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AN INVESTIGATION OF SOME CORRELATES
OF MATURE MORAL JUDGEMENT

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the requirements for the degree of Master of
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Abstract

From Kohlberg's cognitive developmental perspective, moral judgement has been viewed as an aspect of ego development which is related to other aspects of ego development. The purpose of this research was to investigate some possible correlates of mature moral judgement; although some research had been conducted with children practically no research into correlates in adult populations has been reported.

A sample of 50 male and 32 female first year teachers' college volunteer subjects was used. Of these, a random subsample of 10 males was used to test the congruent validity of the written questionnaire form of 4 of Kohlberg's (1958) moral dilemma situations devised for this research, with the original interview technique. Using a design counterbalanced for order of presentation with one week retest interval the difference between the measuring devices was found to be non-significant ($t = -0.13, p > .55$).

The remaining subjects were randomly assigned to one of two testing orders - 20 males and 16 females to each group. In three testing sessions at 3-4 day intervals both groups were administered the: Kohlberg Moral Judgement Scale (written form), Study of Ethical Attitudes, C.P.I., P.O.I., Study of Values, E.P.I., Californian F-test and Mill Hill Vocabulary Scales. The order of presentation was counterbalanced. Two-way ANOVAs were performed on the data to test for sex or

order effects. In the majority of cases no significant effects were found and so the data was combined to provide a sample n of 72. On scales on which significant differences were found separate analysis of the subgroups was performed. A measure of Piagetian cognitive level was obtained 2 months later by individual testing.

Analysis of the Kohlberg scale revealed a high level of stage mixture: only 5.5 percent of subjects had a range as low as 4 stages. Evidence was put forward that indicates that high levels of stage mixture have also been found by others and the conflict between this finding and Kohlberg's theory was discussed. A factor analysis of the item scores revealed 6 factors with eigen values greater than one. Five of these could be interpreted meaningfully in terms of Kohlberg's theory but the second factor was difficult to interpret; it seemed because of its correlations with other measures to be concerned with general sensitivity to ethical issues. The factors were identified as: factor 1 (conflict between obedience to the law and the value of human life), factor 3 (duty vs contractual obligation), factor 4 (spirit of the law), factor 5 (property rights) and factor 6 (power rights vs moral rights). Contrary to Kohlberg's finding but in line with a number of other studies no major moral judgement factor emerged.

Correlations between moral maturity scores and other personality measures were largely non-significant. A correlation of $-.30$ ($p < .05$) confirmed the negative correlation between these two measures reported by Kohlberg (1964). The correlation of $.34$ ($p < .05$) with the Study of Values religious

scale for the male subsample was in the opposite direction to that reported by Klinger et al (1964). The only other significant correlation was that of .34 ($p < .05$) with Piagetian cognitive level in the females. Failure to find a similar correlation in the males was attributed to the high level of male responses resulting in little variability over the critical range.

Reanalysis involving correlations between Kohlberg scale factor scores and the other personological scales revealed 11 significant correlations; i.e. 4.8 percent of those calculated reached the .05 level or higher. 4 of these correlations were with the first factor (conflict between obedience to the law and the value of human life), and seemed to show that conventional level judgements related to the acceptance of conventional Christian attitudes toward life and work and to authoritarian tendencies.

Reanalysis of the data, from subsamples in which clearer personological differences could be expected, was conducted. t-tests between Ss whose moral maturity scores were in the extreme quartiles were calculated for those C.P.I. and P.O.I. scales measuring traits expected to be most closely related to moral maturity. No significant differences were found. Correlations between moral maturity and all other scales were calculated for those ¹⁴Ss with the most homogeneous moral judgement profiles and again those for ³⁴Ss with the most homogeneous moral judgement profiles. In both of these subsamples the only significant correlations were with the Californian F test ($r_{xy} = -.80$, $p < .01$, $n = 14$; $r_{xy} = -.37$,

$p < .05$, $n = 34$). 2-way ANOVA of the effects of empathy and autonomy on moral maturity revealed no significant effects.

A factor analysis of all scales including moral maturity, but excluding the ipsative Study of Values scales, extracted 10 factors with eigen values greater than 1. The eighth factor had a loading of $-.90$ on moral maturity and was clearly a Kohlberg scale factor.

Canonical correlation between Kohlberg scale item scores and the other scales revealed 15 significant correlations, the first of which was a canonical correlation of $.97$. Inspection of the normalized weights showed that meaningful interpretation of these linear combinations within existing theoretical and conceptual frameworks was not possible.

A considerable number of variables were measured and intensive analysis of results conducted but the only variable that was found to consistently relate to moral maturity was authoritarianism. Evidence obtained from this sample pointed to the possibility that a positive correlation between moral maturity and cognitive development may be found in samples more representative of adult variability on this dimension.

Preface and Acknowledgements

Although the research reported in this thesis was based on Kohlberg's theory of moral judgement, my initial interest in the cognitive developmental field and in the application of a cognitive developmental approach to the development of moral judgement, was aroused by Piaget's brilliant insights into the developing child.

Acknowledgement is due to Dr. R.A.C. Stewart who supervised the research and read the draft copy of this thesis and to Dr. C.R. Boswell who expanded the canonical correlation programme which was used to analyse the experimental data.

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CHAPTER ONE

MORAL JUDGEMENT THEORY

Psychologists have taken three main approaches to the development of moral behaviour : (a) identification-guilt, (b) conformity learning, (c) development of judgement. From these three approaches a number of theories, about how the amoral infant becomes a moral adult, have evolved. One of the main lines of thought can be traced from the theorising of Durkheim, McDougall and Baldwin about types and levels of moral thought to the cognitive developmental theories of Piaget and Kohlberg. The developmentalists have rejected the super-ego strength view of moral behaviour guided by a conscience which was permanently imprinted as a result of the resolution of internal and environmental pressures. They have also rejected the notion that moral behaviour is guided by a "bag of virtues" that is learned in childhood. Instead, they view the development of moral thought as a product of the child's conceptually organised role taking and his social environment.

From clinical observation of children's responses to questions about the rules of games and of the reasons children gave for the moral decisions they made, Piaget (1932) concluded that there were three stages of moral development: (a) the amoral period of infancy and early childhood during which time, because of cognitive limitations, actions are outside the sphere of moral actions; (b) the heteronomous stage which lasts up till approximately

eight years of age and may be viewed as a sort of premoral stage; (c) the autonomous stage which commences at approximately eight years of age but continues to develop during the following four years. It is only when this stage is reached that truly moral judgements, i.e. judgements based on dimensions adults employ, can be made. During the period of middle childhood, moral realism (the view that rules are given, timeless, immutable and inherent in the games they play) gives way slowly, through the realization that rules have sources outside the games themselves and the realization that minor rule changes are permissible as long as the participants agree, to moral relativism (the view that rules are determined by consensus for the purpose of ordering conduct). Also during this period the child's sense of justice, which until approximately eight years of age was equated with subordination to adult authority, becomes progressively more equalitarian until finally, toward eleven to twelve years of age "pure equalitarian justice is tempered by considerations of equity" (Piaget, 1932, p. 314).

Piaget (1932) proposed a number of dimensions along which changes occur as children's judgements change from heteronomous to autonomous.

(1) Objective responsibility changes to subjective responsibility. From judgement of an act in terms of exact rule conformity the child changes to evaluation based on intentions, and from judgement based on the physical consequences of an act the change is made to judgement based on intentions.

(ii) Fixidity of rules regardless of their suitability for ordering conduct in the given situation changes to rule flexibility where, by general consensus, rules can be changed to match changed circumstances.

(iii) The view that an act has an absolute value that is universally accepted and that the adult's judgement is always correct changes to relativism : a recognition that people can and do make different judgements and that adults are not necessarily correct.

(iv) While the young child's definition of wrongness may be based on the fact that punishment has been given, the older child's judgements of moral wrongness are independent of sanctions.

(v) Expiative justice, the advocacy of severe painful punishment, tends to change to restitutorial justice.

(vi) The belief in immanent justice, i.e. that physical objects can punish individuals for committing bad acts, changes to a naturalistic view of causality.

A number of researchers have found all or some of these dimensions to be linearly related to age (Lerner, 1937; Caruso, 1943; Piaget, 1932; MacRae, 1954; Kohlberg, 1958; Boehm and Nass, 1962; Johnson, 1962; Kuranuki, 1968; Baldwin and Baldwin, 1970; Armsby, 1971; Costanzo et al., 1973). Although Piaget's account of changes in intentionality needs to be modified to include, more adequately, some of the recent findings, his basic contention has been upheld. The only apparently well-

conceived piece of research which runs counter to these findings is Cudrin's (1966) finding of a curvilinear relationship between age and belief in immanent justice. Eight year olds gave the most mature judgements.

The other five dimensions of change proposed by Piaget are apparently not linearly related to age but it is probable that some of them may have a curvilinear relationship, e.g. the definition of duty as obedience to authority as opposed to conformity to peers.

Piaget considered that the heteronomous child oriented to rules as if they were fixed and sacred things, however Kohlberg (1958) has claimed that they are "not oriented to rules as entities but as projectively bad acts and to obedience to persons not rules". To Piaget conformity in early childhood appeared to be heteronomous; children were seen to have a unilateral respect for adults, a respect which results in a sense of sacredness of authority and rules. Kohlberg considers that although it is true that children of this age are oriented toward obedience, there is no evidence to suggest that they respect adults. They may recognise adults as more powerful and have an obedience orientation stemming from a desire to avoid punishment but this is not the same as having unilateral respect. "Various kinds of response used by Piaget as indicating a sense of sacredness of adults are interpreted [by Kohlberg] as indicating cognitive naiveté, independent of emotional over-evaluation. Often they indicate a lack of respect for rule, against which the adult is measured rather than an idealization of the adult." (Kohlberg, 1958) Piaget's explanation of the

evidence is not the most parsimonious. Kohlberg believes that the simplest explanation is that these children have developed a punishment and obedience orientation in which the physical consequences of an action determine its morality and in which right and wrong are seen in terms of the physical power of authority figures. Hence unquestioning deference to power is valued in its own right. Empirical evidence supporting this interpretation comes from Kohlberg's (1963) study of four to seven year olds. The four year olds defined right or wrong in terms of reward or punishment rather than in terms of rules or adult commands.

Piaget found that changes on the dimensions previously discussed occurred during the period from approximately eight to twelve years of age. The major forces contributing to change were considered to be the development of a wider viewpoint, i.e. the decline of egocentrism, and the development of an autonomous view of rules, both brought about largely through peer group interaction.

"--- cooperation suppresses both egocentrism and moral realism, and thus achieves an interiorization of rules. A new morality follows upon that of pure duty. Heteronomy steps aside to make way for a consciousness of good, of which the autonomy results from the acceptance of the norms of reciprocity. Obedience withdraws in favour of the idea of justice and of mutual service, now the source of all the obligations which till then had been imposed as incomprehensible commands."
(Piaget, 1932, p 411.)

It now appears that Piaget's stages of moral judgement development were limited by the level of the moral dilemma stories he employed and by his concentration on the responses of children in the pre-school and middle childhood years. His failure to study carefully the changes in moral judgement that occur in conjunction with the development of abstract reasoning powers in adolescence resulted in a theory which did not account for the development of the highest levels of reasoning.

Kohlberg's (1958) three level, six stage theory of moral development resulted from the analysis of the responses to moral dilemma stories of boys aged ten, thirteen and sixteen years. The greater emphasis on older subjects and the use of more complex moral dilemmas than those used by Piaget has resulted in the development of a more detailed stage structure which takes cognisance of later intellectual development. Kohlberg's method and theory are directly related to Piaget's : his theory is an attempt to account for the change from moral realism to moral relativism in more parsimonious terms and to account more adequately for the development of the higher levels of adult thought. The original decision to subdivide moral reasoning in two ways, both levels and stages, (Kohlberg, 1958) was made in order to provide a structure with sufficient classifications to accommodate differences in reasoning but with enough flexibility to allow for a reduction in the complexity of the structure if future research indicated that this would be desirable. The levels also help to provide the topology

with a logical structure. In more recent work by Kohlberg and his students (Turiel, 1966; Kohlberg and Kramer, 1969; Blatt, 1970) the need to employ all six stages has been accepted and the levels serve solely to provide an overview which helps to give meaning to the stages. The levels both connect the pairs of stages which have major cognitive developmental features in common and indicate the connection between the moral judgement stages and the different types of moral reasoning that have been delineated by philosophical analysis. The motivational aspects of level one 'Pre-conventional Level' of (a) punishment by another and (b) manipulation of goods and rewards by another "represent on the verbal level what McDougall termed 'the stage in which the operation of the instinctive impulses is modified by the influence of rewards and punishments'." (Kohlberg, 1963, p 14) At the second level, 'Morality of Conventional Role Conformity', motivated by (a) disapproval by others and (b) censure by legitimate authorities followed by guilt feelings, morality corresponds "to McDougall's second stage 'in which conduct is controlled in the main by anticipation of social praise and blame' " (Kohlberg, 1963, p 14). Similarly the level three 'Morality of Contract and of Democratically Accepted Law' motivated by (a) community respect and disrespect and especially (b) self-condemnation, relate to McDougall's third stage "'in which conduct is regulated by an ideal that enables a man to act in a way that seems to him right, regardless of the praise or blame of his immediate social environment'" (Kohlberg, 1963, p 14).

A summary of Kohlberg's stage structure, which was developed by employing a Weberian ideal-typological procedure, is given below. This summary was taken from Kohlberg, 1966, p 7.

LEVEL I-PREMORAL

Stage 1. - Obedience and punishment orientation. Egocentric deference to superior power or prestige, or a trouble-avoiding set. Objective responsibility.

Stage 2. - Naively egoistic orientation. Right action is that instrumentally satisfying the self's needs and occasionally other's. Awareness of relativism of value to each actor's needs and perspective. Naive egalitarianism and orientation to exchange and reciprocity.

LEVEL II-CONVENTIONAL ROLE CONFORMITY

Stage 3. - Good-boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images of majority or natural role behaviour, and judgement of intentions.

Stage 4. - Authority and social-order-maintaining orientation. Orientation to "doing duty" and to showing respect for authority and maintaining the given social order for its own sake. Regard for earned expectations of others.

LEVEL III-SELF-ACCEPTED MORAL PRINCIPLES

Stage 5. - Contractual legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Duty defined in terms of contract, general avoidance of violation of the will or rights of others, and majority will and welfare.

Stage 6. - Conscience or principle orientation. Orientation not only to actually ordained social rules but to principles of choice involving appeal to logical universality and consistency. Orientation to conscience as a directing agent and to mutual respect and trust.

The original typology was said to have been based on thirty different general aspects of morality which were included in children's thinking (Kohlberg, 1963) but more recent statements refer to only twenty five different aspects (Kohlberg, 1965). A complete list of aspects and statement of the way in which each helps to define each stage of judgement has not been published and within Kohlberg's (1958) original work not all aspects are discussed at each stage. A number of the aspects have been carefully analysed : a motivational aspect, the conception of rights (Kohlberg, 1963) and the value of human life (Kohlberg, 1965). The six levels of motive have been defined as follows (Kohlberg, 1963, p 14):-

1. Punishment by another
2. Manipulation of goods, rewards by another
3. Disapproval by others
4. Censure by legitimate authorities followed
by guilt feelings
5. Community respect and disrespect
6. Self-condemnation

Some cross sectional study evidence of the sequentiality of stages was obtained in Kohlberg's (1958) original study. The proportion of usage of each stage by subjects of different ages supports Kohlberg's topology (Figure 1). Moreover a Guttman quasi-simplex pattern of intercorrelations was compatible with Kohlberg's contention that the higher types of thought replace the lower types. The higher correlations of stages within levels as compared with between

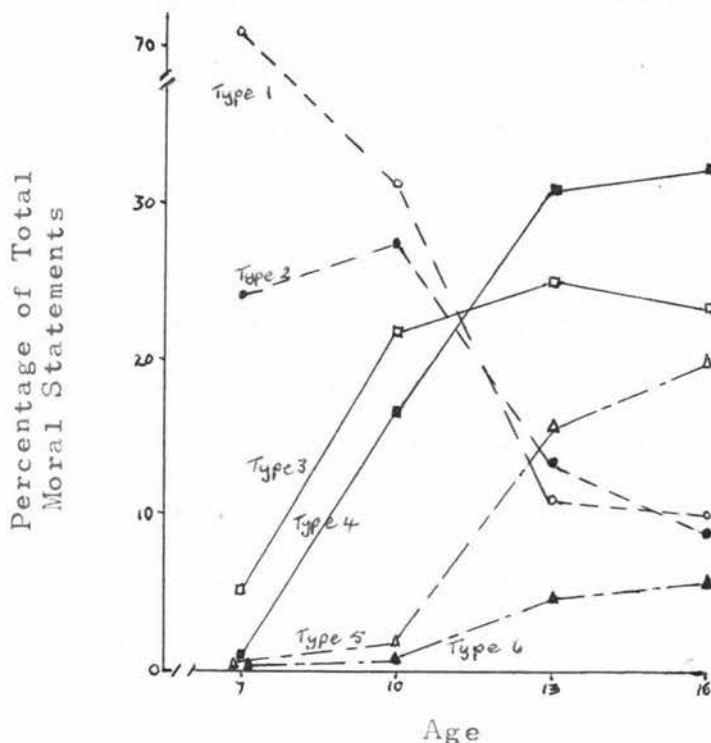


Fig. 1. Use of six types of moral judgements at four ages (Kohlberg, 1963, p 16).

levels, provided empirical support for his use of three levels (Kohlberg, 1958). However the data obtained by Kramer (1968) did not conform to this quasi-simplex pattern. His data suggested that strong links exist between stage one and stage four, and between stage two and stage five. There is the possibility that some subjects may move from modal stage one to modal stage four without ever using stages two or three modally. Justification of the reduction of responses measured along a number of different dimensions, to a single moral judgement stage was provided by factor analysis. The first factor of the unrotated matrix was highly loaded (.58 - .80) on all nine of Kohlberg's moral dilemma

situations (Kohlberg, 1958). Cross sectional age trends of boys aged ten, thirteen and sixteen years in Taiwan, Mexico, Turkey and Yucatan indicate that although cultural differences may cause differences in speed of development, the sequence of development is universal (Kohlberg and Kramer, 1969). Longitudinal study, involving follow up of subjects from Kohlberg's original study, provided strong evidence of the validity of the theory (Kohlberg, 1968) and led Kohlberg and Kramer (1969, p 103) to conclude that "the pattern of most of our longitudinal data is a pattern of directed irreversible one step progressions." Turiel (1966), Rest (1968) and Blatt (1970) obtained evidence, from training studies, that supported the sequentiality and irreversibility of the stages. Follow up of Kohlberg's subjects at age nineteen and twenty five showed that no new type of moral judgement emerged and that the overriding pattern after sixteen years of age was one of stability. There were no significant changes in proportion of stage usage; the small increase in stage six usage was not significant ($p < .15$). Kohlberg and Kramer (1969, p 106) consider that "adult development is primarily a matter of dropping out of childish modes of thought rather than the formation of new or higher modes of thought". A significant ($p < .05$) trend for subjects of stages four, five and six to reduce the amount of usage of stages other than their modal stage between approximately fifteen and twenty five years of age was found by Turiel (1969). There was no such trend among subjects whose modal stage was lower than stage four.

