LAD	RIID
CASE	1	4	19.500	30	11
CASE	2	3	5	20	0
CASE	3	4	10	24	0
CASE	4	4	0	17	8
CASE	5	3	13	28	25
CASE	6	0	14	31	0
CASE	7	3	13.500	22	14
CASE	8	4	15	54	0
CASE	9	4	0	26	5
CASE	10	5	7	36	9
CASE	11	5	13.250	29	2
CASE	12	5	15	19	5
CASE	13	4	18.750	19	3
CASE	14	4	21.500	29	6
CASE	15	4	20	31	7
CASE	16	4	19	36	9
CASE	17	4	20.330	30	2
CASE	18	5	19	31	4
CASE	19	0	7	33	4
CASE	20	4	18.500	19	12
CASE	21	4	21	35	0
CASE	22	0	4	26	25
CASE	23	4	13.670	25	2
CASE	24	0	11.500	25	11
CASE	25	0	13	17	13
CASE	26	4	16	0	1
CASE	27	0	4	26	10
CASE	28	4	9	16	1
CASE	29	0	0	20	10
CASE	30	5	5	35	0
CASE	31	5	15	50	2
CASE	32	4	16	27	2
CASE	33	3	14	31	1
CASE	34	3	6	20	0
CASE	35	3	19.500	35	1
CASE	36	4	21	27	0
CASE	37	4	16.500	41	6
CASE	38	4	10	8	12
CASE	39	4	15	51	7
CASE	40	3	16	29	2
CASE	41	4	15	32	9
CASE	42	2	18.250	21	17
CASE	43	4	12	34	3
CASE	44	0	15	17	29
CASE	45	3	6	13	16
CASE	46	0	8	18	18
CASE	47	0	11	21	5
CASE	48	0	15	10	21
CASE	49	2	10	9	7
CASE	50	0	12	21	8
CASE	51	0	16	15	13
CASE	52	3	14.500	28	5
CASE	53	5	13	38	3
CASE	54	3	14	29	1
CASE	55	2	17	34	1
CASE	56	2	18.250	32	0
CASE	57	5	17.330	5	3
CASE	58	4	18.800	19	6
CASE	59	2	18	19	3
CASE	60	3	0	34	1
CASE	61	3	17	54	1
CASE	62	2	11.670	26	9
CASE	63	2	7	9	18
CASE	64	4	13.670	32	0
CASE	65	2	11	21	17
CASE	66	3	16	35	11
CASE	67	0	9	21	17
CASE	68	0	16	22	24
CASE	69	4	13	31	0
CASE	70	4	16.830	16	22
CASE	71	0	10.330	7	28
CASE	72	4	19.250	48	10
CASE	73	3	19.750	43	5
CASE	74	3	18.330	29	1
CASE	75	3	19.670	20	9
CASE	76	2	12	26	17
CASE	77	4	22	9	21
CASE	78	4	18.670	41	4
CASE	79	0	6	30	0
CASE	80	4	19	29	5
CASE	81	2	10	45	8

		FAMCO	RIO	LAWWAS	LIFEWAS
CASE	1	20	0	233	267
CASE	2	14	10	250	300
CASE	3	14	12	200	233
CASE	4	22	5	167	200
CASE	5	32	10	200	250
CASE	6	19	11	133	300
CASE	7	10	1	233	300
CASE	8	11	10	167	250
CASE	9	8	13	250	250
CASE	10	11	7	100	300
CASE	11	24	11	150	233
CASE	12	7	5	150	200
CASE	13	8	6	133	250
CASE	14	32	12	200	233
CASE	15	9	14	200	250
CASE	16	30	12	300	200
CASE	17	9	8	233	250
CASE	18	10	11	200	300
CASE	19	42	0	200	250
CASE	20	15	13	133	300
CASE	21	16	1	233	300
CASE	22	26	0	300	250
CASE	23	18	3	200	200
CASE	24	27	0	200	250
CASE	25	21	0	250	250
CASE	26	10	4	300	333
CASE	27	19	0	133	300
CASE	28	4	10	167	300
CASE	29	10	5	200	200
CASE	30	10	4	100	0
CASE	31	5	4	100	250
CASE	32	26	2	133	267
CASE	33	15	0	167	300
CASE	34	11	1	100	233
CASE	35	12	3	233	250
CASE	36	5	6	167	332
CASE	37	7	9	267	300
CASE	38	7	3	250	200
CASE	39	11	13	350	300
CASE	40	19	1	233	233
CASE	41	10	2	300	300
CASE	42	25	0	167	250
CASE	43	19	12	233	300
CASE	44	10	0	233	300
CASE	45	15	1	167	300
CASE	46	14	0	200	267
CASE	47	16	0	350	300
CASE	48	14	0	200	267
CASE	49	15	4	365	333
CASE	50	14	6	249	365
CASE	51	20	0	0	300
CASE	52	7	0	267	300
CASE	53	23	24	400	350
CASE	54	17	0	233	265
CASE	55	21	7	233	333
CASE	56	10	1	267	200
CASE	57	2	6	367	300
CASE	58	20	2	233	200
CASE	59	10	0	267	300
CASE	60	14	0	233	333
CASE	61	36	5	350	300
CASE	62	7	6	250	233
CASE	63	8	1	250	350
CASE	64	8	3	267	300
CASE	65	19	1	365	267
CASE	66	14	3	199	267
CASE	67	31	0	233	333
CASE	68	10	0	150	300
CASE	69	10	3	333	250
CASE	70	18	4	233	300
CASE	71	36	0	233	267
CASE	72	7	3	267	333
CASE	73	14	2	350	300
CASE	74	6	2	400	400
CASE	75	15	8	300	300
CASE	76	2	1	450	467
CASE	77	6	14	400	267
CASE	78	5	1	365	350
CASE	79	11	0	200	300
CASE	80	2	7	250	267
CASE	81	10	22	350	400

		HOWAS	PUNISIWA	CONTWAG	AUTIWAG
CASE	1	267	250	233	133
CASE	2	250	0	250	200
CASE	3	0	150	250	233
CASE	4	0	167	267	300
CASE	5	250	300	267	200
CASE	6	0	233	233	250
CASE	7	0	100	250	300
CASE	8	0	267	250	267
CASE	9	0	233	250	300
CASE	10	0	167	250	250
CASE	11	250	100	233	200
CASE	12	0	200	237	233
CASE	13	0	150	167	233
CASE	14	300	167	300	267
CASE	15	0	200	250	300
CASE	16	200	167	150	167
CASE	17	233	150	133	300
CASE	18	233	300	250	300
CASE	19	0	167	133	200
CASE	20	0	100	133	200
CASE	21	267	150	267	250
CASE	22	0	199	250	133
CASE	23	200	100	267	267
CASE	24	0	233	200	233
CASE	25	0	250	200	233
CASE	26	267	200	267	267
CASE	27	350	167	250	267
CASE	28	0	300	250	267
CASE	29	0	300	267	233
CASE	30	0	100	267	300
CASE	31	350	250	233	300
CASE	32	250	250	267	150
CASE	33	0	267	233	300
CASE	34	267	200	250	233
CASE	35	0	233	267	233
CASE	36	300	150	200	233
CASE	37	300	300	300	267
CASE	38	0	300	250	300
CASE	39	0	267	267	300
CASE	40	250	250	250	333
CASE	41	0	267	267	300
CASE	42	0	233	200	233
CASE	43	250	200	267	300
CASE	44	267	209	267	333
CASE	45	200	233	233	267
CASE	46	300	233	300	300
CASE	47	300	300	300	300
CASE	48	267	233	250	300
CASE	49	0	233	333	300
CASE	50	250	333	300	300
CASE	51	267	200	250	300
CASE	52	0	233	200	233
CASE	53	333	267	267	200
CASE	54	300	333	300	300
CASE	55	300	267	300	267
CASE	56	0	300	300	233
CASE	57	300	332	332	233
CASE	58	350	250	350	300
CASE	59	300	233	250	300
CASE	60	0	266	267	300
CASE	61	333	150	233	332
CASE	62	0	288	333	333
CASE	63	300	150	267	300
CASE	64	333	349	267	399
CASE	65	300	250	267	200
CASE	66	0	200	300	267
CASE	67	350	300	365	300
CASE	68	0	300	300	333
CASE	69	200	365	200	240
CASE	70	300	300	333	300
CASE	71	0	267	267	300
CASE	72	400	232	300	200
CASE	73	350	150	400	300
CASE	74	300	350	367	300
CASE	75	333	300	300	350
CASE	76	400	465	467	433
CASE	77	350	350	367	342
CASE	78	0	350	400	350
CASE	79	250	200	350	300
CASE	80	200	250	250	300
CASE	81	267	300	350	300