Kramer (1968) discovered retrogression between sixteen and nineteen years of age among twenty percent of his subjects. These subjects, who had displayed stage four and five thought at age sixteen used stage two "jazzed up with some philosophic and sociopolitical jargon" (Kohlberg and Kramer, 1969, p 109) at age nineteen. As all these subjects still used some stage four and five thinking, could use it on request and all returned to modal stages four and five by age twenty four, this retrogression was interpreted as being functional rather than structural and so did not contradict the theory. Similar relativistic responses were recorded among some college subjects by Haan, Smith and Block (1968) and by Sullivan and Quarter (1972). While Kohlberg sees this response to recognition of moral diversity and inconsistency in society as retrogression, Sullivan and Quarter have suggested that this type of reasoning can be more accurately viewed as the manifestation of two alternative modes of judgement which may occur between stages four and five and which can be seen as an advance on conventional morality.

It has been generally acknowledged that the connection between moral judgement and moral behaviour is loose. The same motivating force, disapproval by others, which leads the stage three child to judge cheating to be wrong also leads him to cheat when he can do so with little apparent risk of being caught, in order to gain approval by others. For individuals functioning at the third level however a closer correspondence between judgement and action would be expected. Kohlberg (1966) reported a study in which only one of the nine level three subjects cheated whereas approximately

one half of the level two subjects cheated. In another study (Kohlberg 1969) correlations of .46 between moral judgements and teacher's ratings of 'moral conscientiousness' and .54 with teacher's ratings of 'fairness with peers' were obtained. A correlation of .58 between peer ratings of moral character and level of moral judgement has also been reported (Kohlberg 1969).

Thus support for Kohlberg's theory can be obtained from logical analysis, empirical investigation of responses to moral dilemma situations and from investigations of predicted relationships between moral judgement and moral action.

At first Kohlberg (1958) was careful to point out that his stages defined ideal types, not persons, but it has become established practice by Kohlberg and his students to use the stages to describe persons. What is the evidence that "stage five subjects" exist? In much of their research they have used the modal score method to determine moral judgement level. The use of this method results in the ignoral of responses made at levels other than the most typical type of response used for a situation. The reduction of the nine situation scores to a single, stage label results in complete ignoral of the stage mixture profile. The evidence that horizontal *décalage* is the rule rather than the exception is strong. Table 1 (Kohlberg, 1958, p 104) shows that only fifteen percent of the subjects responded at their modal level for fifty percent or more, of their responses; for the remaining eighty five percent of subjects modal level responses were made to less than fifty percent of the questions.

STAGE

	1	2	3	4	5	6
65 - 70	2					
60 - 65	3	2				
55 - 60				1		
50 - 55	1		1	3		
45 - 50			2	3		
40 - 45	4	2	5	5	2	
35 - 40	3	3	7	5	2	3
30 - 35	1	2	8	5	2	
25 - 30	1	1	5	2		
TOTAL N = 86						

Table 1. Number of children for whom each moral stage is modal, distributed according to percentage usage of that type. (Adapted from Kohlberg, 1958, p 104)

Although it is possible that evidence of horizontal décalage is actually a measure resulting from a faulty testing instrument it seems far more likely that it is a reflection of the mixture of reasoning which children use. Kohlberg has used stage mixture as an explanation of the mechanisms of development. The child's use of more than one stage of moral judgement has been thought of as a source of the cognitive conflict which is thought to be necessary for upward movement to occur. McGeorge (1971) found that when the protocols of his intermediate school subjects were scored by Kohlberg's coding method the moral maturity scores on one situation were generally unrelated to scores on other situations. Only situations four and nine of Kohlberg's scale were related ($r_{xy} = .33, p < .05$). This is further evidence of stage mixture. Turiel (1969) considered it to be a prime necessity for advancement. The problem is that horizontal décalage can be interpreted as a cause or as a result of upward movement and

so the argument becomes largely circular. Moreover evidence obtained by Rest (1968) indicates that some individuals cannot recognise inconsistencies in levels of reasoning used in different situations. Unless differences are perceived, cognitive conflict cannot occur.

While it may be reasonable to explain the horizontal *décalage* in children, in terms of development, this is not possible in adults. Hence the expectation would be that little or no stage mixture would be present in adult reasoning. Little evidence about this is available but the little there is points to the existence of considerable stage mixture. Turiel (1969) found no significant change in stage mixture between adolescence and adulthood for those subjects scoring at stages one, two and three. Reported reasoning about actual conflicts the subjects had experienced indicates that adults do use different stages and that the stage used tends to be related to the conflict area (Butter, 1973).

Using rotated, principal components, factor analysis McGeorge (1971) found no general moral judgement factor. His first factor, accounting for forty three percent of the variance, was highly loaded on situations one, two and seven of Kohlberg's scale and was interpreted as being concerned with interpersonal, informal relations of the sort typically seen in a family. The second factor was highly loaded on situations three, four and six which involve inevitable death and both formal rules and sanctions and informal personal influences. The factor analysis in which Kohlberg (1958) obtained a single main factor, a moral judgement factor, employed data from a very wide age range. It may well be that had age been statistically controlled, no general moral

judgement factor would have emerged. The evidence suggests that, for children at least, the attempts to measure a sort of global moral judgement which ignores differences in score profiles and differences in the level at which they consider the different aspects of moral judgement, may be ill-conceived. Further evidence supporting this point of view comes from factor analysis of Piagetian moral dilemma responses. Johnson (1962) found that although the various aspects of moral judgement he measured were related to one another, the correlations were too low to support Piaget's analysis of moral judgement. Similarly MacRae (1954) found no general factor underlying all his moral dilemma questions, when age was controlled. Rest (1970) has also voiced support for more detailed scoring of protocols. McGeorge's study has made a strong case for the adoption of issue scoring for the scoring of moral judgements made by individuals who are still developing. An issue scoring marking guide has recently been devised by Kohlberg¹ but it is severely limited in usefulness by the requirement that experimenters intending to use this method of scoring undergo a two-week training course with Kohlberg. To date, the empirical evidence does not support Kohlberg's (1966, p 11) claim that there is "a high degree of consistency, a "g-factor" of moral stage from one verbal moral situation to the next." It is possible, however, that such a g-factor may be obtained from factor analysis of adult responses, as once development has ceased there is no theoretical basis for stage mixture.

¹Cited by McGeorge, 1971.

It was previously noted that there is now a general acceptance of the need to use all six stages but are all these stages necessary? Does stage one 'avoidance of punishment' differ sufficiently from and appear in sequence before stage two 'satisfaction of own needs'? Although Kohlberg has not discussed a period of amoral behaviour, parallel to Piaget's first stage, it is apparent that his first two stages are not simply concerned with behaviour modification through the manipulation of positive and negative reinforcers. Kohlberg's claim that naive instrumental hedonism is a stage which follows a period of punishment and obedience orientation is based largely on cross sectional evidence obtained from seven and ten year olds. It may be that these two orientations develop in parallel but that the instrumental hedonist orientation becomes more dominant as the child develops. A longitudinal study of subjects four to eight years of age would help to provide the evidence required. Kohlberg (1963) has suggested that his second stage explains the same evidence as does Piaget's autonomous stage. While there is some evidence in common it is apparent that Piaget's description of autonomous judgements is a description of a level of thinking which is considerably in advance of naive instrumental hedonism, e.g. there is no possibility of Kohlberg's stage 2 subjects tempering their judgements by considerations of equity. Moreover whereas Piaget considered the development of definitions in terms of intentions, to be so important to the development of the stage of autonomy as to be the single most important indicator of development, it is not until Kohlberg's stage 3 that definitions are made "in terms of

'intentions', of inner attitudes of liking and 'helping other people' " (Kohlberg, 1963, p 25). Thus while Kohlberg has drawn on Piaget to help distinguish between and support the sequentiality of his first two stages he has not considered the development of intentionality to be important to the change. There is little evidence to suggest that there is a sequential change from evaluation in terms of punishment and obedience to evaluation in terms of private needs. The possibility of parallel development with the eventual dominance by the second type of orientation remains, i.e., the change may be quantitative not qualitative.

In what way is stage six reasoning higher than stage five reasoning? By drawing on philosophical analysis a case can just as easily be made for the superiority of stage five judgements as for judgements made at stage six. The evidence that stage six develops after stage five is meagre. Studies of young adults (Haan, Smith and Block (1968); Holstein (1968); Kramer (1968)) have shown that only about four percent of the subjects operated at stage six. The longitudinal study evidence that stage six develops after stage five depends on a non-significant increase in usage. The differences between stages five and six are not clearly defined in the scoring guides e.g. when global scoring of situation eight a stage six response is defined as "type five with a much stronger concern about abetting an act of injustice" (Blatt, 1970, p 107) and for situation four no description of a stage six answer is given. Kramer (1968) reported interjudge reliability to be lowest for stage six; $r_{xy} = .76$ when the coding score method was used and correlations of .55 and .67

between global and code scores of different judges. More detailed descriptions of stage six responses are needed and substantial longitudinal evidence of sequential development is required before we can rule out the possibility that stages five and six are alternative forms of post conventional reasoning that develop in parallel.

Finally, a number of questions which will be examined later in this thesis in greater depth. What are the relationships between moral judgement development and other aspects of ego development? Do the "higher types of moral thought replace, rather than add to the lower modes of thought" as Kohlberg (1963, p 16) claims?

CHAPTER TWO

CORRELATES OF MORAL JUDGEMENT

Both Piaget and Kohlberg theorised that the level of reasoning employed when moral judgements are made is related to the level of intellectual functioning the individual is capable of. A number of researchers (Whiteman and Kosier (1964), Porteus and Johnson (1965), Cudrin, (1966), Hardeman (1967), Stuart (1967), Nelsen, Grinder and Biaggio (1969), Kemmler (1970) using a variety of intelligence tests, subjects ranging from kindergarten to high school pupils and either Piaget- or Kohlberg-based tests of moral judgement, have reported finding significant relationships between these two variables. Selman (1971) found no association between these two variables in subjects aged six, eight and nine years. Kohlberg (1969b) reported correlations ranging from .30 to .50 but he claimed that the relationship was not linear as it was only found in children of below average intelligence. A re-examination of the Nelsen, Grinder and Biaggio (1969) data by Nelsen, Grinder and Challas (1968) revealed that when the subjects were separated into high, middle and low I.Q. groups the only significant relationship between I.Q. and moral judgement ($r_{xy} = .53$) was found in the low I.Q. group. Moir (1971) found I.Q. to be more highly related to moral judgement in the lower I.Q. half of his sample. Holstein's (1969) failure to find a significant relationship between I.Q. and moral judgement in a sample of subjects who were all above average in I.Q. adds additional support to Kohlberg's contention. The issue has recently been brought into question again, however, by McGeorge's (1971) finding of a higher

correlation ($r_{xy} = .44$) in the highest I.Q. half of his sample. The correlation for those with I.Q.s below the sample mean was not significant.

Central to cognitive developmental theories is the assumption that a cognitive core underlies all rational behaviour. From this it follows that the level at which moral judgements can be made is limited by the level of cognitive functioning. Significant relationships between Piaget type measures of cognitive level and measures of moral judgement level have been reported by Hardeman (1967), Stuart (1967), Dilling (1967), Kemmler (1970), Moir (1971) and Lee (1971). Kohlberg claims that Piagetian tests of intellectual development are more closely related to moral judgement level than are conventional I.Q. tests. This claim appears to be supported by Sullivan, McCullough and Stager's finding of an overall correlation of .62 between moral maturity and conceptual level. At each age level separate correlations of .35 (age twelve) and .52 (age fourteen) were obtained. A low, non-significant correlation of .19 (age seventeen) may have resulted from imperfections in the measuring instrument or it may reflect a change in the relationship between these two variables, a change brought about perhaps by the lack of variability on the cognitive development dimension. Hardeman (1967) however, found no evidence that Piagetian moral judgement level is more closely related to tests of logical ability than to I.Q. Children able to conserve have been found to have moral judgement scores which range from low to high whereas those children not able to conserve had low moral judgement scores (Hardeman, 1967). This finding supports

the contention that reaching a given cognitive level is a necessary but not a sufficient condition for functioning at a given level of moral judgement.

A specific aspect of cognitive development that seems to have special relevance to moral development is the development of broader view-points. The ability to shift perceptual perspectives and social perspectives, group acceptance and need for group acceptance appear to be factors which could have major influence on moral judgement. Young children who are not capable of decentring and who have no lasting need for group affiliation are unlikely to formulate stage three moral judgements based on a need to maintain good relations with others in order to gain their approval. Using subjects aged eight to ten years Selman (1971) found that the majority of those operating at the pre-conventional moral level were not at the reciprocal level on Flavell's role taking measure but the majority at the conventional level did display reciprocity. When I.Q. was controlled the relationship was found to be limited to those in the middle I.Q. range (I.Q. 109 - 120). Selman considered that this indicated that within the limits of his sample of eight to ten year olds only in the middle I.Q. range was there sufficient variation in role taking ability for this aspect of cognitive development to correlate significantly ($\text{Tau} = .463, p < .01$) with moral judgement. A follow-up one year later of ten of the subjects who had scored low on both measures revealed that no subjects had reached a conventional level of moral judgement without also becoming capable of reciprocal role taking though some were capable of reciprocal role taking yet had not reached

the conventional moral judgement level. Evidence supporting the notion that egocentric thought limits moral reasoning was also obtained by Stuart (1967) who found a significant difference between the ability of morally mature and morally immature children, to decentre; social decentration was the most important factor. Moir (1971) compared interpersonal, quasi-personal and perceptual role taking abilities with moral reasoning. He found interpersonal role taking to be no more highly related to Kohlberg moral maturity scores than were the other two measures. A multiple regression analysis showed that 43.8 percent of moral judgement variance was accounted for by non-moral measures of role taking. A major study by Dilling (1967) using 108 fifth and sixth grade subjects produced results which are more complex and difficult to interpret. He found a significant negative correlation between "obedience to moral authorities" and ability to shift perceptual perspective, in males but not in females. Similarly, only for males, a highly significant positive correlation between "humanistic orientation" (defined in terms of personal reciprocity and principles) and ability to shift social perspectives was found. While the results from the male subsample are congruent with the findings of other researchers, those from the female subsample conflict.

A third aspect of cognitive development that has been related to moral development is that of cognitive complexity. Arronfreed (1968) has predicted that moral judgement will be found to correlate more highly with cognitive complexity than with I.Q. A connection between cognitive complexity and social perception has been found by a number of researchers (Bieri

1955, 1961, 1966; Kelley, 1955; Ehart, 1957; Leventhal, 1957; Sechrest and Jackson, 1961; Leventhal and Singer, 1964; Shrauger and Altrocchi, 1964; Crockett, 1964). Cognitive complexity appears to be related to the ability to perceive another's perspective accurately (Bieri, 1955). Predictably, the cognitively more complex individuals would be less likely to suppress or reject dissonant information and so would be more likely to experience cognitive conflicts. If, as Turiel (1966, 1969), Blatt (1970) and Holstein (1969) have found, cognitive conflict enhances moral development, then a positive correlation between cognitive complexity and moral judgement should exist. The Tripodi and Bieri (1966) and Tripodi (1967) results indicate a connection between cognitive complexity and the projection of interpersonal conflict into an imaginary conversation. Koenig, Jefferson, Newland and Sturgeon (1973) found cognitive complexity to be related to moral judgement but Moir (1971) found no relationship when I.Q. was statistically controlled. Wicker's (1969) finding that cognitive complexity in a domain is related to the frequency and intensity of interaction within that domain, seems to indicate that measures of cognitive complexity per se, are too broad and that perhaps we should really expect moral judgement development to be related only, or most closely to, cognitive complexity within the values domain. Narrowness within this domain is included in measures of authoritarianism and dogmatism but there seems to be a need for an instrument that is specifically designed to measure cognitive complexity in this field.

The ability to take intentions into account when making judgements may also be viewed as an aspect of cognitive development. Change on this dimension was viewed by Piaget (1932) as so important that intentionality could be used as an index to separate the heteronomous from the autonomous. Although change on this dimension is also necessary if progress through Kohlberg's stages is to take place, the change is only one of many that must occur. It is possible for the individual to have developed the ability to consider the intentions of others and yet to retain instrumental hedonistic reasoning. For this reason and also because the moral judgement theories were devised before much of the recent information regarding changes in intentionality was available, this dimension has been considered here with other cognitive dimensions central to reasoning, as a correlate of moral judgement.