	BRFEDUC	BREOCC	SFS	S1
CASE 1	5	4	9	14,970
CASE 2	7	9	16	9,188
CASE 3	5	5	10	11,750
CASE 4	6	7	13	8,250
CASE 5	7	6	13	10,500
CASE 6	5	6	11	13,500
CASE 7	2	4	6	11,125
CASE 8	7	9	16	13,950
CASE 9	5	4	9	9,750
CASE 10	5	4	9	11,375
CASE 11	5	6	11	13,688
CASE 12	7	8	15	14,750
CASE 13	5	8	13	15,205
CASE 14	7	8	15	18,375
CASE 15	5	6	11	14,750
CASE 16	7	8	15	16,250
CASE 17	3	6	9	15,833
CASE 18	7	8	15	16,375
CASE 19	7	8	15	9,500
CASE 20	6	8	14	15,125
CASE 21	6	8	14	15,375
CASE 22	5	8	13	10,250
CASE 23	3	2	5	13,793
CASE 24	0	0	0	9,625
CASE 25	1	2	3	10,375
CASE 26	5	4	9	12,750
CASE 27	5	8	13	10,750
CASE 28	5	8	13	12,500
CASE 29	5	8	13	5,750
CASE 30	7	8	15	12
CASE 31	5	8	13	14,250
CASE 32	3	9	12	15
CASE 33	7	9	16	14,750
CASE 34	5	5	10	11,950
CASE 35	6	8	14	14,500
CASE 36	6	9	15	15,725
CASE 37	3	1	4	14,375
CASE 38	3	4	7	12,250
CASE 39	3	7	10	14,500
CASE 40	6	7	13	13,250
CASE 41	4	5	9	13,438
CASE 42	2	2	4	12,125
CASE 43	3	3	6	11,750
CASE 44	3	4	7	10,563
CASE 45	5	6	11	7,750
CASE 46	2	1	3	7,500
CASE 47	2	4	6	10
CASE 48	2	4	6	11,500
CASE 49	5	4	9	9,938
CASE 50	5	8	13	9,875
CASE 51	3	1	4	10,500
CASE 52	7	9	16	14,250
CASE 53	5	4	9	12,250
CASE 54	7	8	15	15,250
CASE 55	5	7	12	13,750
CASE 56	7	9	16	16,563
CASE 57	6	7	13	15,083
CASE 58	7	9	16	17,050
CASE 59	7	9	16	15
CASE 60	7	9	16	9,750
CASE 61	3	9	12	15,500
CASE 62	5	6	11	11,793
CASE 63	2	2	4	8
CASE 64	5	8	13	13,418
CASE 65	3	1	4	11
CASE 66	5	8	13	12,875
CASE 67	0	0	0	9
CASE 68	3	0	3	11,833
CASE 69	2	3	5	12
CASE 70	7	9	16	13,083
CASE 71	2	1	3	9,458
CASE 72	7	9	16	15,723
CASE 73	7	9	16	16,063
CASE 74	6	8	14	14,833
CASE 75	5	4	9	15,668
CASE 76	3	1	4	12,750
CASE 77	5	8	13	16,250
CASE 78	4	8	12	16,043
CASE 79	7	8	15	10,250
CASE 80	3	4	7	14,175
CASE 81	5	9	14	13,500

APPENDIX F

RELIABILITY TEST

PEARSON PRODUCT - MOMENT CORRELATION

Pearson Correlation Matrix

	WASK	WASP
WASK	1.000	
WASP	0.922	1.000

Number of observations: 8

APPENDIX G

LEVEL OF MORAL DEVELOPMENT

2 X 4 ANOVAS

AND

SCHEFFÉ TESTS

ANNOVA MEANS

African 10 - 12

The following results are for:

Race	=	1.000
Agegrp	=	1.000
Total observations:		10
		WAS
N of cases		10
Mean		231.200
Standard dev.		15.490

African 13 - 15

The following results are for:

Race	=	1.000
Agegrp	=	2.000
Total observations:		10
		WAS
N of cases		10
Mean		230.700
Standard dev.		28.527

African 16 - 18

The following results are for:

Race	=	1.000
Agegrp	=	3.000
Total observations:		10

WAS

N of cases	10
Mean	273.300
Standard dev.	33.150

African 19 - 28

The following results are for:

Race	=	1.000
Agegrp	=	4.000
Total observations:		10

WAS

N of cases	10
Mean	284.900
Standard dev.	21.605

White 10 - 12

The following results are for:

Race	=	2.000
Agegrp	=	1.000
Total observations:		11

WAS

N of cases	11
Mean	214.000
Standard dev.	30.835

White 13 - 15

The following results are for:

Race	=	2.000
Agegrp	=	2.000
Total observations:		10
		WAS
N of cases		10
Mean		254.500
Standard dev.		28.005

White 16 - 18

The following results are for:

Race	=	2.000
Agegrp	=	3.000
Total observations:		10
		WAS
N of cases		10
Mean		289.800
Standard dev.		14.597

White 19 - 28

The following results are for:

Race	=	2.000
Agegrp	=	4.000
Total observations:		10

	WAS
N of cases	10
Mean	333.400
Standard dev.	49.860

Levels encountered during processing are:

Agegrp

1.000	2.000	3.000	4.000
1.000	2.000		

Dep Var:	WAS	N:	81
Multiple R:	0.794	Squared multiple R:	0.631

Analysis of variance

Source	Sum-of-squares	DF	Mean-square	F-ratio	P
Agegrp	91980.041	3	30660.014	34.736	0.000
Race	6481.857	1	6481.857	7.344	0.008
Agegrp					
*race	11315.585	3	3771.862	4.273	0.008
Error	64433.200	73	882.647		

Scheffé tests

(Downie and Heath, 1974)

$$F = \frac{(M_1 - M_2)^2}{s_w^2 \left[\frac{N_1 + N_2}{N_1 \cdot N_2} \right]}$$

Age X Race Interaction

19 - 28 age group

$$\frac{(333.4 - 284.9)^2}{-----}$$

$$882.647 \left[\frac{10+10}{10 \cdot 10} \right]$$

$$= 13.32 \quad p < 0.01$$

Race X Age Interaction

Whites on age group

10 - 12 vs 13 - 15 age groups

$$\frac{(214 - 254.5)^2}{-----}$$

$$882.647 \left[\frac{10+11}{10 \cdot 11} \right]$$

$$= 9.73 \quad p 0.01$$

10 - 12 vs 16 - 18 age groups

$$\frac{(214 - 289.8)^2}{-----}$$

$$882.647 \left[\frac{10+11}{10 \cdot 11} \right]$$

$$= 34.10 \quad p < 0.01$$

10 - 12 vs 19 - 28 age groups

$$\frac{(214 - 333.4)^2}{882.647 \frac{10+11}{10.11}}$$

= 84.60 p < 0.001

13 - 15 vs 19 - 28 age groups

$$\frac{(254.5 - 333.4)^2}{882.647 \frac{10+10}{10.10}}$$

= 35.26 p < 0.01

16 - 19 vs 19 - 28 age groups

$$\frac{(289.8 - 333.4)^2}{882.647 \frac{10+10}{10.10}}$$

= 10.77 p < 0.01

Blacks on age group

10 - 12 vs 16 - 18 age groups

$$\frac{(231.2 - 273.3)^2}{882.647 \frac{10+10}{10.10}}$$

= 10.04 p < 0.01

10 - 12 vs 19 - 28 age groups

$$(231.2 - 284.9)^2$$

$$\frac{882.647}{\frac{10+10}{10.10}}$$

$$= 16.34 \quad p < 0.01$$

13 - 15 vs 16 - 18 age groups

$$(230.7 - 273.3)^2$$

$$\frac{882.647}{\frac{10+10}{10.10}}$$

$$= 10.28 \quad p < 0.01$$

13 - 15 vs 19 - 28 age groups

$$(230.7 - 284.9)^2$$

$$\frac{882.647}{\frac{10+10}{10.10}}$$

$$= 16.64 \quad p < 0.01$$

APPENDIX H

KOHLBERG'S UNIVERSALITY CLAIMS

PEARSON - PRODUCT MOMENT CORRELATION

Pearson correlation matrix

	WAS	TAGE
WAS	1.000	
TAGE	0.756	1.000

Number of observations: 81

APPENDIX I

MORAL ISSUES

SIX 2 X 4 ANOVAS

AND

SCHEFFÉ TESTS

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Dep Var: LIFEWAS N: 81 Multiple R: 0.521
Squared Multiple R: 0.271

Estimates of effects $B = (X'X)^{-1}X'Y$

		LIFEWAS
Constant		277.832
Race	1.000	-9.532
Agegrp	1.000	-24.605
Agegrp	2.000	-25.432
Agegrp	3.000	15.318
Race	1.000	
Agegrp	1.000	11.305
Race	1.000	
Agegrp	2.000	-9.568
Race	1.000	
Agegrp	3.000	14.582