From clinical observation and limited survey research Piaget (1932) concluded that young children do not deem intentionality relevant for moral judgement. Although he noted that children were more likely to consider intentions where their own memories of real events were concerned, than when considering a moral dilemma story, he suggested that this was the result of a time lag between the practical and the theoretical situations. Thus Piaget describes children of approximately up to eight years of age as moral realists. The bulk of the experimental evidence suggests that Piaget's results were partially an artefact of his method. In Piaget's stimulus stories intentionality is not clear and intentions are confounded with consequences. Ilan and Tan (1969) found that all their third grade subjects considered intentions more

than consequences. Using revised stories that clearly contrasted a purposive act with an accidental act Armsby (1971) found that sixty percent of the six year old subjects made judgements based on intentions. But as the level of bad consequences increased these subjects were more likely to revert to consequence based judgements than were eight and ten year olds. Baldwin and Baldwin (1970) found significant movement toward adult like judgement on half of their story situations between five and seven years of age. By constructing stories with which the responses to negative and positive intentions and consequences could be examined Costanzo et al. (1973) have shown that age differences in the use of intention are a function of the valence of the consequences of an act. Older children took greater account of intentionality when bad consequences resulted from an act but when the consequences were positive there was no significant difference between the age groups, the youngest of which had a mean age of five years ten months. Buchanan and Thompson (1973) employed a quantitative methodology to examine the status of intentionality in a group of subjects of whom only two out of the fifty could be classified as being as advanced as to be in a state of transition from heteronomy to autonomy according to Piaget's method. The subjects were required to indicate quantitatively, the amount of punishment deserved by, or the degree of badness of, the story character. The results show that morally objective children are capable of qualifying their moral judgements on the basis of intent. These studies show that Piaget over-estimated the age at which intentions become a factor influencing moral judgement. More importantly, they

suggest that rather than a change in the ability to consider intentions resulting in more mature moral judgements, the ability is there sometime before intentions are understood to be relevant to all situations.

Piaget's (1932) finding that intentionality had reached a maximum by eleven years of age appears to have resulted from the fact that his stories are insensitive to further development. A unidimensional scale of the use of intentionality developed and used by Breznitz and Kugelmass (1967, Kugelmass and Breznitz, 1968) showed that intentionality scores increased from eleven to seventeen years of age. Hence it seems probable that the ability to take account of intentions develops from at least four to seventeen years of age. That there is a relationship between this ability and moral judgement seems fairly well established for individuals in middle childhood; it is probable that this relationship continues into adolescence.

Kohlberg has viewed the development of moral judgement as an aspect of ego development:-

"moral judgement development is a process which takes place in a larger or more inclusive system (the ego) which at the same time is going through changes in functional capability and content focus..... Spontaneous level of moral judgement is the product of developed cognitive structural capacity and interaction with the general level of ego development."
(Kramer, 1968, p 17)

Correlations would also therefore be predicted between moral judgement stage and those less cognitive aspects of ego development frequently referred to as dimensions of personality.

Sullivan et al. (1970) found Global moral judgement¹ correlated .48 at age fourteen years and .54 at seventeen years of age, with Loevinger's ego development scale. The correlation for subjects aged twelve years was not significant. Attention, which may be considered to be an aspect of ego strength, was measured by the standard deviation of reaction time by Grim, Kohlberg and White (1968). A small standard deviation was equated with a high level of attention to the set task. Attention correlated .61 (first grade subjects) and .59 (sixth grade subjects) with moral judgement maturity. Hare (1969) found that changes in moral judgements that follow success or failure are related to autonomy and creativity. Highly autonomous subjects did not alter the bases for their moral judgements after experiencing success or failure. The highly creative but low autonomy group became more flexible after failure and more conforming after success, while those low on both measures were more conforming after failure and more asocial after success. Hogan and Dickstein (1972) examined the relationship between moral maturity, measured by their own Kohlberg-based scale, and a number of personality dimensions, in college age subjects. Moral maturity was found to correlate .32 ($p < .05$, one tailed test) with C.P.I. socialization, .48 ($p < .01$) with a C.P.I. based empathy scale, .36 ($p < .01$) with autonomy and $-.34$ ($p < .05$) with moral rationalism (Hogan, 1970). Kemmler et al. (1970) also found moral maturity to be positively related to perceived responsibility for success or failure in eight and nine year old boys. These

¹Global moral judgement refers to one of two possible scores obtained from Kohlberg's questionnaire.

who display an ethic of personal conscience score higher on the moral judgement scales. A correlation of $-.52$ between moral maturity and authoritarianism has been found by Kohlberg (1964). This finding supports the evidence relating to cognitive complexity. A possibly related finding is that subjects high on religious values tend to make harsher judgements than those who score highly on political values of the Study of Values scales (Klinger et al., 1964). Those with high religious values may be more likely to reject values that do not conform with their existing set and so would possibly experience less cognitive conflict in this sphere. Haan Smith and Block (1968) reported that the self and ideal-self conceptualizations of a college student sample showed that by comparison with subjects at the conventional level of moral reasoning those who reasoned at the principled level emphasised interpersonal reactivity and obligation and self expressiveness, and tended to reject traditional values. Those functioning at the conventional level emphasised self-control, conventional values and social skillfulness. Those at the pre-conventional second stage tended to be concerned with personal fulfillment. Unfortunately the significance levels of these differences were not reported: where the results of Scheffé multiple comparison tests were given probabilities of $p \leq .10$ were interpreted as if they were significant.

The relationship between moral judgement and super ego strength has also been investigated. Ruma (1967) found significant differences between a group of delinquents and a control group, on measures of guilt and performance of

delinquent acts but not in moral judgement level. However moral judgement and guilt together sometimes enhanced prediction of moral behaviour. Kohlberg's (1966) and Freundlick and Kohlberg's (Kohlberg, 1971) finding of significant differences between level of judgement of delinquents and non-delinquents is contrary to Ruma's results and so the question of the relationship between guilt and moral judgement remains open. Results obtained by Birnbaum (1972) indicate that rigidity of moral judgement can be influenced by procedures designed to change the intensity of guilt feelings. He also claimed that the increased flexibility in a peer oriented condition was not a mutual egalitarian co-operation but a reaction to a threatening arousal over concern for acceptance by peers. Thus, while the motive force of the change may have been decrease in guilt it may have been increase in anxiety regarding social acceptance by peers or a combination of these two.

Some attempts have been made to investigate the influence of social factors. Maturity of moral judgement has been shown to be unrelated to membership of Scouts or Guides or to Sunday school attendance but to be positively related to attendance in ungraded classrooms (Whiteman and Kosier, 1964). Fodor (1969) used the Cornell Parent Behaviour Description to dichotomize fourteen to seventeen year old male subjects on each of fourteen dimensions. Instrumental companionship, i.e. mother's willingness to assist children in learning activities was negatively related to moral judgement maturity. This unexpected result may perhaps be interpreted as indicating that moral judgement is related to a mother's desire for her children to become independent. From data obtained from a parent questionnaire Kuranuki (1968) has shown that a democratic domestic

atmosphere related to the selection, by four to eight year old subjects, of punishment by reciprocity: autocratic domestic atmosphere related to expiatory punishment choice by the children. Similarly, Ford (1969) found that extremely open-minded teachers (the extreme six percent) of grades four, five and six, had pupils who scored higher on the STEP Social Studies Form B test. A finding which runs counter to these is Cudrin's (1966) finding that there was no difference in moral judgement level between children of parents with fundamentalist religious attitudes and those with humanitarian religious attitudes when age, I.Q., socio-economic class and parental education level were controlled. Haan et al. (1968) found that principled level students perceived their relations with their parents as involving greater conflict than did conventional level students.

Johnson (1962) and Kemmler (1970) have found children's moral judgement to be positively related to socio-economic class, and Fedor (1969) found higher moral judgement scores among those subjects whose mothers had graduated from high school. Kohlberg (1971) has found that low socio-economic class youths placed in a Kibbutzim achieve higher moral judgement scores than do similar youths who remain in the city. Kohlberg has proposed that this difference is related to the increased amount of dissonant information that those youths placed in Kibbutzim, are subjected to. Differences relating to socio-economic class and parent education could be similarly explained. There have, however, been a considerable number of studies in which no significant differences have been found. Porteus and Johnson (1964) found moral judgement to be unrelated

to socio-economic class and Fodor (1969) found no difference in moral judgement level between socially disadvantaged Negro youths and a randomly selected group of white youths who were matched in terms of I.Q. and age. No association between moral judgement and family size or any of six social rating scales was found by Cudrin (1966) in subjects from kindergarten to sixth grade. More research is needed here before it can be said with any certainty that there are socio-economic differences and which aspects of class are causing differences.

The majority of studies into possible sex differences in children's moral judgements have found no significant differences (Boehm and Nass, 1962; Whiteman and Kosier, 1964; Turiel, 1968; Holstein, 1969; Sullivan et al., 1970; Selman, 1971; Krebs, 1969). Where differences have been found the results conflict. Ilan and Tan (1969) found girls to be more punitive but Porteus and Johnson (1965) found them to be more mature. Although the sex of subjects did not influence severity of moral judgement, Klinger et al. (1964) found that the interaction of the sex of subject with the sex of the stimulus story character was significant. Subjects were less severe on like-sex story characters than they were on across-sex story characters. This appears to be related to Maccoby and Wilson's (1957) finding that subjects identified more closely with like-sex story characters and with those of the social class aspired to. Although most studies have shown no sex differences and there is confusion about the direction of difference in those studies showing one to exist, it seems that greater care should be taken in matching subjects with story character stimuli to enhance identification.

Sex differences in adults appear to be clearer.

Holstein (1969) found that while the fathers of her subjects tended to have stage four moral judgement, the mothers tended to respond at stage three. Haan, et al. (1968) found that the percentage of their female college student subjects functioning at stage three was twice as large as the percentage of men at that stage. There was a significant tendency for the men to function at a higher level. Kohlberg and Kramer (1969) concluded that females tend to stay at stage three; that this is a functional morality of housewives. And Haan (1971) proposed that, as this stage is, for housewives, in harmony with cultural expectations, they tend to receive insufficient dissonant information to initiate a change to higher level judgements. A study of adults by Weisbroth (1970) revealed no sex differences in moral judgement but as all the subjects were working sub-professionals a stage three morality of submission to informal approval or disapproval would probably not fulfil cultural expectations of people holding these positions. Moreover, the greater cultural diversity they would presumably experience may be expected to generate greater conceptual conflict and so enhance the development of higher levels of judgement. It must be recognised, however, that this does not explain the sex differences found by Haan et al. (1968).

CHAPTER THREE

EXPECTATIONS REGARDING PERSONALITY CORRELATES
OF MORAL JUDGEMENT LEVEL IN ADULTS

Moral judgement, viewed from Kohlberg's cognitive developmental perspective, is seen as an aspect of ego development, which though closely related to other aspects of ego development, must be conceptualized as a distinct domain. The hierarchic model which contributes to the understanding of development in the cognitive and moral judgement domains does not fit the knowledge we have regarding other areas of ego development. Erikson's embryonic model of ego development seems to provide a more adequate description of change in these areas. Although two different models are used to describe different aspects of ego development, Kohlberg believes that the level of moral judgement depends on non-cognitive aspects of ego development interacting with the cognitive aspects.

It has been shown (Kramer, 1968) that movement up the hierarchy of moral judgement ceases at about sixteen years of age and a number of researchers (Freedman and Bereiter, 1963; Gough, 1957; Kelly, 1955; Tyler, 1961; Bauman, 1951; Fliegel, 1955; Symonds, 1961; Nelson, 1954) have found considerable stability on various other aspects of personality from late adolescence. Beyond late adolescence changes in moral judgement level and in other aspects of personality may perhaps be more adequately accounted for in terms of specific experiences, i.e. from a sort of developmental task perspective. Although there is some evidence that the main aspects of ego development

have stabilized by early adulthood and that there is a general theoretical expectation that moral judgement be related to other aspects of ego development, there is very little empirical evidence regarding personological correlates of adult moral judgement. In one of the three studies in this area (Hogan and Dickstein, 1972) the measure of moral judgement was claimed to be based on Kohlberg's theory but the method of measuring involved was a gross departure from Kohlberg's and no attempt was made to test congruent validity. The Haan et al. (1968) study reported results of an analysis of the data of those 56 percent of subjects whose moral judgement responses met the theoretically expected level of homogeneity. Moreover insufficient statistical information regarding multiple comparison was reported. The other study (Sullivan et al., 1970) provided empirical support for the connection between logical thinking ability and moral judgement. However the other significant correlation they found, between moral judgement and ego development, may simply be a reflection of the similarities between the two scales, as Loevinger's levels of development have very similar motivational bases to Kohlberg's.

The relationship between Piagetian cognitive stage and moral judgement in children has been found by a number of researchers. If, as appears from the evidence presented in Chapter 2, cognitive abilities are necessary but not sufficient condition for advancement in moral judgement, lack of cognitive ability may perform a limiting function. In adult samples where there is a range of cognitive development a correlation between this and moral judgement would be expected. Thus

adults unable to perform at Piaget's formal operations level may be expected to be limited to an upper level of Kohlberg's stage four moral judgement. In samples of college students however, a lack of variability on the Piagetian cognitive dimension may occur as it is probable that all or almost all of these subjects are capable of operating at the formal operations level. Failure to find significant correlations between these two variables, in a college sample would not be surprising and could not be interpreted as showing these variables to be unrelated in adulthood; in a more representative sample of the total adult population it is highly likely that a relationship exists.

The relationship between I.Q. and moral judgement in children is not clear. It is now well established that Piagetian cognitive development measures and I.Q. share some common variance and so it may be that the relationship between I.Q. and moral judgement results from those parts of I.Q. tests most concerned with logical abilities. Studies in which differences in Piagetian cognitive development level are statistically controlled are needed so that it can be determined if any other factor included in traditional intelligence tests relates to moral judgement. As responses on moral judgement measures are open-ended, the subject's score depends not only on the ability to reason but also on the ability to express these reasons in a manner comprehensible to others. It therefore seems likely that moral judgement level will be found to correlate with verbal facility: this correlation may well be higher in adult populations in which cognitive development level has ceased to be an important factor because of lack of variability.

The third aspect of cognitive development which may be predicted to relate to moral judgement level is cognitive complexity. A major problem here is that cognitive complexity does not appear to be a unitary construct. A factor analysis of several measures of cognitive complexity revealed that they shared little variance in common (Vannoy, 1965). This finding taken in conjunction with Wicker's (1969) contention that cognitive complexity is to some extent domain specific, points to the probability that any correlation between moral judgement and cognitive complexity would be with complexity in the values domain. The closest existing measures in this area are the Authoritarian and Dogmatism scales and the tolerance and flexibility scales of the Californian Psychological Inventory. This reasoning taken in conjunction with Kohlberg's (1964) reported correlation of $-.52$ between Californian F-test scores and moral judgement leads to the conclusion that the relationship expected is not so much with a cognitive dimension but with an affective response to values other than their own. To the highly authoritarian personality moral judgement involves the comparison of circumstances with ready made rules and sanctions: contrary values and rules are rejected not on rational grounds but because they don't conform to their existing code. Moral judgements made on this basis would best fit level two reasoning. In adult samples significant differences in authoritarian scores would be predicted between those subjects at moral judgement levels two and three. Similar predictions would be made for other measures tapping tolerance in the values domain.

Although there has been practically no research into personality correlates a number of other predictions can be

made. The self actualized person is described as an adult who operates at the highest levels. He is an inner directed person guided by internalized principles and motives whereas other directed persons tend to be guided by external forces including their peer group. Thus a person scoring highly on scales of self actualization would also be expected to operate at Kohlberg's level three whereas the other directed individuals would be expected to operate at level two. A curvilinear relationship may exist here however, as the instrumental hedonist is also inner directed and extreme autonomy would presumably result in a complete disregard for the welfare of others.

Empathy may also have a curvilinear relation with moral judgement. In children the development of empathy is probably necessary for the development of stage three moral judgement but less important at the third level. It is possible that empathy has a modifying effect on the influence of autonomy. Hence subjects high in both autonomy and empathy would have the combination of independence and respect for their fellows necessary for judgements at stages five and six. Those high on autonomy but low on empathy and thus lacking in feeling for and respect for their fellows would probably function at stage two while those high on empathy but low on autonomy would tend to rely heavily on significant others and so would probably function at stage three. The case of subjects low on both measures is more difficult to predict; they may tend to function at stage one motivated by punishment, or at stage three motivated by anxiety regarding peer rejection or stage four motivated by guilt. It must be remembered however that the only empirical study in this area found significant linear relations between both autonomy and empathy and moral judgement level.

Two major personality dimensions not yet considered are those of extraversion, introversion and anxiety. No prima facie case can be made that could predict relationships with the extraversion, introversion dimension. It may be that this dimension of ego development is irrelevant to moral judgement or it may be that it only becomes relevant when in combination with certain other factors. It seems likely that anxiety could place a limit on moral judgement development. A person who is highly anxious would probably be more likely to operate at stage four or below as the type of individual decision required at the higher stages, especially stage six, would probably promote too much anxiety. Similarly it seems unlikely that the highly anxious individual would feel free enough of the opinions of others or have the individual confidence to operate at stage two. In fact it seems likely that the factors of anxiety and empathy may be confounded when attributing motive to conventional level judgements.

Some evidence has been put forward that suggests that the values domains that people deem to be important are related to moral judgement (Klinger et al., 1964). But it may be that this relationship would not appear if relevant personality factors were controlled. Thus higher religious values may be related to higher dogmatism or authoritarianism, or lower autonomy and with these factors controlled there may be no significant relationship.

The fact that the expectations of adult correlates of moral judgement presented in this chapter have relied almost entirely on extrapolation from child data and on reasoned speculation, underlines the need for research in this area. It was the purpose of this thesis to empirically investigate this problem.

CHAPTER FOUR

METHODSample

The purpose of this research was to investigate possible correlates of mature moral judgement, i.e. to investigate the relationships between moral judgement level after developmental change on this dimension has ceased and other aspects of ego development. In selecting the population from which to obtain a research sample it was necessary to consider the evidence presented in Chapter One regarding the age at which moral judgement stage stabilizes. The evidence from longitudinal study is that no significant progress occurs after sixteen years of age. The possibility that a small proportion of college age persons undergo a functional regression is meagre. It depends almost entirely on Kramer's (1968) study in which two different methods of measuring moral judgement were used without experimental control over those measured by each procedure. As it was not possible to obtain an adult sample other than college students, over which there could be sufficient control in the testing situation, or in sufficient numbers, it was decided that any subjects scoring mainly at stage two and hence being possible functional regressors could be dealt with by appropriate analysis.

In this investigation the sample obtained consisted of eighty two first year student teacher volunteers from the Palmerston North Teachers College. By obtaining the experimental sample from this group it was ensured that all subjects were over sixteen years of age. It was not possible to use second or third year students as they had already studied

Kohlberg's theory. Of the eighty two volunteers there were fifty males out of a first year male population of eighty six and thirty two women obtained from one half of the first year female population, i.e. from a population of one hundred and fourteen. Although the advantages, in terms of generalizations that could be made, of random sampling were recognised this was not possible. Because of the status of the students within the institution and because of the nature of the data being gathered it was only possible to use volunteers and all those who volunteered were used as subjects. It should be recognised that the proportion of the populations who volunteered, especially for males, was high. The high proportion of volunteers was attributable, in part at least, to considerable public relations and recruiting activity and to careful timing of experimental sessions. The percentage of volunteers of males and females combined was forty percent of the population. This may be compared with a volunteer sample of approximately seventeen percent obtained by another researcher working in the same institution. Moreover, all the volunteers for the research reported here completed all the measures required compared with a completion rate of one third in the other piece of research. Thus it can be seen that although random selection was not possible, the sample was more representative of the population than many volunteer samples are.

Measuring Instruments

Use of Kohlberg's (1958) interview method in this research was discarded for the following reasons:-

(a) A substantial number of subjects were to be tested and the hour and a half per subject interview was too demanding in terms of time required, i.e. approximately one hundred and twenty hours of interviewing for the number of subjects used.

(b) Subjects were available for a very limited period of time each week and so it would have been difficult to prevent dissemination of information to subjects yet to be tested, about the content of the questionnaire, over the long period required to interview the subjects.

(c) A counter-balanced design in which testing sessions were supervised was considered desirable.

(d) The Kohlberg interview had been administered as a written questionnaire by Kramer (1968), Haan, Smith and Block (1968), Sullivan, McCullough and Stager (1970) and probably by Blatt (1970).

The only comparison between results obtained by interview and those obtained by written questionnaire indicated that when the questionnaire was used more subjects gave stage three answers (Kramer, 1968). This written questionnaire was used by Kramer as if it was an equivalent form of the Kohlberg interview. Neither Kramer nor Haan et al. nor Sullivan et al. have published the questionnaire they used. In some preliminary testing with adult subjects the original Kohlberg interview schedule was used but the subjects were asked to make written responses. It took an hour and a half to two hours for the subjects to complete and was difficult to score as some subjects spent considerable energy in writing around the

questions and avoiding making judgements they would have to justify. In order to reduce the time taken to complete the questionnaire it was decided to reduce the number of stimulus situations from nine to four. Abbreviated versions of the Kohlberg interview employing four situations have been used by other researchers (Haan et al., 1968; Blatt, 1970; and Selman, 1971). Blatt's version of the Kohlberg interview schedules was used as the basis for the questionnaire used in this study. There is some doubt as to whether Blatt obtained oral or written responses. The instructions to subjects were for written responses, "Please write down all the ideas and feelings answers can be written or typed." (Blatt, 1970, p 110) but in the body of the thesis he discussed interviewing the subjects, "The interviewer recorded the responses verbatim." (Blatt, 1970, p 18). Some of the questions posed by Blatt were quite different from those contained in the original Kohlberg scale and were not specifically provided for in the scoring codes, e.g. of each situation his subjects were asked to state the particular moral problem involved. Other questions required repetition of ideas, e.g. for each situation subjects were asked to give the best reasons both for and against making the judgement and were also required to give the reasons why they made the judgements they did. By omitting these unnecessary questions the questionnaire was reduced to sixteen questions, four per situation, and the time taken to answer the questionnaire was reduced to an average time of approximately forty five minutes. Although the initial probing questions used by Kohlberg appear to be designed to force subjects to make a judgement which they are

then required to justify, these questions did not necessarily have this result when the questionnaire was answered in written form in preliminary testing. Kramer (1968, p 145) has pointed out that "Type 4 thinking is formal approval oriented and as such is law abiding. For this reason the subject need feel no pressure to justify his answers. Therefore while the questionnaire subject may write down a perfunctory type 4 judgement he will not go on to justify his answer or to elaborate the reasons behind his judgement. On the other hand, in the Interview situation when a subject responds with a type 4 statement, he is questioned as to why." It was therefore decided to present subjects with a forced choice where they were required to take a stand by crossing out one of the possible alternatives. They were then required to justify their decision. In preliminary testing not all subjects always responded by crossing out one of the alternatives but they had had to face the choice and to justify their decision not to choose one alternative over the other and were unable to avoid making a judgement and justifying it. The direction of choice was not viewed by Kohlberg as an important element in scoring responses and so it was considered that presenting a forced choice would not alter the level of reasoning. "Our analysis commenced with a consideration of the action alternatives selected by children. These analyses turned out to shed little light on moral development. ---- The child's reason for his choice and his way of defining the conflict situations did turn out to be developmentally meaningful, however." (Kohlberg, 1963, p 12).

A preliminary investigation of the version of the Kohlberg scale used in this research was conducted in order to

test its congruent validity with the same four situations examined by interview using Kohlberg's original interview schedule. A randomly selected subsample of ten males was assigned randomly to two experimental conditions. Each group of five subjects was administered each version of the moral judgement questionnaire with an interval of one week between testing. The interviews were tape-recorded and administered on a one to one basis. No time limits were imposed. The two groups of five subjects were presented with the tests in opposite order. This counter-balanced design was considered necessary so that any regression in scores related to the re-testing situation would be controlled for. Evidence that regression may be expected comes from Merchant and Rebelsky (1972), Le Furgy and Woloshin (1969), Kramer (1968) and Turiel (1968)¹. The data presented by Kramer however showed that whether regression was measured depended upon which of two scoring procedures was used. The effect of re-testing was not clear but the use of a counter-balanced design eliminated the possibility of finding differences which could be attributed to that factor.

¹ e.g. Turiel recorded a major drop in control group retest scores.

		Type of Test	
		Oral	Written
Order of Testing	1st.	Grp. B	Grp. A
	2nd.	Grp. A	Grp. B

$$n(A) = n(B) = 5.$$

Fig. 2. Experimental design of investigation of validity of the scale of moral judgement designed for written responses.

A t-test for related measures was used to test the significance of the difference between the mean scores for the combined groups of subjects on the two types of test. $t = -0.13$ ($p > .55$, $df = 9$) showed no significant difference between the moral maturity scores gained on the two measures and so it was decided to use the written questionnaire² to obtain moral judgement scores in the main piece of research.

The remaining forty men and thirty two women were used as subjects for the major research conducted.

In the intellectual development area it was decided to obtain two separate measures, a verbal facility score and a cognitive development score. The case for obtaining separate scores was presented in chapter three. The Mill Hill Vocabulary Test was chosen to indicate verbal facility as it is a relatively brief and simply administered test. This was important as a number of tests had to be administered at each

²See Appendix A.

session in order to limit the number of sessions to a level acceptable to volunteers. Moreover this test is particularly suitable for college students.

It was important that the cognitive development score should accurately measure the extent to which the subjects were capable of functioning at Piaget's formal operational level and that the score should not depend on any other factor such as verbal facility. The only accurate way of obtaining such a measure appeared to be through the use of Piagetian individually administered tests. The pendulum and balance tasks were chosen³ (Piaget, 1958) but the results of the pendulum task had to be abandoned when it was discovered that subjects studying science had experimented with and discussed the principles of pendulums during the week prior to testing. The subjects were permitted to handle the apparatus and were required to solve some simple questions using the apparatus. They were then given three tasks, the responses to which were to be scored for developmental level: (a) state a general rule that could be used to solve all possible problems that could be solved on the balance; (b) solve a problem; (c) explain how the problem was solved.

As this research was concerned with a search for related variables in an area in which very little research had been conducted it was thought advisable to measure a wide range of variables. To this end, a number of personality tests were included. From the wide range of personality and attitude questionnaires available, a number were chosen for use in this study. The choice was made according to how well

³See appendix C for description of balance task.

the tests met three criteria; (a) they had scales measuring facets of personality which had been found by others to be related to moral development; (b) they contained scales related to aspects of ego development which seemed likely, on theoretical grounds, to relate to moral judgement; (c) they contained scales which have frequently been found to provide meaningful results in other personality studies.

The California Psychological Inventory contains a number of scales which seemed to be particularly relevant. The 'sociability', 'social presence', 'self acceptance' and 'sense of well-being' scales measure, at their lower ends, traits which are also used to describe persons functioning at Kohlberg's level two; conventional, submissive, suggestible and overly influenced by other reactions and opinions, literal and unoriginal in thinking and judging, conservative, given to feelings of guilt, narrow in interests, cautious, constricted in thought. Similarly the low scorers on the following scales are described by traits compatible with the lower levels of moral judgement. The 'responsibility' scale influenced by personal bias, spite and dogmatism, the socialization scale (demanding, headstrong, deceitful in dealing with others), 'the self-control' scale (self-centred, over-emphasising personal pleasure and self-gain), the tolerance scale (narrow, overly judgemental in attitude) the 'good impression' scale (self-centred, too little concern for the needs and wants of others), the 'achievement via independence' scale (submissive and compliant before authority), the 'intellectual efficiency' scale (conventional

and stereotyped in thinking, lacking in self direction and self discipline), the psychological mindedness scale (overly conforming and conventional) and the 'flexibility' scale (cautious, rigid, formal and pedantic in thought, overly deferential to authority, custom and tradition). All of the above scales measure aspects of conformity of thought in the values domain or instrumental hedonistic tendencies, all of which are compatible with the lower stages of moral reasoning.

The Personal Orientation Inventory was designed to comprehensively measure the values and behaviours which were considered to be important elements of self-actualization. Some of the P.O.I. scales appear to be attempts to measure aspects of personality closely related to the ways in which people justify the moral decisions they make. This is especially true of the second major scale, the support scale which was designed "to measure whether an individual's mode of reaction is characteristically self oriented or other oriented" (Shostrom, 1966, p 5). The other major scale and the subscales of the P.O.I. have been found to have significant positive correlations with the support scale (Knapp, 1965) and so it was expected that these scales would facilitate interpretation of the expected relationship between the support scale and moral judgement scores.

As a measure of authoritarian tendencies the Californian F-Scale was the obvious choice as a negative correlation between F-Scale scores and moral judgement had previously been found. Thus inclusion of this scale permitted replication of a study, with a different population.

The Eysenck Personality Inventory was included because of the general acceptance of the importance of extraversion, introversion and neuroticism as personality dimensions, because this scale has been frequently used in research with meaningful results and because of the theoretical expectation of a relationship between anxiety and moral judgement.

The Study of Values taps dimensions which have been found to be unrelated to most of the other personality dimensions in this study and as such was considered to be a useful addition. Moreover its inclusion in a study in which other important dimensions could be statistically controlled provided an opportunity to examine the Klinger et al. (1964) findings more stringently.

The final measure included came from Hogan and Dickstein (1972b). This is a sentence completion test designed to elicit moral judgements. Although the authors have claimed that this test was based on Kohlberg's rationale no empirical evidence that the two tests measure the same dimension has been provided. The Hogan and Dickstein test can also be scored to provide an index that indicates whether individuals tend to blame institutions or individuals. Hogan and Dickstein (1972a) had found moral judgement to be related to the subjects perceived locus of injustice; the ethic of responsibility correlated positively with the tendency to blame individuals.

Thus inclusion of this test provided an opportunity to examine the relationship between the Survey of Ethical Attitudes (Hogan and Dickstein (1972b) and Kohlberg's scale, to examine the relationship between perceived locus of

injustice and Kohlberg moral judgement stage and to replicate the relationships between Survey of Ethical Attitudes scores and personality dimensions.

Not all items from the Survey of Ethical Attitudes were included as their content was no longer relevant, e.g. reference to drafting for the Vietnam War, and some items were modified so that they fitted the New Zealand situation e.g. reference to 'Blacks' and to 'graduating' from high school. The version of the test used⁴ contained thirteen items, either taken verbatim, or modified to meet local conditions, from the Survey of Ethical Attitudes.

It was estimated that completion of all the above group tests would require between three and four hours. The time available per testing session was approximately an hour and a half but an extension of this time was available as long as most of the subjects had completed within this period. The tests were arranged into three lots each expected to require approximately one hour:-

- (A) Moral Judgement Scales (Kohlberg, followed by Hogan and Dickstein).
- (B) C.P.I. and P.O.I.
- (C) Study of Values, Eysenck Personality Inventory, Californian F-scale and Mill Hill.

It was thought advisable to employ a counterbalanced design so that any results which may have been the result of order of presentation could be identified and analysed

⁴See appendix B.

appropriately. An inappropriate set could be established by prior tests, e.g. a one correct answer set established while answering the Mill Hill would be inappropriate when answering personality tests, similarly the deep probing reasoning set required to answer the Kohlberg dilemmas is not appropriate for answering the personality measures. Because the scores obtained on the Kohlberg scale were most important to this study and as subjects find this scale demanding it was decided to present it before the Survey of Ethical Attitudes in both cases.

The Piagetian tests required individual testing and so could not be fitted into the time available. These tests were administered two months after the main testing session and were administered in normal college seminar time, by trained students, as part of a laboratory session. The total experimental design is set out in diagrammatic form below:-

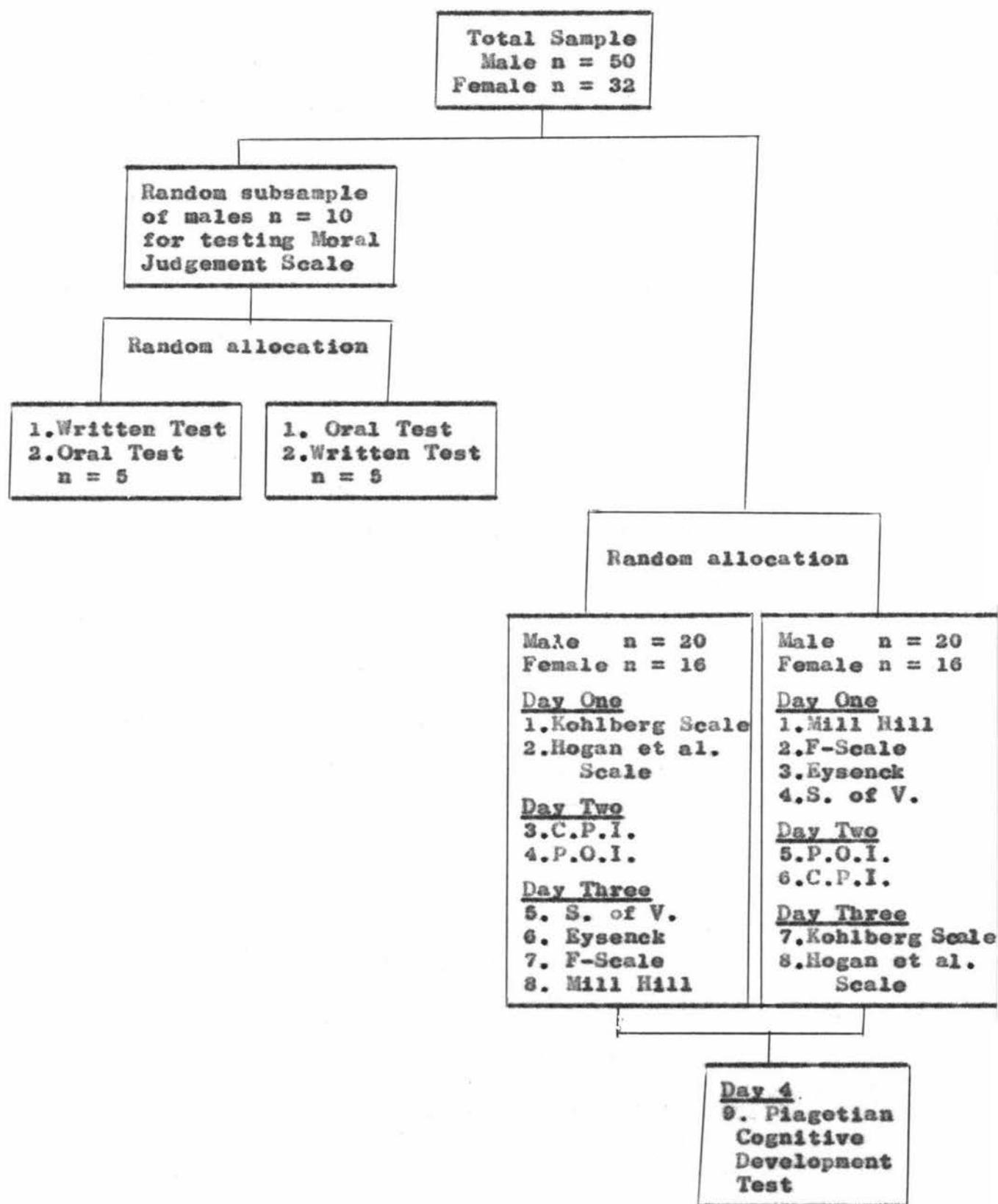


Fig. 3. Experimental Design

There was a three day separation between the 1st and 2nd testing sessions, a four-day separation between 2nd and 3rd testing sessions and approximately 2 months between the 3rd and 4th testing sessions.