Analysis of Variance

Source	Sum-ofsquare	DF	Mean-Square	F-Ratio	P
Race	7351.990	1	7351.990	2.639	0.109
Agegrp	54412.970	3	18137.657	6.510	0.001
Race*					
Agegrp	14085.382	3	4695.127	1.685	0.178
Error	203384.327	73	2786.087		

 Least Square Means

			Mean	SD	(N)
Race.	=	1.000	268.300	59.444	40
Race	=	2.000	287.364	58.018	41

Agegrp	=	1.000	253.227	36.020	21
Agegrp	=	2.000	252.400	72.317	20
Agegrp	=	3.000	293.150	42.893	20
Agegrp	=	4.000	312.550	58.197	20

Race	=	1.000			
Agegrp	=	1.000	255.000	37.754	10

Race	=	1.000			
Agegrp	=	2.000	233.300	92.256	10

Race	=	1.000			
Agegrp	=	3.000	298.200	33.266	10

Race	=	1.000			
Agegrp	=	4.000	286.700	36.630	10

Race	=	2.000			
Agegrp	=	1.000	251.455	36.131	11

Race	=	2.000			
Agegrp	=	2.000	271.500	41.457	10

Race	=	2.000			
Agegrp	=	3.000	288.100	52.161	10

Race	=	2.000			
Agegrp	=	4.000	338.400	65.752	10

Least Square Means

			Mean	SD	(N)
Race	=	1.000	214.000	75.232	40
Race	=	2.000	258.005	85.705	41

Agegrp	=	1.000	193.559	49.565	21
Agegrp	=	2.000	207.500	74.441	20
Agegrp	=	3.000	250.700	89.820	20
Agegrp	=	4.000	292.250	80.028	20

Race	=	1.000			
Agegrp	=	1.000	193.300	50.986	10
Race	=	1.000			
Agegrp	=	2.000	195.000	72.899	10
Race	=	1.000			
Agegrp	=	3.000	216.400	102.085	10
Race	=	1.000			
Agegrp	=	4.000	251.300	61.332	10
Race	=	2.000			
Agegrp	=	1.000	193.818	50.730	11
Race	=	2.000			
Agegrp	=	2.000	220.000	77.699	10
Race	=	2.000			
Agegrp	=	3.000	285.000	63.212	10
Race	=	2.000			
Agegrp	=	4.000	333.200	77.669	10

Levels encountered during processing are:

Race 1.000 2.000
Agegrp 1.000 2.000 3.000 4.000

Dep Var: MCWAS N: 81 Multiple R: 0.455
Squared Multiple R: 0.207

Estimates of effects $B = (X'X)^{-1}X'Y$

		MCWAS
Constant		172.490
Race	1.000	-27.040
Agegrp	1.000	-66.731
Agegrp	2.000	-45.790
Agegrp	3.000	43.360
Race	1.000	
Agegrp	1.000	-2.019
Race	1.000	
Agegrp	2.000	17.040
Race	1.000	
Agegrp	3.000	21.290

Analysis of Variance

Source	Sum - of - squares	DF	Mean-Square	F-Ratio	P
Race	59164.266	1	59164.266	3.089	0.083
Agegrp	268449.714	3	89483.238	4.671	0.005
Race*					
Agegrp	41326.208	3	13775.403	0.719	0.544
Error	1398379.336	73	19155.881		

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Dep Var: LAWVAS N: 81 Multiple R: 0.574
 Squared Multiple R: 0.330

Estimates of effects $B = (X'X)^{-1}X'Y$

		LAWVAS
Constant		236.002
Race	1.000	-22.002
Agegrp	1.000	-42.443
Agegrp	2.000	-28.502
Agegrp	3.000	14.698
Race	1.000	
Agegrp	1.000	21.743
Race	1.000	
Agegrp	2.000	9.502
Race	1.000	
Agegrp	3.000	-12.298

Analysis of Variance

Source	Sum - of - squares	DF	Mean-Square	F-Ratio	P
Race	39173.150	1	39173.150	7.746	0.007
Agegrp	121568.122	3	40522.707	8.012	0.000
Race*					
Agegrp	21911.148	3	7303.716	1.444	0.237
Error	369193,836	73	5057.450		

Least Square Means

			Mean	SD	(N)
Race	=	1.000	145.450	143.991	40
Race	=	2.000	199.530	149.953	41

Agegrp	=	1.000	105.759	127.981	21
Agegrp	=	2.000	126.700	147.170	20
Agegrp	=	3.000	215.850	132.053	20
Agegrp	=	4.000	241.650	150.188	20

Race	=	1.000			
Agegrp	=	1.000	76.700	123.585	10

Race	=	1.000			
Agegrp	=	2.000	116.700	156.383	10

Race	=	1.000			
Agegrp	=	3.000	210.100	114.235	10

Race	=	1.000			
Agegrp	=	4.000	178.300	158.282	10

Race	=	2.000			
Agegrp	=	1.000	134.818	131.313	11

Race	=	2.000			
Agegrp	=	2.000	136.700	145.075	10

Race	=	2.000			
Agegrp	=	3.000	221.600	153.916	10

Race	=	2.000			
Agegrp	=	4.000	305.000	116.823	10

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Dep Var: CONTWAS N: 81 Multiple R: 0.726
 Squared Multiple R: 0.527

Estimates of effects $B = (X'X)^{-1}X'Y$

		CONTWAS
Constant		271.240
Race	1.000	-4.990
Agegrp	1.000	-43.831
Agegrp	2.000	-21.140
Agegrp	3.000	8.710
Race	1.000	
Agegrp	1.000	27.581
Race	1.000	
Agegrp	2.000	-0.010
Race	1.000	
Agegrp	3.000	-4.960

Analysis of Variance

Source	Sum -of - squares	DF	Mean-Square	F-Ratio	P
Race	2014.721	1	2014.721	1.136	0.290
Agegrp	113990.119	3	37996.706	21.421	0.000
Race*					
Agegrp	26646.354	3	8882.118	5.007	0.003
Error	129486.136	73	1773.783		

 Least Square Means

			Mean	SD	(N)
Race	=	1.000	266.250	35.968	40
Race	=	2.000	276.230	74.518	41

Agegrp	=	1.000	227.409	50.297	21
Agegrp	=	2.000	250.100	26.046	20
Agegrp	=	3.000	279.950	42.555	20
Agegrp	=	4.000	327.500	56.196	20

Race	=	1.000			
Agegrp	=	1.000	250.000	11.333	10

Race	=	1.000			
Agegrp	=	2.000	245.100	26.257	10

Race	=	1.000			
Agegrp	=	3.000	270.000	39.095	10

Race	=	1.000			
Agegrp	=	4.000	299.900	34.575	10

Race	=	2.000			
Agegrp	=	1.000	204.818	62.248	11

Race	=	2.000			
Agegrp	=	2.000	255.100	26.215	10

Race	=	2.000			
Agegrp	=	3.000	289.900	45.547	10

Race	=	2.000			
Agegrp	=	4.000	355.100	61.470	10

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Dep Var: AUTHWAS N: 81 Multiple R: 0.530
 Squared Multiple R: 0.281

Estimates of effects $B = (X'X)^{-1}X'Y$

		AUTHWAS
Constant		274.601
Race	1.000	-0.926
Agegrp	1.000	-32.497
Agegrp	2.000	-17.151
Agegrp	3.000	11.949
Race	1.000	
Agegrp	1.000	2.122
Race	1.000	
Agegrp	2.000	-6.524
Race	1.000	
Agegrp	3.000	7.676

Analysis of Variance

Source	Sum -of - squares	DF	Mean-Square	F-Ratio	P
Race	69.407	1	69.407	0.032	0.859
Agegrp	59277.300	3	19759.100	9.105	0.000
Race*					
Agegrp	2338.300	3	779.433	0.359	0.783
Error	158423.009	73	2170.178		

Least Square Means

			Mean	SD	(N)
Race	=	1.000	273.675	50.331	40
Race	=	2.000	275.527	55.094	41

Agegrp	=	1.000	242.105	49.089	21
Agegrp	=	2.000	257.450	50.077	20
Agegrp	=	3.000	286.550	31.312	20
Agegrp	=	4.000	312.300	49.394	20

Race	=	1.000			
Agegrp	=	1.000	243.300	54.076	10
Race	=	1.000			
Agegrp	=	2.000	250.000	47.972	10
Race	=	1.000			
Agegrp	=	3.000	293.300	26.285	10
Race	=	1.000			
Agegrp	=	4.000	308.100	40.842	10
Race	=	2.000			
Agegrp	=	1.000	240.909	46.741	11
Race	=	2.000			
Agegrp	=	2.000	264.900	53.567	10
Race	=	2.000			
Agegrp	=	3.000	279.800	35.745	10
Race	=	2.000			
Agegrp	=	4.000	316.500	58.680	10

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Dep Var: PUNISHWAS N: 81 Multiple R: 0.607
 Squared Multiple R: 0.369

Estimates of effects $B = (X'X)^{-1}X'Y$

		PUNISHWAS
Constant		242.209
Race	1.000	-7.659
Agegrp	1.000	-64.723
Agegrp	2.000	-13.059
Agegrp	3.000	24.191
Race	1.000	
Agegrp	1.000	16.873
Race	1.000	
Agegrp	2.000	-11.591
Race	1.000	
Agegrp	3.000	5.959

Analysis of Variance

Source	Sum -of - squares	DF	Mean-Square	F-Ratio	P
Race	4746.876	1	4746.876	1.138	0.290
Agegrp	160277.756	3	53425.919	12.803	0.000
Race*					
Agegrp	11886.081	3	3962.027	0.949	0.421
Error	304633.582	73	4173.063		

Least Square Means

			Mean	SD	(N)
Race	=	1.000	234.550	76.572	40
Race	=	2.000	249.868	79.122	41

Agegrp	=	1.000	177.486	71.954	21
Agegrp	=	2.000	229.150	61.661	20
Agegrp	=	3.000	266.400	47.005	20
Agegrp	=	4.000	295.800	73.719	20

Race	=	1.000			
Agegrp	=	1.000	186.700	89.490	10
Race	=	1.000			
Agegrp	=	2.000	209.900	71.646	10
Race	=	1.000			
Agegrp	=	3.000	264.700	43.300	10
Race	=	1.000			
Agegrp	=	4.000	276.900	64.569	10
Race	=	2.000			
Agegrp	=	1.000	168.273	54.492	11
Race	=	2.000			
Agegrp	=	2.000	248.400	45.498	10
Race	=	2.000			
Agegrp	=	3.000	268.100	52.756	10
Race	=	2.000			
Agegrp	=	4.000	314.700	80.683	10

Scheffé Tests (Downie and Heath, 1974)

Age effects

Life Issue

10 - 12 vs 19 - 28 age groups

$$(253.227 - 312.55)^2$$

$$\frac{2786.087}{\frac{21+20}{21.20}}$$

$$= 12.94 \quad p < 0.01$$

13 - 15 vs 19 - 28 age groups

$$(252.4 - 312.55)^2$$

$$\frac{2786.087}{\frac{20+20}{20.20}}$$

$$= 12.99 \quad p < 0.01$$

Law Issue

10 - 12 vs 19 - 28 age groups

$$(193.559 - 292.25)^2$$

$$\frac{5057.45}{\frac{21+20}{21.20}}$$

$$= 19.73 \quad p < 0.01$$

13 - 15 vs 19 - 28 age groups

$$(207.5 - 292.25)^2$$

$$\frac{5057.45}{\frac{20+20}{20.20}}$$

$$= 14.20 \quad p < 0.01$$

Morality and Conscience Issue

10 - 12 vs 19 - 28 age groups

$$\frac{(105.759 - 241.65)^2}{\text{-----}}$$

$$19155.881 \quad \left[\begin{array}{c} 21+20 \\ \text{-----} \\ 21.20 \end{array} \right]$$

$$= 9.88 \quad p < 0.05$$

Punishment Issue

10 - 12 vs 16 - 18 age groups

$$\frac{(177.486 - 266.4)^2}{\text{-----}}$$

$$4173.063 \quad \left[\begin{array}{c} 21+20 \\ \text{-----} \\ 21.20 \end{array} \right]$$

$$= 19.41 \quad p < 0.01$$

10 - 12 vs 19 - 28 age groups

$$\frac{(177.486 - 295.8)^2}{\text{-----}}$$

$$4173.063 \quad \left[\begin{array}{c} 21+20 \\ \text{-----} \\ 21.20 \end{array} \right]$$

$$= 34.36 \quad p < 0.01$$

13 - 15 vs 18 - 28 age groups

$$\frac{(229.15 - 295.8)^2}{\text{-----}}$$

$$4173.063 \quad \left[\begin{array}{c} 20+20 \\ \text{-----} \\ 20.20 \end{array} \right]$$

$$= 10.64 \quad p < 0.05$$

Contract Issue

10 - 12 vs 19 - 28 age groups

$$\frac{(227.409 - 327.5)^2}{\text{-----}}$$

$$1773.783 \quad \left[\begin{array}{c} 21+20 \\ \text{-----} \\ 21.20 \end{array} \right]$$

$$= 14.49 \quad p < 0.01$$

13 - 15 vs 19 - 28 age groups

$$\frac{(250.1 - 327.5)^2}{\text{-----}}$$

$$1773.783 \quad \left[\begin{array}{c} 20+20 \\ \text{-----} \\ 20.20 \end{array} \right]$$

$$= 33.77 \quad p < 0.01$$

16 - 18 vs 19 - 28 age groups

$$\frac{(279.95 - 327.5)^2}{\text{-----}}$$

$$1773.783 \quad \left[\begin{array}{c} 20+20 \\ \text{-----} \\ 20.20 \end{array} \right]$$

$$= 12.75 \quad p < 0.01$$

Authority Issue

10 -12 vs 16 - 18 age groups

$$\frac{(242.105 - 286.55)^2}{\text{-----}}$$

$$2170.178 \quad \left[\begin{array}{c} 21+20 \\ \text{-----} \\ 21.20 \end{array} \right]$$

$$= 9.32 \quad p < 0.05$$

10 - 12 vs 19 - 28 age groups

$$\frac{(242.105 - 312.3)^2}{2170.178} \left[\frac{21+20}{21.20} \right]$$

= 23.26 p < 0.01

13 - 15 vs 19 - 28 age groups

$$\frac{(257.45 - 312.3)^2}{2170.178} \left[\frac{20+20}{20.20} \right]$$

= 13.86 p < 0.01

Race X Age Interaction Effects

Contract Issue

Whites on age group

10 - 12 vs 16 - 18 age groups

$$\frac{(204.818 - 289.9)^2}{1773.783} \left[\frac{11+10}{11.10} \right]$$

= 21.38 p < 0.01

10 - 12 vs 19 - 28 age groups

$$\frac{(204.818 - 355.1)^2}{1773.783} \left[\frac{11+10}{11.10} \right]$$

= 66.69 p < 0.01

13 - 15 vs 19 28 age groups

$$\frac{(255.1 - 355.1)^2}{1773.783 \left[\frac{10+10}{10.10} \right]}$$

= 28.19 p < 0.01

16 - 18 vs 19 - 28 age groups

$$\frac{(289.9 - 355.1)^2}{1773.783 \left[\frac{10+10}{10.10} \right]}$$

11.98 p < 0.05

Blacks on age group

13 -15 vs 19 - 28 age groups

$$\frac{(245.1 - 299.9)^2}{1773.783 \left[\frac{10+10}{10.10} \right]}$$

= 8.47 p < 0.05

APPENDIX J

MORAL ORIENTATIONS

2 X 4 X 4 ANOVA WITH REPEATED MEASURES

AND

SCHEFFÉ TESTS

Levels encountered during processing are:

Race	1.000	2.000		
Agegrp	1.000	2.000	3.000	4.000

Number of cases processed: 81

Dependent variable means

	GPNORM	GPUTIL	GPPERF	GPFAIR
	28.455	34.822	25.439	11.287

LEAST SQUARES MEANS.

Race 1.000 N of cases = 40.000

	GPNORM	GPUTIL	GPPERF	GPFAIR
Mean	29.075	35.911	24.324	10.698
Standard Dev.	14.728	13.266	12.229	10.048

Race 2.000 N of cases = 41.000

	GPNORM	GPUTIL	GPPERF	GPFAIR
Mean	27.645	33.437	26.847	12.071
Standard Dev.	13.465	14.802	14.361	12.202

Agegrp 1.000 N of cases = 21.000

	GPNORM	GPUTIL	GPPERF	GPFAIR
Mean	37.933	38.791	17.194	6.082
Standard Dev.	15.455	14.404	10.990	6.815

Agegrp 2.000 N of cases = 20.000

	GPNORM	GPUTIL	GPPERF	GPFAIR
Mean	29.503	37.872	24.092	8.535
Standard Dev.	13.827	11.331	11.653	7.206

Agegrp	3.000	N of cases =		20.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		24.903	31.770	30.939	12.398
Standard Dev.		11.297	13.416	14.070	9.067

Agegrp	4.000	N of cases =		20.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		21.100	30.264	30.119	18.523
Standard Dev.		9.459	15.439	12.266	15.600

Race	1.000	N of cases =		10.000	
Agegrp	1.000				
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		39.786	30.929	20.650	8.635
Standard Dev.		13.796	13.121	11.006	7.688

Race	1.000	N of cases =		10.000	
Agegrp	2.000				
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		32.612	37.564	21.675	8.150
Standard Dev.		16.034	10.680	13.228	7.288

Race	1.000	N of cases =		10.000	
Agegrp	3.000				
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		23.327	35.449	31.719	9.535
Standard Dev.		11.684	16.520	12.546	8.150