The subjects were informed that the study was concerned with evaluating some of the assumptions of a psychological theory and did not involve making evaluations of them as individuals. They were told that they would be asked to complete a number of questionnaires designed to measure attitudes, opinions and judgements and were assured that the answers they gave would be confidential and in no way related to their college records. A previous experience in which approximately twelve percent of this total first year group of students refused to complete the A.C.E.R. B40 intelligence test as requested by the college administrators, emphasised the necessity to guarantee that the results of these tests could not be used against them. As assurances to this effect had not proved successful when used by others it was decided that total anonymity would be guaranteed. Thus to facilitate co-operation and to create a safe atmosphere within which the subjects would respond freely, each subject was required to identify their replies with a three digit number chosen by themselves. To enable the researcher to follow up any subjects who were absent from a testing session and to be able to give the code number to subjects who forgot this number between testing sessions, a list of codes and names had to be compiled. The subjects compiled the list which was then retained by a member of the students' union executive, thereby guaranteeing anonymity.

Further incentive to volunteer was provided by explaining that completion of some of these questionnaires would facilitate understanding of some aspects of their first year Education course and by offering to inform the participants of the results of the investigation.

The tests were administered at the college to small groups of students at a time on the testing day when they were free from college commitments. Testing sessions were supervised and each subject was permitted to go on to the next test when they were ready. No time limits were set but students were advised not to spend more than fifteen minutes on the Mill Hill test. Test instructions were presented with each test for the subjects to read themselves and before being set personality measures they were orally instructed not to spend a lot of time on any one question. Rapid follow up of the few subjects who missed a testing session ensured that no more than a week elapsed between testing sessions: correct order of presentation was maintained.

As this research involved an initial survey in a new area it was not intended that a comprehensive set of hypotheses should be formally stated. From the theoretical argument presented and from extrapolation from child data a number of hypotheses have been extracted and presented here. These are not intended as an exhaustive set of hypotheses:-

- (1) Moral maturity is positively related to Piagetian cognitive development.
- (2) Moral maturity is positively related to verbal facility.

- (3) Moral maturity is negatively related to authoritarianism.
- (4) Moral maturity is negatively related to egocentric values.
- (5) Moral maturity is positively related to aspects of self-actualization.
- (6) Moral maturity is negatively related to neuroticism.
- (7) Moral maturity is positively related to Hogan and Dickstein's measure of moral judgement.
- (8) Autonomy and empathy in interaction relate to moral maturity. Subjects high on both empathy and autonomy have the highest moral maturity scores; those high on empathy and low on autonomy have level 2 moral judgement while those high on autonomy and low on empathy have the lowest moral maturities, i.e. level 1.

CHAPTER FIVE

ANALYSIS OF RESULTSExamination of sex and order effects.

For the analysis of the data obtained it was desirable that the largest possible 'n' be used. The data had been obtained from both males and females and by two different orders of presentation of the tests and so before the data from these subsamples could be combined, the possibility of first order and interaction effects had to be examined. The number of observations in the cells of the two factor layout are given in Figure 4. The analysis was performed via 2-way

		Sex of Subjects	
		Male	Female
Order of presentation	A	20	16
	B	20	16

Fig. 4. Cell frequencies of 2 factor layout.

ANOVA for independent data with unequal but proportional cell frequencies¹. The analysis of variance model is based on a number of assumptions: (a) that of independent observations was met by the data, (b) additivity of component contributions may reasonably be expected to be met by the data, (c) that of normality of distribution was probably met by the data but as the general consensus is that F is quite insensitive to variations in population distribution no test of this was considered necessary, (d) the final assumption of equal variances among sets was probably met but was also the only

¹Computational formulae for obtaining sums of squares was obtained from Glass and Stanley, 1970, p 436.

significant assumption that may not have been met. Unfortunately there are no particularly satisfactory tests of homogeneity of variance. The evidence is that these tests are very sensitive to deviations from the normal distribution (Guilford, 1965). As the effects of breaking the homogeneous variance assumption are minimized when cell numbers are equal (Glass and Stanley, 1970) and as the cell numbers in this study are almost equal, it was decided that tests of homogeneity of variance would serve no useful purpose.

The following tables give the results of 2-way ANOVA performed on the data obtained on each scale:-

Source of Variation	df	MS	F	p ²
Sex	1	4.3341	0.1031	p > .10
Order	1	26.8889	0.6396	p > .10
A x B	1	59.6173	1.4180	p > .10
Within	68	42.0432		

Table 2. Mill Hill Vocabulary Scale.

Source of Variation	df	MS	F	p
Sex	1	3.3063	0.0109	p > .10
Order	1	642.0139	2.1245	p > .10
A x B	1	844.8673	2.7957	p > .05
Within	68	302.2013		

Table 3. Californian F-Test.

² .95 $F_{1,68} = 3.981$, interpolated from table E, Glass and Stanley, 1970.

.99 $F_{1,68} = 7.0252$. p is given at four levels, p > .10, p > .05, p < .05 and p < .01.

Scale	Source of variation	df	MS	F	p
Extraversion/ Introversion Scale	Sex	1	11.2007	0.7508	p>.10
	Order	1	11.6805	0.7829	p>.10
	A x B	1	0.9507	0.0637	p>.10
	Within	68	14.9189		
Neuroticism	Sex	1	32.1007	1.4874	p>.10
	Order	1	19.0138	0.8810	p>.10
	A x B	1	1.6674	0.0773	p>.10
	Within	68	21.5814		
Lie Score	Sex	1	0.7111	0.2659	p>.10
	Order	1	2.0000	0.2768	p>.10
	A x B	1	7.2255	2.4919	p>.10
	Within	68	2.8996		

Table 4. Eysenck Personality Inventory

Scale	Source of Variation	df	MS	F	p
Theoretical	Sex	1	828.1000	17.6598**	p < .01
	Order	1	130.6805	2.7868	p > .05
	A x B	1	54.4445	1.1611	p > .10
	Within	68	46.8919		
Economic	Sex	1	4.2250	0.0971	p > .10
	Order	1	66.1250	1.5194	p > .10
	A x B	1	240.1000	5.5169*	p < .05
	Within	68	43.5210		
Aesthetic	Sex	1	42.3674	0.6530	p > .10
	Order	1	14.2222	0.2192	p > .10
	A x B	1	2.5840	0.0398	p > .10
	Within	68	64.8814		
Social	Sex	1	317.3444	6.9931*	p < .05
	Order	1	0.1249	0.0028	p > .10
	A x B	1	87.0251	1.9177	p > .10
	Within	68	45.3798		
Political	Sex	1	115.0341	5.9189*	p < .05
	Order	1	168.0556	8.6470**	p < .01
	A x B	1	64.6006	3.3239	p > .05
	Within	68	19.4351		
Religious	Sex	1	921.6000	13.4611**	p < .01
	Order	1	39.0138	0.5698	p > .10
	A x B	1	8.7112	0.1272	p > .10
	Within	68	68.4640		

Table 5. Study of Values.

Scale	Source of Variation	df	MS	F	p
Time Competence (Tc)	Sex	1	1.6674	0.1691	p>.10
	Order	1	2.7222	0.2761	p>.10
	A x B	1	4.3340	0.4396	p>.10
	Within	68	9.8586		
Inner Support (I)	Sex	1	0.0563	0.0005	p>.10
	Order	1	76.0556	0.6162	p>.10
	A x B	1	0.2506	0.0020	p>.10
	Within	68	123.4285		
Self-Actualizing Value(SAV)	Sex	1	14.2007	0.8630	p>.10
	Order	1	0.0138	0.0008	p>.10
	A x B	68	16.4550		
Existentiality (Ex)	Sex	1	1.1674	0.0615	p>.10
	Order	1	17.9999	0.9484	p>.10
	A x B	1	6.8063	0.3586	p>.10
	Within	68	18.9800		
Feeling Reactivity (Fr)	Sex	1	2.3361	0.2269	p>.10
	Order	1	6.7222	0.6528	p>.10
	A x B	1	1.8778	0.1824	p>.10
	Within	68	10.2967		
Spontaneity (Sp)	Sex	1	1.4694	0.2085	p>.10
	Order	1	0.4999	0.0709	p>.10
	A x B	1	1.2251	0.1738	p>.10
	Within	68	7.0478		
Self-Regard (Sr)	Sex	1	7.2250	1.1621	p>.10
	Order	1	0.0000	0.0000	p>.10
	A x B	1	0.0000	0.0000	p>.10
	Within	68	6.2173		
Self-Acceptance (Sa)	Sex	1	13.2250	1.3809	p>.10
	Order	1	29.3889	3.0686	p>.05
	A x B	1	0.1361	0.0142	p>.10
	Within	68	9.5772		
Nature of Man	Sex	1	0.4694	0.0947	p>.10
	Order	1	4.5000	0.9082	p>.10
	A x B	1	2.0250	0.4087	p>.10
	Within	68	4.9551		
Synergy	Sex	1	2.1778	0.9656	p>.10
	Order	1	3.5556	1.5764	p>.10
	A x B	1	6.6694	2.9569	p>.05
	Within	68	2.2555		
Acceptance of Aggression	Sex	1	1.9507	0.1604	p>.10
	Order	1	6.7222	0.5528	p>.10
	A x B	1	2.9340	0.2413	p>.10
	Within	68	12.1594		
Capacity for Intimate Contact	Sex	1	0.0250	0.0016	p>.10
	Order	1	14.2222	0.9303	p>.10
	A x B	1	0.1778	0.0116	p>.10
	Within	68	15.2879		

Table 6. Personal Orientation Inventory³

³The TI and O scales have been omitted from statistical analysis and the Tc and I scales have been used in preference to ratio scores, as recommended by Shostrom (1966, p 7).

Scale	Source of Variation	df	MS	F	p
Dominance (Do)	Sex	1	0.0063	0.0002	p>.10
	Order	1	8.6805	0.2187	p>.10
	A x B	1	22.2507	0.5606	p>.10
	Within	68	39.6903		
Capacity for Status (Cs)	Sex	1	0.4694	0.0345	p>.10
	Order	1	1.1250	0.0827	p>.10
	A x B	1	0.2250	0.0165	p>.10
	Within	68	13.6029		
Sociability (Sy)	Sex	1	1.0563	0.0416	p>.10
	Order	1	2.7222	0.1072	p>.10
	A x B	1	7.0640	0.2789	p>.10
	Within	68	25.3991		
Social Presence (Sp)	Sex	1	77.0063	2.2604	p>.10
	Order	1	93.3888	2.7413	p>.10
	A x B	1	5.0174	0.1473	p>.10
	Within	68	34.0675		
Self-Acceptance (Sa)	Sex	1	16.9000	1.1557	p>.10
	Order	1	0.1250	0.0085	p>.10
	A x B	1	2.5000	0.1710	p>.10
	Within	68	14.6228		
Sense of Well-being (Wb)	Sex	1	52.1361	2.0754	p>.10
	Order	1	0.2222	0.0088	p>.10
	A x B	1	0.0028	0.0001	p>.10
	Within	68	25.1213		
Responsibility (Re)	Sex	1	166.7361	10.0827**	p<.01
	Order	1	0.1250	0.0076	p>.10
	A x B	1	15.6250	0.9449	p>.10
	Within	68	16.5368		
Socialization (So)	Sex	1	166.0563	4.2099*	p<.05
	Order	1	7.3472	0.1863	p>.10
	A x B	1	53.2840	1.3509	p>.10
	Within	68	39.4439		
Self Control (Sc)	Sex	1	61.6694	1.0180	p>.10
	Order	1	59.0138	0.6440	p>.10
	A x B	1	31.2112	0.5152	p>.10
	Within	68	60.5798		
Tolerance (To)	Sex	1	11.0250	0.6776	p>.10
	Order	1	4.5000	0.2766	p>.10
	A x B	1	2.0250	0.1245	p>.10
	Within	68	16.2713		
Good Impression (Gi)	Sex	1	0.5444	0.0190	p>.10
	Order	1	0.0138	0.0005	p>.10
	A x B	1	3.2112	0.1119	p>.10
	Within	68	28.6993		

Table 7. California Psychological Inventory.

(Continued p. 63)

Scale	Source of Variation	df	MS	F	p
Communality (Cm)	Sex	1	2.5000	0.4557	p>.10
	Order	1	5.0139	0.9140	p>.10
	A x B	1	2.3361	0.4259	p>.10
	Within	68	5.4857		
Achievement via Conformance (Ac)	Sex	1	0.2250	0.0088	p>.10
	Order	1	10.8888	0.4236	p>.10
	A x B	1	10.3362	0.4021	p>.10
	Within	68	25.7066		
Achievement via Independence (A1)	Sex	1	4.7841	0.3146	p>.10
	Order	1	0.3472	0.0228	p>.10
	A x B	1	0.5840	0.0384	p>.10
	Within	68	15.2050		
Intellectual Efficiency (Ie)	Sex	1	3.6000	0.1566	p>.10
	Order	1	0.1250	0.0054	p>.10
	A x B	1	34.2250	1.4891	p>.10
	Within	68	22.9842		
Psychological Mindedness (Py)	Sex	1	3.6000	0.4862	p>.10
	Order	1	0.8888	0.1200	p>.10
	A x B	1	0.0112	0.0015	p>.10
	Within	68	7.4044		
Flexibility (Fx)	Sex	1	2.6694	0.1682	p>.10
	Order	1	3.1249	0.1969	p>.10
	A x B	1	1.2251	0.0772	p>.10
	Within	68	15.8721		
Femininity (Fe)	Sex	1	497.0250	29.2146**	p<.01
	Order	1	22.2222	1.3062	p>.10
	A x B	1	65.8778	3.8722	p>.05
	Within	68	17.0129		

Table 7. (Continued from p. 62)

Scale	Source of Variance	df	MS	F	p
Ethical Attitudes Scale	Sex	1	9.5063	1.3992	p > .10
	Order	1	0.8888	0.1308	p > .10
	A x B	1	3.1174	0.4589	p > .10
	Within	68	6.7939		
Source of Blame	Sex	1	2.5000	0.4299	p > .10
	Order	1	8.0000	1.3758	p > .10
	A x B	1	12.1000	2.0809	p > .10
	Within	68	5.8149		

Table 8. Hogan and Dickstein Scales.

Source of Variation	df	MS	F	p
Sex	1	530.4694	0.2004	p > .10
Order	1	74.0138	0.0280	p > .10
A x B	1	1095.5112	0.4138	p > .10
Within	68	2647.1224		

Table 9. Kohlberg Moral Judgement.

Summary of tables:

Of the forty four variables tested, five variables were found to have F ratios which showed highly significant ($p < .01$) main effects. The C.P.I. 'femininity' and 'responsibility' scales and the Study of Values religious and theoretical scales had differences related to the sex effect and the Study of Values 'political' scale had a difference related to the order effect. Another four scales had F ratios of $p < .05$. These were the C.P.I. 'socialization' scale with a difference related to the sex effect and the Study of Values 'social' and 'political' scales, with significant sex effect and 'economic' scale with significant interaction effect.

Analysis of the Kohlberg Scale.

There are two major methods of scoring responses to the Kohlberg scale. The global scoring method involves allocating a global score to the response made to questions about a single situation. When this method is used the overall impression of the level of responding is the important factor. If the subject has responded frequently at two levels then the response for that particular situation may be allocated two levels; a major score reflecting the main response level, and a minor score indicating significant usage of another level of response. The final overall moral judgement score depends upon the modal response. To obtain this score much of the information in the protocol is ignored. Moreover the global scoring guide⁴ is far less precise than the guide used with the second method, and leaves much more to the subjective judgement of the assessor. It was thought desirable to obtain a score which was influenced by all the replies and it was felt that the scores obtained would more accurately represent Kohlberg's levels if the more detailed coding guide⁵ was used. Even with the use of the coding guide, scoring responses was not always simple and so in cases of doubt the global scoring guide was used for additional guidance. Under the coding scoring system each idea, or thought content, that can be scored is given an appropriate level score. In this way the reply to a single question may have four or five level scores and a single situation may receive ten or more scores.

⁴Kohlberg, 1958.

⁵Kohlberg, 1958.

A score for each situation was calculated by adding the products of, percentage of usage times stage used, for each stage used when answering questions regarding that situation. In this way a weighted score was obtained. The overall moral maturity⁶ score is in effect an average of the situation scores. The use of this score as a measure of moral maturity involves ignoring differences in score profiles and as it is a sort of weighted mean the range of scores tends to be less when this method is used, e.g. to obtain a global score of stage 6 may require only 25 to 50 percent of statements to be at this level but to obtain a moral maturity score equivalent to this 6, i.e. a score of 600, all statements must be rated as being stage 6. Reliability in terms of interjudge correlations have been reported as ranging from .68 to .84 (Kohlberg, 1963). Haan et al. (1968) reported interjudge reliability of .82 and McGeorge (1971) found interjudge reliability of group administered, written responses to be .85. In this research, it was not feasible to obtain an interjudge measure and so a judge rejudge correlation was calculated. All protocols were scored blind and a random subsample of 40 protocols were rescored after 2 weeks. The test booklets were divided so that all the replies to one question could be scored together thereby enhancing scoring reliability. The judge rejudge correlation of .94 was somewhat higher than the interjudge reliabilities obtained by other researchers and seems to indicate the need for a more detailed scoring guide to facilitate increased similarity

⁶The total score obtained by this procedure is referred to as 'moral maturity'.

of scoring across judges. The correlation of .94 was interpreted as indicating that the accuracy of the scoring was adequate.

The most notable feature of the moral dilemma responses was the great variability in levels of response. The moral judgement stage used varied remarkably both between situations and within the situations. Some subjects included responses as far apart as stage 1 and stage 6 when answering questions about the same situation. For example, to question 5 situation 2⁷, "Should the doctor do what she asks and give her the drug that will make her die?" one subject answered "No. He could be jailed for life" (stage 1), and to question 6, situation 2, "When a pet animal is badly wounded and will die it is killed to put it out of its pain. Does the same thing apply here?" he answered, "No. No-one has the right to take the life of another human" (stage 6).

A total of 94.9 percent of subjects gave responses which ranged from pre-conventional to post-conventional level. The least amount of stage mixture was found in a mere 5.5 percent of subjects whose responses nevertheless

Range of Responses in Stages	No. of Subjects	Percent of Subjects
1 - 6	31	43.5
2 - 6	20	27.8
3 - 6	4	5.5
1 - 5	11	15.3
2 - 5	6	8.3

Table 10. Range of stage mixture in replies to Kohlberg dilemmas.

⁷See appendix A.

ranged over 4 stages. The extensive degree of stage mixture found is not explainable in terms of Kohlberg's theory. It indicates that contrary to Kohlberg's contention, the new stages which develop are additions to existing stages and not a replacement of the previous stage. Subjects not only retained the ability to use lower stages but employed them spontaneously in moral reasoning. It is possible that individuals did not recognise that the arguments they used were at different levels but it seems more likely that the type of reply given stems, in part at least, from the fact that the dilemmas are not actual conflicts faced by the subjects personally. Wilson (1972) has suggested a number of alternative orientations that may be taken by subjects, when proffering a reason it may be proffered as:

- "(a) a good reason, or just a (possibly bad) reason;
 - (b) a reason which is 'ultimate' (stands on its own feet), or which assumes a background of higher-level reasons;
 - (c) a reason which he would use (have in mind) when acting, or which he knows of but would not use;
 - (d) a reason which would be also the cause of his behaviour and which he approves of, or a reason which would cause his behaviour and which he does not approve of (a reason or cause which, in some sense, operates against his better judgement)."
- (Wilson, 1972, p 20)

If changes in the above orientations could occur from one question to another, and there is no evidence that this can not or does not occur, changes in level of response may also occur in conjunction.

Little evidence to support Kohlberg's (1969) claim that people are consistent from situation to situation in the use of modal stage and the adjacent stages exists. Even this degree of mixture is a recognition that people tend to make spontaneous judgements at 3 of the 6 different stages and therefore at 2 of the three different levels. Any evidence of smaller ranges of stage mixture in child or young adolescent samples may simply be a reflection of the more limited range of stages of response available to these subjects.

Stage of response	Total number of responses	Percentage of total
1	70	6.1
2	156	13.5
3	211	18.3
4	270	23.4
5	272	23.6
6	173	15.0

Table 11. Distribution of Moral Judgements.

The distribution of responses given in Table 11 may be compared with the percentage of total responses made at each level by Kramer's (1968) subjects and given in Table 12.

Stage of response	Percentage of total for college age subjects	Percentage of total for young adults (approx 25 yrs)
1	9.9	6.6
2	19.1	13.7
3	27.0	27.4
4	27.2	32.0
5	12.3	15.6
6	4.4	4.8

Table 12. Distribution of Moral Judgements made by Kramer's Subjects (calculated from data given in Kramer, 1968, table 32).

The distribution of responses by the subjects engaged in this study more closely approximated the distribution of Kramer's post college age subjects. Their degree of use of pre-conventional reasoning was very similar though there seemed to be a trend to greater use of post-conventional reasoning by the subjects in this survey. The similarity to Kramer's young adult group and the fact that only one subject's moral maturity score was below 300 was taken as evidence that regression to instrumental hedonist reasoning had not occurred and so no special analysis would be required for this. Further evidence of this was that only five subjects had modal stage 2 responses; another subject had stage 2 and stage 4 tied for mode. The 7 percent of subjects with modal responses at stage 2 was considerably less than the 20 percent who were found to regress from a stage 4/5 mixture at high school to stage 2 at college age (Kramer, 1968).

The range of moral maturity scores was 259 to 500 with only one score below 300. The attrition of the range of scores which results from the method of calculation in which the score to every response is used, resulted in no scores which could definitely be interpreted as indicating mainly stage 6 reasoning. Modal measures of usage were calculated so that comparison with the results of other studies would be possible. The modal measures reported here were obtained by finding the mode of all the thought-content scores and are not strictly the same as the modes obtained by the Global scoring method. 11 percent of the subjects responded modally at stage six. This figure is somewhat higher than the 4 percent found by Haan et al. (1968), and a similar percentage

reported by Kramer (1968). A re-examination of the scores of these subjects revealed that only 5.5 percent of the total number of subjects clearly responded most frequently at stage 6; the other subjects modally at stage 6 had a considerable degree of stage mixture and would probably not have been classified as modal stage 6 by the Global scoring method.

The evidence put forward suggests that except perhaps for stage mixture, the results obtained from this sample using a written questionnaire were comparable to the results obtained by other researchers. It is possible that the question of stage mixture has been somewhat glossed over as the evidence set out in Table 1, which shows that only 15 percent of Kohlberg's (1958) subjects responded at their modal level for 50 percent or more of their responses, is not incompatible with the results presented here.

Although Kohlberg found a main moral judgement factor, a number of other researchers in the moral judgement field failed to do so. MacRae (1954) and Johnson (1962) using Piaget based tests and McGeorge (1971) using Kohlberg's interview schedule failed to find a moral judgement factor. A factor analysis of the moral maturity scores for the 16 questions answered by all 72 subjects was conducted in order to test Kohlberg's claim of a moral judgement factor and in order to obtain factor scores which could be used in correlational analysis, with the scores on the other personality dimensions measured. Principal component factor analysis with oblique rotation (Promax, including varimax) was performed on the I.B.M. 1130 computer using an expanded

form of the 1130 statistical system, factor analysis programme. Six factors with eigen values greater than one were obtained. These factors accounted cumulatively for 63.64 percent of the variance; the sixth factor accounted for 7.33 percent of the variance.

VARIABLE	1	2	3
IT1	-0.7675	0.0747	-0.1498
IT2	-0.9378	-0.1895	0.0116
IT3	-0.8031	-0.1760	0.1667
IT4	-0.5032	0.0259	-0.3106
IT5	-0.1865	-0.1193	-0.6180
IT6	-0.1005	-0.7351	0.0746
IT7	-0.2411	-0.7241	-0.1527
IT8	0.3794	-0.3032	-0.3612
IT9	-0.0039	-0.0068	-0.0477
IT10	0.0823	0.4681	-0.6105
IT11	-0.1306	0.2380	-0.2843
IT12	0.0715	-0.0997	0.2039
IT13	-0.0154	-0.0406	0.0456
IT14	-0.0888	0.1048	0.0535
IT15	-0.0112	0.0210	0.1410
IT16	-0.1906	0.2440	0.6188

VARIABLE	4	5	6
IT1	-0.0981	-0.0659	-0.1730
IT2	-0.0657	0.0250	0.0649
IT3	0.1748	0.0106	0.0113
IT4	0.0480	0.3776	0.1527
IT5	0.0502	-0.0569	-0.0693
IT6	0.1055	0.1877	0.1065
IT7	-0.0870	-0.1242	-0.0636
IT8	0.1985	0.4038	-0.2335
IT9	0.8560	0.0464	-0.0231
IT10	0.9009	0.1506	0.1357
IT11	0.4859	-0.2166	0.0022
IT12	0.7312	-0.0185	0.3542
IT13	0.0139	0.8141	-0.0866
IT14	-0.1742	0.4341	0.5426
IT15	-0.2198	0.1596	-0.7548
IT16	0.2337	0.2637	-0.4595

Table 13. Factor Analysis of the Kohlberg Scale -
Oblique Primary Factor Loadings

The first factor was loaded highly by items 2, 3 and 1 and moderately by item 4. All these items were related to a situation in which the law was broken in order to save a human life. The factor was not simply that aspect of moral judgement referred to by Kohlberg as the value for human life as items 5 and 6 had insignificant loadings. The factor was interpreted as being concerned with conflict between obedience to the law and the value of human life.

The second factor was loaded quite highly by items 6 and 7 and moderately but in the opposite direction, by item 10. Although the 2 items loaded most highly were both concerned with euthenasia, item 5, the main question about this situation had an insignificant loading. While item 6 was concerned with the relationship between the value of human life and the value of other animal life, item 7 was concerned with punishment for murder (euthenasia) under mitigating circumstances. The positive loading of item 10 on this factor indicated that at one end the factor was concerned with duty but it was not possible to describe the other end. It seemed probable that the factor was not psychologically meaningful.

Items 16, 10 and 5 had moderately high loadings on the third factor. Whereas item 16 had a positive loading, items 10 and 5 had negative loadings. Both items 10 and 5 seemed to be concerned with fulfilling one's duty as prescribed by society whereas item 16 was concerned with contract. Hence this factor was described as duty vs contractual obligation.

Factor 4 was highly loaded by items 9 and 12 and moderately loaded by item 11. Items 9 and 12 in particular seemed to be concerned with the spirit as opposed to the letter of the punishments issued by the court. Item 11, while concerned with the same situation, was probing the relationship between friendship and duty and was loaded $-.28$ on factor 3. The factor was not loaded by item 4 or 8 and so was not simply concerned with punishment despite the fact that items 9 and 12 seemed to involve expiatory justice vs punishment directed to behaviour modification. The factor has therefore been described as being concerned with the spirit of the law.

The fifth factor was loaded highly by item 13 and moderately by items 14 and 8. Items 13 and 14 were concerned with the individuals right to life and so can also be seen as a sort of property right. This factor was therefore interpreted as being concerned with property rights.

The sixth and final factor considered to be significant was loaded quite highly by item 15, moderately loaded by item 16 and moderately in the opposite direction with 14. Whereas item 14 was concerned with rights which a father has because of the position he holds items 15 and 16 were concerned more with the morality of acts, i.e. the goodness or rightness of acts irrespective of, or despite, the power or status of the actors. Thus the factor describes a dimension of power rights vs moral rights.

Summary of moral judgement factors that could be meaningfully interpreted.

Factor 1, conflict between obedience to the law
and the value of human life

Factor 3, duty vs contractual obligation

Factor 4, spirit of the law

Factor 5, property rights

Factor 6, power rights vs moral rights

Although no general moral judgement factor was found, 5 of the 6 factors were found to be psychologically meaningful in terms of moral judgement theory. They differ from the factors found by McGeorge (1971) but as his factor analysis was based on situation scores whereas this factor analysis was based on item scores, the difference was not surprising.

The other two moral reasoning scores, obtained from the Hogan and Dickstein questionnaire were found to have high judge-rejudge reliabilities (.933 for moral judgement and .930 for source of blame, in a random subsample of 30 subjects) and to have significant positive correlations with moral maturity. The moral judgement measure which Hogan and Dickstein had proposed as a more easily administered and scored alternative to Kohlberg's scale correlated only .26 ($p < .05$) with moral maturity. Hence the Hogan and Dickstein test scores accounted for only 6.8 percent of the variance of the Kohlberg moral maturity scores and on this evidence could not be accepted as an alternative test. Hogan and Dickstein have proposed a second scoring procedure by which a "source of blame" score can be obtained. This score depends upon the subjects tendency to blame individuals or to blame

institutions. They had found the tendency to blame individuals to correlate positively with their moral judgement measure. The correlation found between these two variables in this study was not significant but the correlation between source of blame and Kohlberg moral maturity was a highly significant .40 ($p < .01$). These correlations were nevertheless disappointingly low and if found to be accurate estimates across a number of populations will mean that in child samples, Piagetian cognitive development measures would provide far better predictions of moral maturity scores than would Hogan and Dickstein's test of moral judgement.

Analysis of correlates

This research was specifically designed to investigate the existence of possible correlates of moral judgement; particularly the theoretically predictable correlations with other aspects of ego development⁸.

The initial step in the analysis of the data involved a search for linear relationships, using product-moment correlations. It was recognised that some scales may have more complex relationships with moral maturity scores and so curvilinear and interaction relationships were investigated where appropriate.

Analysis of Intellectual Variables

No linear relation existed between the Mill Hill Vocabulary scores and moral maturity scores $r_{xy} = -.11^9$.

⁸Samples of tests used are included in appendix D.

⁹All correlations have been rounded to 2 decimal places.

This finding was in line with Kohlberg's contention that traditional intelligence measures, in which verbal intelligence plays a major part, are unrelated to moral maturity in subjects with above average intelligence. It is possible that the majority of adults have, by adulthood, reached an absolute level of verbal facility beyond which additional increments do nothing to enhance moral reasoning, and hence the curvilinear relationship found in child samples. The finding and this possible interpretation of it are, however, contrary to the predictions made. It was expected that all subjects would have reached Piaget's final stage of cognitive development and so differences in moral maturity would be found to be related to differences in verbal ability.

Significant sex differences on Piagetian cognitive development had been found and so the scores for males and females were correlated separately. The subjects' responses to the Piagetian task were scored on a four point scale. A score of one was given when the rule given was incorrect and when the problem could not be solved. Solving the problem, i.e. providing the mathematically correct answer, but being unable to state a general rule or to explain correctly how the answer was obtained, was scored two. A score of three was given for a rule that was correct but not sufficient to include all cases, and when the problem was solved and correctly explained. A maximum score of four was allocated to those who accomplished all the aspects required for a three but whose rule was fully generalized and so could include all possible cases. For the total sample a correlation of $r_{xy} = .24$ ($p < .05$) was obtained; the correlation for

males, $r_{xy} = .11$ was not significant whereas for females there was a significant correlation of $r_{xy} = .34$ ($p < .05$). Most of the males were able to function at the most advanced level and their mean score was 3.37 when the highest possible score was 4.0. The females' mean score was 2.62. The standard deviations for the two groups were similar, female S.D. = 1.05; male S.D. = .87, and so it seemed probable that the variation in female scores was over a more important range. This result leads to interesting speculation regarding the relationship between cognitive development and moral judgement in the wider adult population. The significant correlation found in a group well above average in I.Q.¹⁰ and who had received more education than average leads to the speculation that cognitive development may prove to correlate quite strongly with moral maturity in samples more representative of the range of adult logical reasoning abilities.

Analysis of Values

Analysis of the Study of Values scales was complicated by the complexity of the sex and order effects found. There appears to be no psychologically meaningful reason as to why some of these scales should be sensitive to test presentation order when none of the other scales were. The sex effects were expected and of course the ipsative nature of the scores makes it difficult to know on which scales there were genuine

¹⁰The mean ACER B40 I.Q. for those in the first year college group who consented to sit this test was 122.3. Range 101-139, S.D. = 7.

sex linked differences and which scores showed these effects because of genuine differences on another scale. In cases where the 2-way ANOVA showed population differences the data was not pooled for correlation. The exception to this was that the interaction effect on the economic scale was ignored as the 'n' for females would have had to be reduced to 16 in order to calculate separate correlations for each cell. Moreover in view of the fact that this interaction was the only significant one out of the 54 scales used, its existence seemed to have little meaning.

Scale	Total Sample	Male	Female	1st Order	2nd Order
Theoretical					
Economic	-.23	-.04	-.17		
Aesthetic	-.03				
Social		-.07	.31		
Political		.21	-.18	.06	-.07
Religious		.34*	.10		

Table 14. Correlations between Study of Values scales and moral maturity scores.

The only significant correlation, that between religious values and moral maturity in the males ($r_{xy} = .34, p < .05$), was in fact in the opposite direction to the relationship reported by Klinger et al. (1964). Among these men high religious value was apparently not accompanied by a dogmatically accepted code nor by a more punitive stance but was perhaps more an indication of awareness of religious/ethical problems. If this was so, the positive correlation found here was not surprising.

Analysis of Personality Measures

The linear relationships between the C.P.I. scales and moral maturity scores are presented in Table 15. As the 2-way ANOVA showed significant differences between sex groups on the responsibility, socialization, and femininity scales separate analysis was conducted for each group on these scales. None of the correlations were significant. This

Scale	Total Sample	Male	Female
Dominance	.03		
Capacity for Status	.13		
Sociability	-.09		
Social Presence	.02		
Self-Acceptance	.04		
Sense of Well-Being	-.12		
Responsibility		-.14	.23
Socialization		-.005	-.13
Self-Control	-.04		
Tolerance	.10		
Good Impression	-.04		
Communality	-.03		
Achievement via Conformance	-.14		
Achievement via Independence	.20		
Intellectual Efficiency	.05		
Psychological Mindedness	-.02		
Flexibility	.14		
Femininity		.02	.20

Table 15. Correlations between C.P.I. scales and moral maturity scores.

was surprising in view of the fact that some of these variables - the Ai, To, Ie, Py, Fx, Sp, and Cs scales should measure, at their lower ends, the stereotyped, restricted type of thinking and over conformity to authority that would result in low moral judgement scores. Evidence that authoritarian attitudes relate to low moral judgement was found by Kohlberg and correlations between scores on the above C.P.I. variables

and scores on the Californian F test obtained in this research support the contention that these scales measure aspects which are also measured by the F-test. Significant correlations between F-test scores and C.P.I. scales were: Sp $-.43$, Fx $-.40$, A1 $-.39$, Cs $-.34$, Py $-.30$, To $.24$, Ie $.24$. Some of these scales do not apparently share a great proportion of their variance with the F-test and correlations were lower than was anticipated from the descriptions of the traits they measure.