Race	1.000	N of cases =		10.000	
Agegrp	4.000				
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		20.574	39.703	23.253	16.470
Standard Dev.		9.882	12.516	10.473	14.435

Race	2.000				
Agegrp	1.000	N of cases	=	11.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		36.080	46.654	13.738	3.528
Standard Dev.		17.299	11.422	10.370	5.103

Race	2.000				
Agegrp	2.000	N of cases	=	10.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		26.393	38.179	26.508	8.920
Standard Dev.		11.183	12.521	9.936	7.495

Race	2.000				
Agegrp	3.000	N of cases	=	10.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		26.479	28.091	30.158	15.261
Standard Dev.		11.286	8.773	16.099	9.430

Race	2.000				
Agegrp	4.000	N of cases	=	10.000	
		GPNORM	GPUTIL	GPPERF	GPFAIR
Mean		21.626	20.825	36.984	20.575
Standard Dev.		9.520	12.188	10.160	17.205

Univariate and multivariate repeated measures analysis

 * Between subjects effects *

Test for effect called: Race

Null hypothesis contrast ABC'
 0.004

Inverse contrast $A(X'X)^{-1}A'$
 0.012

Test of hypothesis

Source	SS	DF	MS	F	P
Hypothesis	0.000	1	0.000	0.955	0.332
Error	0.025	73	0.000		

Test for effect called: Agegrp

Null hypothesis contrast ABC'

1	-0.004
2	-0.003
3	0.006

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3
1	0.036		
2	-0.012	0.037	
3	-0.012	-0.013	0.037

Test of hypothesis

Source	SS	DF	MS	F	P
Hypothesis	0.000	3	0.000	0.295	0.829
Error	0.025	73	0.000		

Test for effect called: Race*Agegrp

Null hypothesis contrast ABC'

1	-0.004
2	-0.003
3	0.017

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3
1	0.036		
2	-0.012	0.037	
3	-0.012	-0.013	0.037

Test of hypothesis

Source	SS	DF	MS	F	P
Hypothesis	0.002	3	0.001	1.879	0.141
Error	0.025	73	0.000		

* Within subject effects *

+ Trials Factor: a +

Test for effect called: Constant

Null hypothesis contrast ABC'

1	-13.420
2	-10.258
3	2.301

Inverse contrast $A(X'X)^{-1}A'$
0.012

Hypothesis sum of product matrix $H = CB'A'(A(X'X)^{-1}A')^{-1}ABC'$

	1	2	3
1	14572.613		
2	11139.281	8514.847	
3	-2498.672	-1909.981	428.431

Error sum of product matrix $G = CE'EC'$

	1	2	3
1	14576.549		
2	-2819.266	11668.090	
3	-902.948	-1611.278	15165.069

SINGLE DEGREE - OF - FREEDOM POLYNOMIAL CONTRASTS

Degree	SS	DF	MS	F	P
1	14572.613	3	14572.613	72.980	0.000
Error	14576.549	73	199.679		
2	8514.847	1	8514.847	53.272	0.000
Error	11668.090	73	159.837		
3	428.431	1	428.431	2.062	0.155
Error	15165.069	73	207.741		

Univariate repeated measures F - test

Source	SS	DF	MS	F	P
Hypothesis	23515.892	3	7838.631	41.455	0.000
Error	41409.708	219	189.085		

Multivariate test statistics

WILKS' LAMBDA	=	0.312				
F - STATISTICS	=	52.152	DF = 3,	71	PROB =	0.000
PILLAI TRACE	=	0.688				
F - STATISTICS	=	52.152	DF = 3,	71	PROB =	0.000
HOTELLING -						
LAWLEY TRACE	=	2.204				
F - STATISTICS	=	52.152	DF = 3,	71	PROB =	0.000

Test for effect called: Race

Null hypothesis contrast ABC'

1	-1.499
2	0.026
3	1.363

Inverse contrast $A(X'X)^{-1}A'$
0.012

Hypothesis sum of product matrix $H = CB'A'(A(X'X)^{-1}A')^{-1}ABC'$

	1	2	3
1	181.848		
2	-3.197	0.056	
3	-165.283	2.905	150.227

Error sum of product matrix $G = CE'EC'$

	1	2	3
1	14576.549		
2	-2819.266	11668.090	
3	-902.948	-1611.278	15165.069

SINGLE DEGREE - OF - FREEDOM POLYNOMIAL CONTRASTS

Degree	SS	DF	MS	F	P
1	181.848	1	181.848	0.911	0.343
Error	14576.549	73	199.679		
2	0.056	1	0.056	0.000	0.985
Error	11668.090	73	159.837		
3	1550.227	1	150.227	0.723	0.398
Error	15165.069	73	207.741		

Univariate repeated measures F - test

Source	SS	DF	MS	F	P
Hypothesis	332.131	3	110.710	0.586	0.625
Error	41409.708	219	189.085		

Multivariate test statistics

WILKS' LAMBDA = 0.979
F - STATISTICS = 0.502 DF = 3, 71 PROB = 0.682

PILLAI TRACE = 0.021
F - STATISTICS = 0.502 DF = 3, 71 PROB = 0.682

HOTELLING -
LAWLEY TRACE = 0.021
F - STATISTICS = 0.502 DF = 3, 71 PROB = 0.682

Test for effect called: Agegrp

Null hypothesis contrast ABC'

	1	2	3
1	-12.776	4.273	5.065
2	-3.727	-1.705	2.254
3	4.845	-2.446	-4.539

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3
1	0.036		
2	-0.012	0.037	
3	-0.012	-0.013	0.037

Hypothesis sum of product matrix $H = CB'A'(A(X'X)^{-1}A')^{-1}ABC'$

	1	2	3
1	6883.800		
2	-1281.496	560.337	
3	-2611.104	605.115	1205.474

Error sum of product matrix $G = CE'EC'$

	1	2	3
1	14576.549		
2	-2819.266	11668.090	
3	-902.948	-1611.278	15165.069

SINGLE DEGREE - OF - FREEDOM POLYNOMIAL CONTRASTS

Degree	SS	DF	MS	F	P
1	6883.800	3	2294.600	11.491	0.000
Error	14576.549	73	199.679		
2	560.337	3	186.779	1.169	0.328
Error	11668.090	73	159.837		
3	1205.474	3	401.825	1.934	0.132
Error	15165.069	73	207.741		

Univariate repeated measures F - test

Source	SS	DF	MS	F	P
Hypothesis	8649.610	9	961.068	5.083	0.000
Error	41409.708	219	189.085		

Multivariate test statistics

WILKS' LAMBDA = 0.629
 F - STATISTICS = 4.029 DF = 9, 172 PROB = 0.000
 PILLAI TRACE = 0.386
 F - STATISTICS = 3.592 DF = 9, 219 PROB = 0.000
 HOTELLING -
 LAWLEY TRACE = 0.565
 F - STATISTICS = 4.376 DF = 9, 209 PROB = 0.000
 Theta = 0.342 S = 3, M = -.5, N = 34.5 PROB = 0.000

Test for effect called: RACE*AGEGRP

Null hypothesis contrast ABC'

	1	2	3
1	4.500	4.380	-8.798
2	-1.317	2.698	-0.729
3	-0.012	-4.476	0.294

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3
1	0.036		
2	-0.012	0.037	
3	-0.012	-0.013	0.037

Hypothesis sum of product matrix $H = CB'A'(A(X'X)^{-1}A')^{-1}ABC'$

	1	2	3
1	659.760		
2	507.824	1083.392	
3	-1395.488	-1353.265	3338.622

Error sum of product matrix $G = CE'EC'$

	1	2	3
1	14576.549		
2	-2819.266	11668.090	
3	-902.948	-1611.278	15165.069

SINGLE DEGREE - OF - FREEDOM POLYNOMIAL CONTRASTS

Degree	SS	DF	MS	F	P
1	659.760	3	219.920	1.101	0.354
Error	14576.549	73	199.679		
2	1083.392	3	361.131	2.259	0.089
Error	11668.090	73	159.837		
3	3338.622	3	1112.874	5.357	0.002
Error	15165.069	73	207.741		

Univariate repeated measures F - test

Source	SS	DF	MS	F	P
Hypothesis	5081.775	9	564.642	2.986	0.002
Error	41409.708	219	189.085		

Multivariate test statistics

WILKS' LAMBDA	=	0.736				
F - STATISTICS	=	2.574	DF = 9,	172	PROB =	0.008
PILLAI TRACE	=	0.274				
F - STATISTICS	=	2.443	DF = 9,	219	PROB =	0.011
HOTELLING -						
LAWLEY TRACE	=	0.344				
F - STATISTICS	=	2.665	DF = 9,	209	PROB =	0.006
Theta	=	0.230	S = 3, M = -.5,	N = 34.5	PROB =	0.005

Scheffé Tests (Downie and Heath, 1974)