A number of the C.P.I. scales measured personality traits that were expected to have curvilinear relationships with moral maturity scores. Those scales that measure traits which would be expected to assist the development and foster the retention of conventional thinking, such as empathy, suggestibility, conventional thinking and conformity scales are probably related to moral judgement in such a way that high scores relate to level 2 judgements while low scores relate to either level 1 or level 3 judgements. However as only one of these subjects had a moral maturity score below 300 a linear relationship was expected. Hence failure to find negative relationships between the Sy and Sa scales and moral maturity scores was surprising.

Possible negative relationships with other scales - So, Sc and Gi scales - which could be expected because of features they have in common with level 1 reasoning, e.g. self-centredness, could not be examined with the sample used. The only correlation that approached significance was the correlation between achievement via independence and moral maturity of $.20$ ($p < .10$); this correlation was in the expected direction.

Correlations between moral maturity and the other main personality measure, the P.O.I., presented in Table 16, were also all non-significant. As neither sex nor order effect was significant on any of these scales all correlations were calculated with the total sample. Considering that the

Scale	r_{xy}	p
Time competence	-.01	NS
Inner support	.02	NS
Self-Actualizing Value	-.07	NS
Existentiality	.06	NS
Feeling Reactivity	-.01	NS
Spontaneity	-.05	NS
Self Regard	-.15	NS
Self Acceptance	.02	NS
Nature of Man	-.11	NS
Synergy	.01	NS
Acceptance of Aggression	.05	NS
Capacity for Intimate Contact	-.11	NS

Table 16. Correlations between P.O.I. scales and moral maturity scores.

P.O.I. was designed as a comprehensive measure of both values and behaviours purported to be important features of the self-actualized person the failure to find any correlation even approaching significance is difficult to explain. The second major scale, intended to differentiate between persons who are typically either self oriented, i.e. inner directed, or other oriented, i.e. other directed, was unrelated to Kohlberg's scale which, over the range measured in this sample, was designed to differentiate between those subjects who make moral judgements based on social expectation and those who make judgements based on self accepted moral principles. Shostrom (1966, p 17) has suggested that the extreme inner directed person, i.e. one whose support ratio

considerably exceeds 1:3 is excessively autonomous and self-supportive. It seemed probable that the extreme inner-directed person may not be directed by principles but may, through lack of concern for or sensitivity to other people, be guided by selfishness and so make moral decisions based on relativistic hedonist reasoning. Hence if any of the subjects were excessively autonomous a curvilinear relationship between the P.O.I. support scale and moral maturity scores would be expected. Inspection of the data revealed that for 8 of the 72 subjects, 4 men and 4 women, the percentage of other-directed responses was less than 25 percent. Their percentage usage of other-directed responses ranged from 23.8 percent to 19.5 percent. To investigate the possibility of a curvilinear relationship a scatter-gram was constructed. As can be seen from Figure 5, there was no evidence of such a relationship.

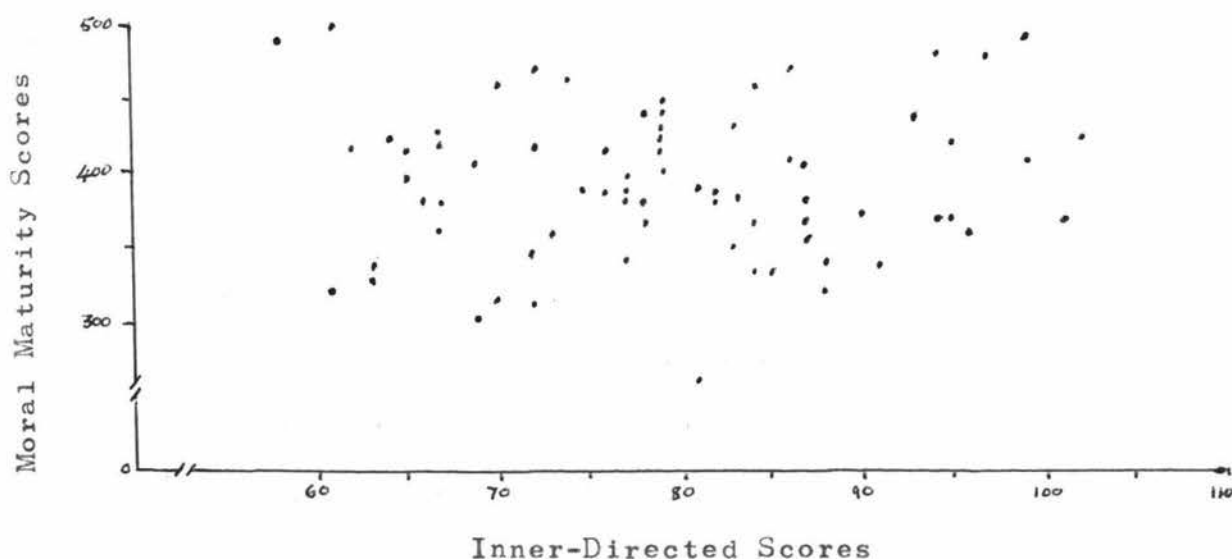


Fig. 5. Scatter diagram of the relationship between Kohlberg Moral Maturity Scores and P.O.I. Inner-Director Scores.

Despite the fact that both scales measure inner-directedness and the tendency to function at a principled level, no relationship between them was found. In fact the two scales use different methods to obtain the measures. Whereas subjects responding to the P.O.I. are asked to choose between a pair of responses describing the way they act or what they believe in, subjects responding to the Kohlberg scale make open-ended responses, i.e. their responses involve reasoning about moral dilemmas in which they spontaneously use different levels of reasoning. Thus to be classified at the principled level on the P.O.I. a subject has to respond to a pair of statements, e.g. question 20 (a) "My moral values are dictated by society; (b) My moral values are self-determined", by choosing statement (b). To be classified at this level on the Kohlberg scale the subject has to spontaneously display principled reasoning while solving a moral dilemma.

Correlations with the three Eysenck Personality Inventory scales are given in Table 17 and once again no significant correlations were found. The non-significant correlation with extraversion was not surprising as no direction of relationship could be predicted from the theory.

Scale	r_{xy}	P
Extra/Introversion	-.02	NS
Neuroticism	-.03	NS
Lie	-.15	NS

Table 17. Correlations between E.P.I. scales and moral maturity scores.

The non-significant correlation with the lie scale may indicate, as was the intention of the scale constructors, that there was no relationship between moral maturity and attempts by subjects to give answers that put them in a favourable light. However Lingoos (1965) suggested that sophisticated subjects can recognise the deception attempted with these questions and suggested that it was probably more useful as a personality measure. A number of significant correlations between the lie scale and C.P.I. scales were found (W.B. .30, So .36, Sc .49, Gi .54, Ac .37, and Ie .26). The scales on which the highest correlations were found measure aspects of personality which were not predicted to relate to moral maturity unless a substantial number of subjects functioned at Kohlberg's first level. The non-significant correlation was compatible with both possible interpretations of the scale.

On the other hand, the non-significant correlation with neuroticism was contrary to prediction. It must be interpreted as showing that subjects with a high level of anxiety were no more likely to make moral judgements based on the approval of others or the maintenance of social order than were subjects with low anxiety. The finding was compatible with the non-significant relation between moral maturity and the C.P.I. Wb scale, which measures a similar aspect of personality and in this sample was correlated $-.59$ with neuroticism.

The final measure of personality to be compared with moral maturity scores was the California F-test. The significant correlation of $-.30$ ($p < .05$) was in the theor-

etically predicted direction. Although lower than the $-.52$ correlation between these two variables reported by Kohlberg, it provides additional support to the claim that these variables are inversely related.

Although non-significant correlations were found for all but one personality variable when data from the total sample was used, it was thought that differences between extreme scorers on the Kohlberg scale may be found to be significant. By the removal of statistical "noise" related to the responses of those with moral maturity scores in the middle of the range significant personality differences may have been found. A number of t-test comparisons were made between scores on some of the personality scales thought to be most closely related theoretically, to moral judgement, using the data from subjects who scored in the first and fourth quartiles of the moral maturity scores. Once again however no relationships even approaching significance were found.

Test	Scale	1st Q.Mean	2nd Q.Mean	t	p
C.P.I.	Sy	22.83	23.61	-.41	$p > .5$
	Fx	13.89	12.39	1.04	$p > .3$
	Py	10.16	10.61	-.46	$p > .5$
	Ie	36.61	36.11	.32	$p > .5$
	A1	19.27	17.89	1.03	$p > .3$
	Sc	22.61	25.05	-.92	$p > .3$
	Re	25.50	25.83	-.22	$p > .5$
P.O.I.	Tc	17.44	16.22	1.07	$p > .2$
	I	79.56	77.94	.44	$p > .5$

Table 18. t-test comparisons between subjects from the first and fourth quartiles in moral maturity scores, on some personality scales.

A reanalysis using factor scores:

The factor analysis of the Kohlberg scale resulted in the extraction of six factors of statistical significance, of which five factors could be meaningfully interpreted as relating to aspects of moral judgement. As no single moral judgement factor had been found, it was thought that the failure to find more meaningful correlations between moral maturity and the personality scales may have been due to the fact that the moral maturity score was itself factorially complex. Correlations between factor scores for the six factors and all the other personality dimensions measured in this study were calculated and are presented in Tables 19 to 23. The total 72 subjects' scores were used in all cases¹¹. The critical values for r_{xy} are $p < .05 = .232$, $p < .01 = .302$, and have been marked with asterisks.

Test	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Mill Hill	-.10	-.10	-.06	.07	.11	-.09
Piagetian	-.15	.00	-.13	.09	.05	-.12

Table 19. Correlations between Kohlberg scale factor scores and intelligence measures.

Scale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Th	-.07	.04	.10	-.10	-.11	-.11
Ec	.18	.09	.05	-.24*	.04	.20
Aes	.03	.05	.01	-.01	-.16	-.08
Soc	-.06	-.04	.04	.07	.08	.02
Pol	-.06	.02	.08	.04	.01	.13
Rel	-.01	-.13	-.22	.18	.14	-.06

Table 20. Correlations between Kohlberg scale factor scores and Study of Values scales.

¹¹Correlations calculated with all 72 Ss have been used in the tables to maintain clarity. For those variables with significant order or sex effects, correlations were also calculated for the appropriate subgroups. Where these correlations differed in significance from the correlation given in the table, this information has been included in the text.

Scale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Do	-.02	-.09	-.13	-.03	.11	.00
Cs	.01	.10	-.11	.07	.02	-.07
Sy	-.03	.05	-.11	-.05	.12	.02
Sp	-.15	.05	-.05	.02	.02	.01
Sa	-.15	-.08	-.17	.02	.11	.11
Wb	.29*	-.18	.17	.10	-.28*	-.12
Re	.16	-.32**	-.15	.04	.01	-.19
So	.22	-.15	.01	-.10	-.05	-.11
Sc	.25*	-.11	.02	.04	-.14	-.21
To	.07	-.03	.10	.20	.04	-.17
Gi	.16	-.06	-.06	.04	-.12	-.13
Cm	.09	-.03	.10	.08	.11	-.07
Ach via C	.23* ¹²	-.11	-.02	.00	-.01	-.11
Ach via I	-.23 ¹²	.09	.06	.20	.07	-.06
Io	.06	-.12	-.05	.11	.05	-.22
Py	.07	-.02	.07	-.03	.01	-.24*
Fx	-.19	-.03	-.13	.12	.04	.05
Fe	.02	-.11	.05	-.12	.09	-.09

Table 21. Correlations between Kohlberg scale factor scores and C.P.I. scales.

Scale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Tc	.03	-.03	.11	-.05	.26*	.08
I	-.06	-.09	-.09	-.10	.17	-.01
SAV	-.01	.07	-.02	-.07	.02	.20
Ex	-.06	.00	-.07	.09	.12	.07
Fr	-.13	.03	-.11	-.11	.17	.15
S	.06	-.09	-.18	-.03	.04	.17
Sr	.07	.09	.03	-.16	.11	.24*
Sa	-.01	-.11	.00	-.11	.21	-.06
Nc	.04	.11	.00	-.12	-.05	.20
Sy	.03	-.10	-.09	-.03	.13	-.11
A	-.05	-.03	-.05	-.16	.23*	.05
C	.06	.11	-.05	-.16	.11	.19

Table 22. Correlations between Kohlberg scale factor scores and P.O.I. scales.

Test	Scale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
E.P.I.	Ex	-.17	-.04	-.02	-.18	.20	.20
	Neu	-.15	.19	.02	-.01	.09	.04
	Lie	.12	-.15	.04	-.04	-.13	.00
California F-Test		.33**	-.07	-.08	-.19	-.10	.15

Table 23. Correlations between Kohlberg scale factor scores and E.P.I. scales and F-test scores.

¹²Rounded from .227 $p > .05$.

While eleven significant correlations were found between Kohlberg scale factor scores and personality measures compared with one significant correlation when moral maturity scores were used it must be remembered that six times as many correlations were calculated. In fact only 4.0 percent of correlations reached as high as the .05 level of significance and only 0.8 percent reached the .01 level.

Four of the eleven significant correlations were with factor one. These were positive correlations with the F-test and the C.P.I. Wb, Sc and Ac scales. The highly significant ($p < .01$) correlation between authoritarian personality and factor 1 (conflict between obedience to the law and the value for human life) was in the expected direction as a high score on this factor reflected low moral maturity scores on the items by which it is highly loaded. It did not seem reasonable to explain the relationship with the Wb scale as a relationship with anxiety, especially as the Eysenck Neuroticism scale correlated $-.15$ with factor one. The Sc and Ac scales seemed to be more relevant to personality traits that may be related to differences between level 1 and level 2 moral judgements. There is however a common element to all three Wb, Sc and Ac scales; high scorers on these scales are described as being active, conscientious and industrious, i.e. they have a common attitude towards work. These are conventional, middle class attitudes to work, thus the significant but low positive correlations with factor one may indicate a tendency for people with conventional attitudes to make judgements at the conventional level. Low Ac scores have been claimed to identify persons who are insecure and easily disorganised under stress or pressures to conform. Thus the stress brought

about by a judgement requiring negation of a positive value for life in order to conform to the law or vice versa would be expected to result in disorganization of reasoning and hence in lower level judgements. But perhaps the hypothetical dilemmas could not cause sufficient stress for this relationship to appear. 2-way ANOVA had shown a significant sex effect on the Sc scale. When correlations were calculated separately for each group, none of the correlations between Sc and the factor scores were significant.

The second moral judgement factor correlated $-.32$ ($p < .01$) with the C.P.I. Re scale, and the factor itself had two quite high negative loadings with moral dilemma items. Because a significant sex effect on this variable was shown by 2-way ANOVA separate correlations for males and females were calculated. While the correlation for males was non-significant the correlation for females was highly significant ($-.42$, $p < .01$). Women with low factor scores, i.e. women who tended to make higher level judgements on this aspect of moral judgement, tended to have high Re scores, i.e. to be conscientious, dependable and alert to ethical issues. This finding helped to give a possible meaning to this second factor which could not be identified earlier. It may be that the ethical issues involved in items 6 and 7 of the moral judgement scale were obscured by other issues. On item 6 concern for animal welfare may have obscured the ethical issue and on item 7 the complexity of the ethical issues may have resulted in some subjects ignoring many of them. On the other hand, item 10 on which the factor was moderately loaded positively was phrased in a way which directed the subject's

attention to the issue of a citizen's duty and so perhaps directed attention more clearly to the ethical issue. Perhaps then, the second factor should be described as being concerned with perceptiveness to moral issues.

No significant correlations were found between factor 3 (duty vs contractual obligation) and any other scale.

The negative correlation ($-.24, p < .05$) between factor four (spirit of the law) and the economic scale of the Study of Values was interpreted as indicating that there was a slight tendency for those with lower economic values to reason at a more advanced level than those with higher economic values when the dilemmas involved conflict between the spirit and letter of the law. However this isolated finding only just reached significance and added little to the understanding of the relationships between values and moral judgement.

Factor scores on the fifth factor (property rights) correlated positively with P.O.I. Tc and A scales and negatively with C.P.I. Wb. The positive correlations with Tc and A indicate that high factor scores related to acceptance of negative aspects of the self (aggression and anger) in a way that did not affect time competence. The negative correlation with Wb indicates that subjects with high factor scores tended to be more concerned with, or more willing to admit, their own inadequacies; high level judgements of property rights dilemmas tended to be made by those able to accept negative aspects of their self concept.

The sixth factor (power rights vs moral rights) correlated positively with the P.O.I. Sr scale ($r_{xy} = .24, p < .05$). The correlation with the Sr scale points to a

relationship between a high sense of self worth because of one's strength as a person and the ability to make high level judgements when the issue involves a conflict between status and contract rights; it may be due to the ability of these people to avoid being over-awed by the status of others. The definition of the factor was not very clear, the correlation only just significant and the above suggested relationship tentative and to be treated with caution.

There were in fact no very strong relationships between the moral judgement factor scores and the scores on the other scales but the relationships found were compatible with theoretical expectations.

Factor analysis of all scales.

To obtain a clearer, more simplified view of the major dimensions that had been measured, a factor analysis of the scales used was performed. The Study of Values scales were omitted because of the ipsative nature of the scores. Scores from the total 72 subjects were used and the dichotomous variables of sex and order of test presentation were added. Although point-biserial correlations should normally be used when calculating correlations between dichotomous variables and continuous, normally distributed variables, in this case all correlations were product-moment correlations. This was in line with Fruchter's (1954, p 201) recommendation that only one type of correlation be employed in a factor analysis.

Ten factors with eigen values greater than one were obtained. Of these, the first factor accounted for 20.4 percent of the variance and the first five factors accounted

cumulatively for 54.7 percent. The other five factors, accounting for another 18.1 percent, each accounted for less than 5 percent of the variance. In some studies these factors would not have been included but as there was no obvious break in eigen values except between factors two and three, and as at least one of these factors was of particular interest, an analysis of the ten factors was conducted¹³. All the input scales had quite high communalities, the order effect (.53) being the lowest. Inspection of the orthogonal factors revealed the presence of factors which it would be expected would be psychologically related and so oblique rotation was considered to be justified.