Race X Age X Orientation

Blacks

10 - 12 age group

Normative vs Perfectionist Orientation

$$(39.786 - 20.65)^2$$

$$189.085 \quad \left[\begin{array}{c} 10+10 \\ \hline 10.10 \end{array} \right]$$

$$= 9.68 \quad p < 0.05$$

Normative vs Fairness Orientation

$$(39.786 - 8.635)^2$$

$$189.085 \quad \left[\begin{array}{c} 10+10 \\ \hline 10.10 \end{array} \right]$$

$$= 25.67 \quad p < 0.01$$

Utilitarian vs Fairness Orientation

$$(30.929 - 8.635)^2$$

$$189.085 \quad \left[\begin{array}{c} 10+10 \\ \hline 10.10 \end{array} \right]$$

$$= 13.14 \quad p < 0.05$$

Whites

10 - 12 age group

Normative vs Perfectionist Orientation

$$(36.08 - 13.738)^2$$

$$189.085 \quad \left[\begin{array}{c} 11+11 \\ \hline 11.11 \end{array} \right]$$

$$= 14.52 \quad p < 0.01$$

Normative vs Fairness Orientation

$$(36.08 - 3.528)^2$$

$$189.085 \frac{[11+11]}{[11.11]}$$

$$= 30.82 \quad p < 0.01$$

Utilitarian vs Perfectionist Orientation

$$(46.654 - 13.738)^2$$

$$189.085 \frac{[11+11]}{[11.11]}$$

$$= 31.52 \quad p < 0.01$$

Utilitarian vs Fairness Orientation

$$(46.654 - 3.528)^2$$

$$189.085 \frac{[11+11]}{[11.11]}$$

$$= 54.1 \quad p < 0.01$$

Blacks

13 - 15 age group

Normative vs Fairness Orientation

$$(32.612 - 8.15)^2$$

$$189.085 \frac{[10+10]}{[10.10]}$$

$$= 15.82 \quad p < 0.01$$

Utilitarian vs Fairness Orientation

$$\frac{(37.564 - 8.15)^2}{189.085 \left[\frac{10+10}{10.10} \right]} = 22.88 \quad p < 0.01$$

Whites

13 - 15 age group

Utilitarian vs Fairness Orientation

$$\frac{(38.179 - 8.92)^2}{189.085 \left[\frac{10+10}{10.10} \right]} = 22.64 \quad p < 0.01$$

Blacks

16 - 18 age group

Utilitarian vs Fairness Orientation

$$\frac{(35.449 - 9.535)^2}{189.085 \left[\frac{10+10}{10.10} \right]} = 17.76 \quad p < 0.01$$

Perfectionist vs Fairness Orientation

$$\frac{(31.719 - 9.535)^2}{189.085 \left[\frac{10+10}{10.10} \right]} = 13.01 \quad p < 0.05$$

Blacks

19 - 28 age group

Normative vs Utilitarian Orientation

$$(20.574 - 39.703)^2$$

$$\frac{189.085}{\left[\frac{10+10}{10.10} \right]}$$

$$= 9.68 \quad p < 0.05$$

Utilitarian vs Fairness Orientation

$$(39.703 - 16.47)^2$$

$$\frac{189.085}{\left[\frac{10+10}{10.10} \right]}$$

$$= 14.27 \quad p < 0.01$$

APPENDIX K

MORAL TYPE

2 X 2 CHI SQUARE (RACE)

AND

2 X 4 CHI SQUARE (AGE)

Chi square - Race by moral type

TABLE OF RACE (ROWS) BY MORALTYPE (COL-
UMNS)
FREQUENCIES

	1.000	2.000	TOTAL
1.000	28	12	40
2.000	29	12	41
TOTAL	57	24	81

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI - SQUARE	0.005	1	0.943
LIKELIHOOD RATIO CHI - SQUARE	0.005	1	0.943
MCNEMAR SYMMETRY CHI - SQUARE	7.049	1	0.008
YATES CORRECTED CHI - SQUARE	0.000	1	1.000
FISHER EXACT TEST (TWO - TAIL)			1.000

COEFFICIENT	VALUE	ASYMPTOTIC STD ERROR
PHI	-0.008	
CONTINGENCY	0.008	
GOODMAN - KRUSKAL GAMMA	-0.018	0.243
KENDALL TAU - B	-0.008	0.111
STUART TAU - C	-0.007	0.101
YULE Q	-0.018	0.243
YULE Y	-0.009	0.122
COHEN KAPPA	-0.007	0.101
SPEARMAN RHO	-0.008	0.111
SOMERS D (COLUMN DEPENDENT)	-0.007	0.101
LAMBADA (COLUMN DEPENDENT)	0.000	0.000
UNCERTAINTY (COLUMN DEPENDENT)	0.000	0.001

Chi - square Age group by moral type.

TABLE OF AGEGRP (ROWS) BY MORALTYP (COLUMNS)
 FREQUENCIES

	1.000	2.000	TOTAL
1.000	19	2	21
2.000	17	3	20
3.000	13	7	20
4.000	8	12	20
TOTAL	57	24	81

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	15.248	3	0.002
LIKELIHOOD RATIO CHI-SQUARE	15.511	3	0.001

COEFFICIENT	VALUE	ASYMPTOTIC STD ERROR
PHI	0.434	
CRAMER V	0.434	
CONTINGENCY	0.398	
GOODMAN-KRUSKAL GAMMA	0.643	0.124
KENDALL TAU-B	0.383	0.086
STUART TAU-C	0.428	0.103
SPEARMAN RHO	0.419	0.095
SOMERS D (COLUMN DEPENDENT)	0.285	0.069
LAMBDA (COLUMN DEPENDENT)	0.167	0.170
UNCERTAINTY (COLUMN DEPENDENT)	0.158	0.074

APPENDIX L

SOCIAL EXPERIENCE

One - way ANOVAS on five categories of social experience scored from the Biographical Inventory and Social Experience Questionnaire.

LEVELS ENCOUNTERED DURING PROCESSING ARE:

RACE
1.000 2.000

DEP VAR: GES N: 81 MULTIPLE R: 0.731
SQUARED MULTIPLE R: 0.534

ESTIMATES OF EFFECTS $B = (X'X)^{-1}X'Y$

		GES
CONSTANT		29.106
RACE	1.000	-4.019

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
RACE	1307.858	1	1307.858	90.624	0.000
ERROR	1140.103	79	14.432		

LEAST SQUARES MEANS.

		MEAN	SD	(N)
RACE	1.000	25.088	4.355	40
RACE	2.000	33.125	3.163	41

LEVELS ENCOUNTERED DURING PROCESSING ARE:

RACE
1.000 2.000

DEP VAR: GRTQ N: 81 MULTIPLE R: 0.081
SQUARED MULTIPLE R: 0.007

ESTIMATES OF EFFECTS $B = (X'X)^{-1}X'Y$

		GRTQ
CONSTANT		5.681
RACE	1.000	0.169

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
RACE	2.310	1	2.310	0.522	0.472
ERROR	349.344	79	4.422		

LEAST SQUARES MEANS.

		MEAN	SD	(N)
RACE	1.000	5.850	2.424	40
RACE	2.000	5.512	1.734	41

LEVELS ENCOUNTERED DURING PROCESSING ARE:

RACE 1.000 2.000

DEP VAR: GRIQ N: 81 MULTIPLE R: 0.367
SQUARED MULTIPLE R: 0.134

ESTIMATES OF EFFECTS $B = (X'X)^{-1}X'Y$

		GRIQ
CONSTANT		2.807
RACE	1.000	-0.607

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
RACE	29.871	1	29.871	12.268	0.001
ERROR	192.351	79	2.435		

LEAST SQUARES MEANS.

		MEAN	SD	(N)
RACE	1.000	2.200	1.884	40
RACE	2.000	3.415	1.161	41

LEVELS ENCOUNTERED DURING PROCESSING ARE:

RACE
1.000 2.000

DEP VAR: GLAQ N: 81 MULTIPLE R: 0.463
SQUARED MULTIPLE R: 0.215

ESTIMATES OF EFFECTS $B = (X'X)^{-1}X'Y$

		GLAQ
CONSTANT		13.435
RACE	1.000	-2.537

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
RACE	521.407	1	521.407	21.606	0.000
ERROR	1906.457	79	24.132		

LEAST SQUARES MEANS.

		MEAN	SD	(N)
RACE	1.000	10.898	5.003	40
RACE	2.000	15.973	4.823	41

LEVELS ENCOUNTERED DURING PROCESSING ARE:

RACE
1.000 2.000

DEP VAR: SI N: 81 MULTIPLE R: 0.672
SQUARED MULTIPLE R: 0.452

ESTIMATES OF EFFECTS $B = (X'X)^{-1}X'Y$

		SI
CONSTANT		12.758
RACE	1.000	-1.749

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
RACE	247.622	1	247.622	65.072	0.000
ERROR	300.621	79	3.805		

LEAST SQUARES MEANS.

		MEAN	SD	(N)
RACE	1.000	11.009	2.021	40
RACE	2.000	14.506	1.879	41

APPENDIX M

SOCIAL EXPERIENCE

Four t - tests on data scored from the diary

INDEPENDENT SAMPLES T-TEST ON FAMCO GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	15.850	7.485
2.000	41	13.732	9.301

SEPARATE VARIANCES T = 1.131 DF = 76.3 PROB = 0.262
 POOLED VARIANCES T = 1.128 DF = 79 PROB = 0.263

INDEPENDENT SAMPLES T-TEST ON LAD GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	23.050	10.696
2.000	41	30.073	10.792

SEPARATE VARIANCES T = -2.941 DF = 79.0 PROB = 0.004
 POOLED VARIANCES T = -2.941 DF = 79 PROB = 0.004

INDEPENDENT SAMPLES T-TEST ON RID GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	3.825	4.187
2.000	41	5.805	6.034

SEPARATE VARIANCES T = -1.719 DF = 71.4 PROB = 0.090
 POOLED VARIANCES T = -1.712 DF = 79 PROB = 0.091

INDEPENDENT SAMPLES T-TEST ON RTD GROUPED BY RACE

GROUP	N	MEAN	SD
1.000	40	10.975	8.645
2.000	41	5.049	4.674

SEPARATE VARIANCES T = 3.824 DF = 59.7 PROB = 0.000
 POOLED VARIANCES T = 3.850 DF = 79 PROB = 0.000

APPENDIX N

SOCIAL EXPERIENCE AND LEVEL OF MORAL REASONING

PEARSON - PRODUCT MOMENT CORRELATIONS

AND

STEPWISE MULTIPLE REGRESSIONS

PEARSON CORRELATION MATRIX

	WAS	TAGE	EDUC	SES	SI
WAS	1.000				
TAGE	0.756	1.000			
EDUC	0.739	0.939	1.000		
SES	-0.110	-0.262	-0.198	1.000	
SI	0.074	-0.091	-0.056	0.439	1.000

BARTLETT CHI-SQUARE STATISTIC: 260.454 DF= 10 PROB= .000

MATRIX OF PROBABILITIES

	WAS	TAGE	EDUC	SES	SI
WAS	0.000				
TAGE	0.000	0.000			
EDUC	0.000	0.000	0.000		
SES	0.328	0.018	0.077	0.000	
SI	0.514	0.420	0.619	0.000	0.000

NUMBER OF OBSERVATIONS: 81

THE FOLLOWING RESULTS ARE FOR:
RACE = 1.000

PEARSON CORRELATION MATRIX

	WAS	EDUC	SES	SI	TAGE
WAS	1.000				
EDUC	0.690	1.000			
SES	-0.219	-0.350	1.000		
SI	-0.128	-0.139	0.217	1.000	
TAGE	0.660	0.963	-0.416	-0.161	1.000

NUMBER OF OBSERVATIONS: 40

THE FOLLOWING RESULTS ARE FOR:
RACE = 2.000

PEARSON CORRELATION MATRIX

	WAS	EDUC	SES	SI	TAGE
WAS	1.000				
EDUC	0.824	1.000			
SES	-0.240	-0.041	1.000		
SI	-0.022	-0.004	0.216	1.000	
TAGE	0.847	0.923	-0.145	-0.067	1.000

NUMBER OF OBSERVATIONS: 41

Stepwise Procedure for Dependent Variable WAS

Statistics for Entry: Step 1

DF = 1,79

Variable	Tolerance	Model R**2	F	Prob>F
TAGE	1.000000	0.5710	105.1322	0.0001
SI	1.000000	0.0054	0.4305	0.5136
SES	1.000000	0.0121	0.9675	0.3283

Step 1 Variable TAGE Entered R-square = 0.57096037 C(p) = 4.05828837

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	99748.27103588	99748.27103588	105.13	0.0001
Error	79	74954.34624808	948.78919301		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	113.05186896	15.05338097	53512.73107705	56.40	0.0001
TAGE	9.70877082	0.94688323	99748.27103588	105.13	0.0001

Bounds on condition number: 1, 1

Statistics for Entry: Step 2

DF = 1,78

Variable	Tolerance	Model R**2	F	Prob>F
SI	0.991755	0.5914	3.8937	0.0520
SES	0.931200	0.5793	1.5491	0.2170

Step 2 Variable SI Entered R-square = 0.59135921 C(p) = 2.20434356

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	103312.00177553	51656.00088776	56.44	0.0001
Error	78	71390.61550842	915.26430139		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	77.74520845	23.21095429	10268.51863750	11.22	0.0012
TAGE	9.87609772	0.93386198	102365.09422455	111.84	0.0001
SI	2.56010826	1.29741571	3563.73073965	3.89	0.0520

Bounds on condition number: 1.008314, 4.033255

Stepwise regression for whole sample

Statistics for Removal: Step 3

DF = 1,78

Variable	Partial R**2	Model R**2
TAGE	0.5859	0.0054
SI	0.0204	0.5710

Statistics for Entry: Step 3

DF = 1,77

Variable	Tolerance	Model R**2	F	Prob>F
SES	0.757137	0.5924	0.2043	0.6525

All variables in the model are significant at the 0.1500 level.
 No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable WAS

Step	Variable Entered	Number Removed	In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	TAGE		1	0.5710	0.5710	4.0583	105.1322	0.0001
2	SI		2	0.0204	0.5914	2.2043	3.8937	0.0520

Stepwise Procedure for Dependent Variable WAS

Statistics for Entry: Step 1
DF = 1,79

Variable	Tolerance	Model R**2	F	Prob>F
EDUC	1.000000	0.5455	94.8186	0.0001
SI	1.000000	0.0054	0.4305	0.5136
SES	1.000000	0.0121	0.9675	0.3283

Step 1 Variable EDUC Entered R-square = 0.54550321 C(p) = 2.35961039

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	95300.83809708	95300.83809708	94.82	0.0001
Error	79	79401.77918687	1005.08581249		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	177.91010817	9.45577993	355803.05938755	354.00	0.0001
EDUC	11.44013428	1.17485517	95300.83809708	94.82	0.0001

Bounds on condition number: 1, 1

Statistics for Entry: Step 2
DF = 1,78

Variable	Tolerance	Model R**2	F	Prob>F
SI	0.996852	0.5588	2.3478	0.1295
SES	0.960941	0.5468	0.2318	0.6315

Step 2 Variable SI Entered R-square = 0.55878395 C(p) = 2.04066193

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	97621.01876785	48810.50938393	49.39	0.0001
Error	78	77081.59851610	988.22562200		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	150.83045315	20.00616993	56170.23937682	56.84	0.0001
EDUC	11.54044348	1.16679742	96674.11121687	97.83	0.0001
SI	2.06040959	1.34468548	2320.18067077	2.35	0.1295

Bounds on condition number: 1.003158, 4.012631

Stepwise regression for blacks only

Statistics for Removal: Step 3
DF = 1,78

Variable	Partial R**2	Model R**2
EDUC	0.5534	0.0054
SI	0.0133	0.5455

Statistics for Entry: Step 3
DF = 1,77

Variable	Tolerance	Model R**2	F	Prob>F
SES	0.776995	0.5590	0.0407	0.8407

All variables in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable WAS

Step	Variable Entered	Number Removed	In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	EDUC		1	0.5455	0.5455	2.3596	94.8186	0.0001
2	SI		2	0.0133	0.5588	2.0407	2.3478	0.1295

Stepwise regression for whites only

11

Stepwise Procedure for Dependent Variable WAS

Statistics for Entry: Step 1
DF = 1,79

Variable	Tolerance	Model R**2	F	Prob>F
TAGE	1.000000	0.5710	105.1322	0.0001
SI	1.000000	0.0054	0.4305	0.5136
SES	1.000000	0.0121	0.9675	0.3283

Step 1 Variable TAGE Entered R-square = 0.57096037 C(p) = 4.05828837

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	99748.27103588	99748.27103588	105.13	0.0001
Error	79	74954.34624808	948.78919301		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	113.05186896	15.05338097	53512.73107705	56.40	0.0001
TAGE	9.70877082	0.94688323	99748.27103588	105.13	0.0001

Bounds on condition number: 1, 1

Statistics for Entry: Step 2
DF = 1,78

Variable	Tolerance	Model R**2	F	Prob>F
SI	0.991755	0.5914	3.8937	0.0520
SES	0.931200	0.5793	1.5491	0.2170

Step 2 Variable SI Entered R-square = 0.59135921 C(p) = 2.20434356

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	103312.00177553	51656.00088776	56.44	0.0001
Error	78	71390.61550842	915.26430139		
Total	80	174702.61728395			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	77.74520845	23.21095429	10268.51863750	11.22	0.0012
TAGE	9.87609772	0.93386198	102365.09422455	111.84	0.0001
SI	2.56010826	1.29741571	3563.73073965	3.89	0.0520

Bounds on condition number: 1.008314, 4.033255

Stepwise regression for whites only

12

Statistics for Removal: Step 3
DF = 1,78

Variable	Partial R**2	Model R**2
TAGE	0.5859	0.0054
SI	0.0204	0.5710

Statistics for Entry: Step 3
DF = 1,77

Variable	Tolerance	Model R**2	F	Prob>F
SES	0.757137	0.5924	0.2043	0.6525

All variables in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable WAS

Step	Variable Entered	Number Removed	In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	TAGE		1	0.5710	0.5710	4.0583	105.1322	0.0001
2	SI		2	0.0204	0.5914	2.2043	3.8937	0.0520

APPENDIX O

SOCIAL EXPERIENCE AND MORAL ORIENTATIONS

PEARSON - PRODUCT MOMENT CORRELATIONS

PEARSON CORRELATION MATRIX

	GPFAIR	GPNORM	GPPERF	GPUTIL	TAGE
GPFAIR	1.000				
GPNORM	-0.496	1.000			
GPPERF	0.081	-0.457	1.000		
GPUTIL	-0.375	-0.174	-0.557	1.000	
TAGE	0.480	-0.456	0.376	-0.282	1.000
SI	0.003	-0.059	-0.009	0.065	-0.091
SES	-0.081	0.104	-0.030	-0.012	-0.262
EDUC	0.388	-0.446	0.381	-0.223	0.939

	SI	SES	EDUC
SI	1.000		
SES	0.439	1.000	
EDUC	-0.056	-0.198	1.000

NUMBER OF OBSERVATIONS: 81

THE FOLLOWING RESULTS ARE FOR:

RACE = 1.000

PEARSON CORRELATION MATRIX

	GPFAIR	GPNORM	GPPERF	GPUTIL	TAGE
GPFAIR	1.000				
GPNORM	-0.381	1.000			
GPPERF	-0.027	-0.476	1.000		
GPUTIL	-0.309	-0.383	-0.371	1.000	
TAGE	0.252	-0.478	0.114	0.235	1.000
SI	0.068	-0.080	-0.186	0.209	-0.161
SES	-0.064	0.073	0.021	-0.052	-0.416
EDUC	0.216	-0.490	0.160	0.233	0.963

	SI	SES	EDUC
SI	1.000		
SES	0.217	1.000	
EDUC	-0.139	-0.350	1.000

NUMBER OF OBSERVATIONS: 40

THE FOLLOWING RESULTS ARE FOR:

RACE = 2.000

PEARSON CORRELATION MATRIX

	GPFAIR	GPNORM	GPPERF	GPUTIL	TAGE
GPFAIR	1.000				
GPNORM	-0.604	1.000			
GPPERF	0.149	-0.442	1.000		
GPUTIL	-0.420	0.017	-0.690	1.000	
TAGE	0.646	-0.441	0.574	-0.688	1.000
SI	-0.140	0.005	-0.001	0.112	-0.067
SES	-0.185	0.237	-0.190	0.122	-0.145
EDUC	0.535	-0.401	0.577	-0.636	0.923

	SI	SES	EDUC
SI	1.000		
SES	0.216	1.000	
EDUC	-0.004	-0.041	1.000

NUMBER OF OBSERVATIONS: 41

PEARSON CORRELATION MATRIX

APPENDIX P

SOCIAL EXPERIENCE AND MORAL TYPE

POINT BISERIAL CORRELATIONS

$$r_{pb} = \frac{\bar{Y}_1 - \bar{Y}_0}{\delta Y} \sqrt{pq} \quad (\text{Hinkle, Wiersma and Jurs, 1988})$$

Total Sample

Age and moral type

$$r_{pb} = \frac{17.833 - 14.421}{3.538} \sqrt{(0.3)(0.7)}$$

$$= 0.44$$

Education and moral type

$$r_{pb} = \frac{9.33 - 6.68}{2.99} \sqrt{(0.0)(0.7)}$$

$$= 0.40$$

Socio - economic status and moral type

$$r_{pb} = \frac{9.79 - 11.11}{0.068} \sqrt{(0.3)(0.7)}$$

$$= -0.14$$

Social index and moral type

$$r_{pb} = \frac{13.04 - 12.67}{2.6} \sqrt{(0.3)(0.7)}$$

$$= 0.07$$

Blacks

Age and moral type

$$r_{pb} = \frac{17.25 - 14.79}{3.4} \sqrt{(0.3)(0.7)}$$

$$= 0.33$$

Education and moral type

$$r_{pb} = \frac{9.5 - 6.6}{3.04} \frac{\sqrt{(0.3)(0.7)}}{\sqrt{(0.3)(0.7)}}$$
$$= 0.38$$

Socio - economic status and moral type

$$r_{pb} = \frac{8.17 - 9.5}{4.41} \frac{\sqrt{(0.3)(0.7)}}{\sqrt{(0.3)(0.7)}}$$
$$= -0.14$$

Social index and moral type

$$r_{pb} = \frac{11.89 - 10.63}{2} \frac{\sqrt{(0.3)(0.7)}}{\sqrt{(0.3)(0.7)}}$$
$$= 0.29$$

Whites

Age and moral type

$$r_{pb} = \frac{18.42 - 14.67}{3.67} \frac{\sqrt{(0.29)(0.71)}}{\sqrt{(0.29)(0.71)}}$$
$$= 0.46$$

Education and moral type

$$r_{pb} = \frac{9.17 - 6.76}{3} \frac{\sqrt{(0.29)(0.71)}}{\sqrt{(0.29)(0.71)}}$$
$$= 0.43$$

Socio - economic status and moral type

$$\begin{aligned} r_{pb} &= \frac{11.42 - 12.66}{3.78} \sqrt{(0.29)(0.71)} \\ &= -0.15 \end{aligned}$$

Social index and moral type

$$\begin{aligned} r_{pb} &= \frac{14.20 - 14.63}{1.85} \sqrt{(0.29)(0.71)} \\ &= -0.11 \end{aligned}$$

APPENDIX Q

POST - HOC T - TESTS

race = 1

INDEPENDENT SAMPLES T-TEST ON EDUC GROUPED BY AGEGRP

GROUP	N	MEAN	SD
1.000	10	4.000	0.943
2.000	10	5.200	1.033

SEPARATE VARIANCES T = -2.714 DF = 17.9 PROB = 0.014
POOLED VARIANCES T = -2.714 DF = 18 PROB = 0.014

INDEPENDENT SAMPLES T-TEST ON TAGE GROUPED BY AGEGRP

GROUP	N	MEAN	SD
1.000	10	11.200	0.919
2.000	10	13.600	0.966

SEPARATE VARIANCES T = -5.692 DF = 18.0 PROB = 0.000
POOLED VARIANCES T = -5.692 DF = 18 PROB = 0.000

INDEPENDENT SAMPLES T-TEST ON EDUC GROUPED BY AGEGRP

GROUP	N	MEAN	SD
3.000	10	9.900	0.994
4.000	10	10.800	0.422

SEPARATE VARIANCES T = -2.635 DF = 12.1 PROB = 0.022
POOLED VARIANCES T = -2.635 DF = 18 PROB = 0.017

INDEPENDENT SAMPLES T-TEST ON TAGE GROUPED BY AGEGRP

GROUP	N	MEAN	SD
3.000	10	17.700	0.483
4.000	10	19.600	0.843

SEPARATE VARIANCES T = -6.183 DF = 14.3 PROB = 0.000
POOLED VARIANCES T = -6.183 DF = 18 PROB = 0.000

race = 2

INDEPENDENT SAMPLES T-TEST ON EDUC GROUPED BY AGEGRP

GROUP	N	MEAN	SD
1.000	11	3.545	0.820
2.000	10	6.600	1.506

SEPARATE VARIANCES T = -5.694 DF = 13.6 PROB = 0.000
POOLED VARIANCES T = -5.851 DF = 19 PROB = 0.000

INDEPENDENT SAMPLES T-TEST ON TAGE GROUPED BY AGEGRP

GROUP	N	MEAN	SD
1.000	11	10.909	0.701
2.000	10	14.200	0.789

SEPARATE VARIANCES T = -10.068 DF = 18.1 PROB = 0.000
POOLED VARIANCES T = -10.127 DF = 19 PROB = 0.000

INDEPENDENT SAMPLES T-TEST ON EDUC GROUPED BY AGEGRP

GROUP	N	MEAN	SD
3.000	10	9.100	0.568
4.000	10	11.000	0.000

T = -10.56 DF = 1 Prob = 0.000
14

INDEPENDENT SAMPLES T-TEST ON TAGE GROUPED BY AGEGRP

GROUP	N	MEAN	SD
3.000	10	16.200	0.422
4.000	10	20.900	2.079

SEPARATE VARIANCES T = -7.006 DF = 9.7 PROB = 0.000
POOLED VARIANCES T = -7.006 DF = 18 PROB = 0.000