The first factor (oblique factor loadings, table 24) was clearly a P.O.I. test factor, i.e. a self-actualization factor. The second factor with high positive loading on the neuroticism scale and high negative loading on the C.P.I. Wb scale and loadings on a number of other scales that tap anxiety and flexibility was clearly an anxiety vs sense of well being factor. The third factor had a loading which appeared in the computer print out as marginally greater than one. It was recognised that this is not mathematically possible, however inspection of the orthogonal matrix showed a high loading which was less than one. The loading greater than one resulted from the oblique rotation and has been interpreted as error caused by the oblique rotation procedure and should be treated as a loading of approximately one¹⁴. The high negative loading on C.P.I. Cm and moderate loading on So and the moderately high positive loadings on Fx and Py

¹³The expanded form of the 1130 programme was again used.

¹⁴Unfortunately no other factor analysis programme with oblique rotation was held at Massey University.

OBLIQUE PRIMARY FACTOR LOADINGS

VARIABLE	1	2	3	4	5	6	7	8	9	10
MH	0.2284	-0.0479	-0.0687	0.1440	0.0000	-0.2446	-0.3202	-0.0308	0.9790	-0.1938
EEX	0.2447	0.3299	0.2688	-0.1071	0.5323	-0.2411	-0.0893	0.0470	-0.2622	0.1723
ENE	0.0683	0.7568	-0.1610	-0.2215	-0.2312	0.2030	0.1184	-0.0613	0.2441	0.0724
ELI	0.1092	-0.4569	0.0608	-0.0294	0.0010	-0.1166	0.1528	-0.0398	0.1108	-0.7585
CFT	-0.1224	0.0939	-0.2311	-0.0174	-0.0498	-0.5970	-0.0236	0.3575	0.3891	-0.0618
TC	0.7655	-0.5640	-0.1129	0.0305	-0.2373	-0.1863	-0.1022	-0.0844	0.0710	0.0536
I	0.7133	0.0949	0.0070	-0.1552	-0.0521	0.2035	0.3045	-0.0172	-0.0269	-0.0716
SAV	0.4359	0.0947	-0.0410	0.1483	0.0663	-0.0879	0.6027	0.0368	-0.0582	-0.1014
EX	0.7232	-0.0807	0.0372	0.0431	-0.1766	0.1490	0.2306	-0.0277	0.0522	0.1555
FR	0.8416	0.2242	-0.1084	-0.0317	0.0722	0.0208	0.0409	-0.0179	0.2052	-0.2284
S	0.8104	-0.0465	0.0593	-0.0290	0.1125	-0.2485	0.0376	-0.0636	-0.0774	-0.2337
SR	0.4525	-0.0916	-0.1012	0.2410	0.2388	-0.1186	0.2544	0.0847	-0.0738	-0.0638
SA	0.2930	-0.0945	0.2607	-0.2291	0.1889	-0.0382	-0.1612	0.1270	0.1608	0.2077
NC	0.1237	-0.0039	0.0233	-0.0192	-0.1989	0.3181	0.8366	0.1252	-0.3750	-0.0246
SY	0.1984	-0.0060	0.0280	-0.2873	-0.1052	-0.0558	0.8636	-0.0284	-0.0656	0.1668
A	0.3995	0.3052	-0.1489	-0.1152	0.2841	-0.0541	0.1913	0.1109	0.3765	0.0454
C	0.9218	-0.0952	-0.0981	-0.0254	-0.1265	0.0792	0.0346	0.1117	0.1261	-0.0333
DO	-0.2202	0.0016	-0.0070	-0.1395	1.0666	-0.0474	-0.1302	-0.0808	-0.0805	-0.0344
CS	0.1143	-0.2439	0.1660	-0.0748	0.4120	0.0759	0.1638	-0.0000	-0.0166	0.1302
SY2	0.0200	-0.1272	-0.0657	-0.0286	0.7545	0.0906	0.0094	0.0647	0.1455	0.1249
SP	0.3069	-0.2465	-0.0028	0.2967	0.4387	0.3246	-0.0817	0.0384	-0.0306	0.1029
SA2	-0.0041	0.1139	-0.1276	0.0142	0.9492	0.1135	-0.1126	-0.1881	0.0702	-0.0701
WB	0.1379	-0.9152	-0.2206	0.2718	-0.0767	0.0234	-0.0509	0.1719	-0.0222	0.0016
RE	-0.2795	-0.4402	-0.0939	-0.5964	0.0685	-0.2025	0.2563	-0.0016	0.0807	0.1781
SO	0.0649	-0.6462	-0.4708	-0.3608	0.0482	0.0709	-0.2188	0.0080	-0.1642	-0.2041
SC	-0.0744	-0.8240	0.0076	-0.1571	-0.2812	-0.1524	0.0284	0.0203	0.0061	-0.2942
TO	0.1003	-0.8148	0.0667	-0.0356	-0.1723	0.0090	0.0283	0.0158	0.1079	0.1565
GI	-0.0845	-0.6385	0.3783	-0.0899	0.0835	-0.0572	0.2993	0.0189	-0.0233	-0.4580
CM	0.2629	-0.1511	-1.0137	-0.0599	-0.0045	0.2476	-0.0486	-0.0566	0.0916	0.2139
AC	-0.1982	-0.7375	-0.3801	-0.0792	0.3297	0.1939	-0.0187	0.0220	-0.0352	-0.1461
AI	0.0051	-0.4906	0.1966	0.0390	-0.0501	0.1535	-0.0984	-0.2660	0.2444	0.0904
IE	0.1257	-0.7295	0.0378	-0.0594	0.1759	0.0934	-0.0022	-0.0514	0.0816	-0.0722
PY	-0.0667	-0.5379	0.5647	0.0487	-0.0444	0.0279	-0.0254	0.2524	0.0751	0.0547
FX	0.3372	0.0750	0.6401	-0.0530	-0.1685	0.0745	-0.0663	-0.2582	-0.0204	-0.0634
FE	0.0964	0.0169	-0.1742	-0.8799	0.0441	0.1459	0.0774	-0.1444	-0.0480	-0.2253
HDM	-0.2180	-0.1121	-0.1879	0.1979	0.0612	-0.0751	0.4070	-0.0705	-0.1643	0.7569
HDSB	0.1569	-0.0657	-0.2188	-0.1274	-0.1664	-0.5968	-0.1897	-0.0461	-0.2463	0.4275
KMM	-0.0308	0.1977	0.0123	-0.1257	0.1736	-0.0008	-0.1006	-0.9037	0.0281	0.0043
SEX	0.0797	0.0941	0.1200	-0.8867	0.1007	-0.0865	0.0974	0.0205	-0.1709	-0.0124
ORD	0.0640	0.0401	-0.3934	-0.0533	0.0004	0.7484	0.0711	0.1094	-0.1987	0.1541
INT	-0.1504	-0.0697	-0.1812	0.2274	0.0983	-0.3558	0.2376	-0.4473	0.1635	0.1085

Table 24. Oblique Primary Factor Loadings of the factor analysis of all data excluding
Study of Values Scales.

identify this factor as measuring a modal response set vs a flexible, rebellious response set. This factor which represented an orientation toward the norm had a very low loading (.01) with moral maturity. The fourth factor was loaded highly by C.P.I. Fe and sex and was a sex factor. The fifth factor was very highly loaded with C.P.I. Do and Sa scales had moderately high loading with Sy and moderate loading with Eysenck's Extraversion scale. This factor was a dominance factor concerned with self-confidence, independence, persistence, aggressiveness and competitiveness. The sixth factor was an order factor. The seventh factor was highly loaded by both the Nc and Sy scales of the P.O.I., scales which were paired for interpretation by Shostrom (1966) and moderately loaded on the SAV scale. It is probably best interpreted as a synergy factor in which high factor scores describe people who are able to be synergic in understanding man and the opposites of life. The eighth factor was of particular interest as with loadings of $-.90$ with moral maturity, $-.45$ with intellectual development and $.36$ with authoritarianism this factor was a Kohlberg moral judgement factor. That the Kohlberg scale should clearly emerge from this data as a factor is further evidence of the apparent independence of moral judgement from all non-cognitive aspects of ego development. Of the remaining two factors the ninth on which the Mill Hill Vocabulary Scale is loaded $.98$ is clearly a vocabulary or verbal facility factor. The tenth factor, with moderately high negative loadings on Eysenck's Lie scale and moderately high positive loading on Hogan and Dickstein's moral judgement test was difficult to identify but may have been concerned with attempts to create a good impression.

This factor analysis showed that a number of dimensions which it had been predicted would be related to moral judgement in fact emerged clearly as separate factors as did the Kohlberg moral maturity dimension itself. Self-actualization, anxiety, independence, the ability to synergize opposites and verbal facility, all aspects of ego development which could reasonably have been expected to be related to moral judgement, appeared as factors separate from moral maturity scores and practically orthogonally related to the Kohlberg scale factor. The highest correlation between the Kohlberg scale factor and the other oblique primary factors was only .16.

A reanalysis was performed in which all scales, excluding the Study of Values scales, were included but in which the Kohlberg scale factor scores were employed as input instead of the moral maturity score. Principal components factor analysis with oblique rotation extracted 12 factors, cumulatively accounting for 73.39 percent of the variance, with eigen values greater than one. The lowest communality was again the order of presentation variable (.53). Surprisingly enough the Kohlberg scale factor which seemed to have the least meaning in terms of moral judgement, factor 2, had the highest communality of all the Kohlberg scale factors (.81).

This analysis was undertaken in order to obtain an indication of the place of the Kohlberg scale factors within the overall description of persons given by the other tests. Therefore only the relationships between the factors obtained in this analysis and Kohlberg scale factors are detailed here. The seventh factor extracted was quite highly negatively

loaded (-.74) by the first Kohlberg scale factor, had a moderate negative loading by authoritarianism (-.52) and was highly loaded (.85) by Kohlberg scale factor 4. That two Kohlberg scale factors should define opposite ends of a dimension is not surprising as a high factor score on Kohlberg scale factor 1 equates with low moral maturity scores on the relevant Kohlberg scale items whereas the reverse is true for Kohlberg scale factor 4. Both of these factors were described as being concerned with the law; factor 1 with the tension between obedience to the law and the value of life, factor 4 with the spirit of the law vs the letter of the law. Therefore this seventh factor describes a dimension these two have in common, a conflict between acceptance of the law as it stands and the other moral values that have also been accepted.

Factor 8 was also loaded most highly by Kohlberg scale factors. A high negative loading (-.92) by Kohlberg scale factor 2 and moderate loading (-.42) by factor 3 and low positive loadings by P.O.I. spontaneity (.31) and C.P.I. responsibility (.31). The appearance of a factor highly loaded by Kohlberg scale factor 2 again posed problems for interpretation. Perhaps, as was suggested earlier, this factor and by implication factor 8 were dimensions involving sensitivity to ethical issues.

None of the other factors extracted by this factor analysis were highly or even moderately loaded by Kohlberg scale factors. This factor analysis indicated the probable importance in moral judgement of conflicts between the law and other accepted values. It also provided further evidence

that Kohlberg scale factor 2 may describe an important aspect of moral judgement and should not be dismissed as being simply an artefact of the data base or another aspect of statistical or methodological procedure.

Analysis of homogeneous respondents.

When analysing the Kohlberg scale the heterogeneity of stage responses was noted. It was considered that although analysis of the total sample had resulted in mainly negative findings, if the responses of subjects who most closely met the level of homogeneity of judgements claimed by Kohlberg were separately analysed, significant correlations between moral maturity and other ego measures may be found. The criterion set for selecting a homogeneous sample was that only 25 percent or less, of responses be outside the modal response stage and the adjacent stages. This criterion was interpreted liberally so that when two or more stages tied for mode the centre stage used was the one which included the largest number of responses within the set range. The scores used to select subjects were the raw coding scores for each statement scored. Only 14 subjects met this criterion and of these 10 were women. The correlations between moral maturity and all variables have been given in Table 25. A major problem with using such a small 'n' was the loss of power of the test for finding anticipated relationships. The only significant correlation found was the very high $-.80$ with the California F-test. Some researchers may have considered that the use of a criterion that reduced sample size to 14 was too stringent and that a larger subsample should have been selected. Therefore the homo-

TEST	SCALE	r_{xy}	p(df=12)	r_{xy}	p(df=32)
Mill Hill Vocabulary Test		.31	NS	.19	NS
Piagetian Intellectual Development		-.02	NS	.13	NS
Study of Values	Th	.08	NS	-.21	NS
	Ec	-.48	NS	-.12	NS
	Aes	-.22	NS	-.25	NS
	Sec	.20	NS	.17	NS
	Pol	.18	NS	.17	NS
	Rel	.32	NS	.26	NS
C.P.I.	Do	.03	NS	.02	NS
	Cs	.14	NS	-.13	NS
	Sy	.13	NS	.06	NS
	Sp	.31	NS	.12	NS
	Sa	-.13	NS	.02	NS
	Wb	-.26	NS	-.18	NS
	Re	.30	NS	.20	NS
	So	-.38	NS	.18	NS
	Sc	-.15	NS	-.01	NS
	To	.11	NS	.12	NS
	Gi	-.18	NS	-.05	NS
	Cu	-.12	NS	.10	NS
	Ac	-.26	NS	.08	NS
	Ai	.34	NS	.22	NS
	Ic	-.02	NS	.13	NS
	Py	.35	NS	.07	NS
	Fx	.30	NS	.03	NS
	Fe	.28	NS	.09	NS
P.O.I.	Tc	-.01	NS	.10	NS
	I	-.19	NS	.03	NS
	SAV	-.38	NS	-.25	NS
	Ex	-.04	NS	.04	NS
	Fr	-.15	NS	.00	NS
	S	-.48	NS	-.22	NS
	Sr	-.36	NS	-.24	NS
	Sa	.17	NS	.04	NS
	Nc	-.24	NS	-.11	NS
	Sy	-.06	NS	.04	NS
	A	.18	NS	.02	NS
	C	-.06	NS	-.06	NS
E.P.I.	Ex	.26	NS	-.06	NS
	Neu	.13	NS	.00	NS
	Lie	-.23	NS	-.13	NS
Californian F-test		-.80	p < .01	-.37	p < .05

Table 25. Correlations between moral maturity scores of the most homogeneous 14 and most homogeneous 34 moral stage subjects and all other variables.

generality criterion was broadened to include all subjects with no more than one third of their responses outside the stage range of modal stage plus adjacent stages. Correlations were then calculated for the 34 subjects who met this criterion. Although the sample 'n' was now more satisfactory the homogeneity requirement seemed very broad. The correlations included in table 25 show that once again only the authoritarian scale was related to moral maturity. None of the other correlations even reached as high as $p < .10$.

From these two additional analyses it was concluded that even those subjects who more closely represented Kohlberg's ideal types could not be defined as personality types as their Kohlberg moral maturity scores were unrelated to all aspects of ego development except one. The relationship with the F-test is probably one of limits, i.e. high deference to authority would prevent the development of level 3 moral judgement but similarly the development of this type of reasoning would result in an undermining of authoritarian views.

Analysis of an interaction.

The reasons for expecting a relationship between autonomy and empathy were expounded in Chapter 3. The C.P.I. Py scale was used as an index of empathy and Sa scale as an index of autonomy. Each subject was placed in one cell of the analysis design (Figure 6) depending on whether his score was above or below the mean. In this way all subjects were included in the analysis. Sums of squares were calculated using the formulae for ANOVA with unequal and disproportional

		Empathy			
		Hi	Py	Lo	Py
Autonomy	Hi	Sa	n = 23		n = 17
	Lo	Sa	n = 14		n = 18

Fig. 6. Division of subjects for 2-way ANOVA of empathy and autonomy effects on moral maturity.

'n'¹⁵. A major problem with this analysis was that insufficient individuals scored at level 1 moral judgement for the cell containing subjects in the high autonomy, low empathy group to respond mainly at this level but it seemed probable that they would nevertheless have responded more frequently at this level than the other subjects and so would have the low moral maturity scores. It was acknowledged that there was no strong theoretical ground for predicting the effect of the combination of both low empathy and low autonomy and so it was probable that the moral maturity scores of this group would have been more variable. Therefore before calculating ANOVA it was decided to test homogeneity of variance. Levene's¹⁶ test revealed that the variances of the populations were not significantly different ($F_{3,68} = 1.11, p > .05$). Results of the 2-way ANOVA given in Table 26 show that neither the main effects nor the interaction effect were significant. This finding has been interpreted as providing further evidence of the lack of linear relationship between either of these variables and moral maturity. In addition it has shown that the more complex relationship between autonomy, empathy and

¹⁵See Glass and Stanley, 1970, p 442.

¹⁶See Glass and Stanley, 1970, p 375.

SS	MS	F	P
SS _A = 56.288	MS _A = 56.288	F _A = .38	N.S.
SS _B = 205.449	MS _B = 205.449	F _B = 1.38	N.S.
SS _{AB} = 4.163	MS _{AB} = 4.163	F _{AB} = .03	N.S.
SS _W = 177354.677			
C = .057	MS _W = 148.665		

Table 26. Results of 2-way ANOVA performed on moral maturity scores of populations with different combinations of autonomy and empathy.

moral maturity that was hypothesised did not exist in the population of subjects tested.

Although correlations between moral maturity scores and other personality measures and between moral judgement factor scores and these measures were largely non-significant, there remained the possibility that some linear combination of moral judgement item scores correlated with a linear combination of the other dimensions. The statistical method for investigating this possibility is canonical correlation. This method is superior to the correlation of factors determined by factor analysis of the two sets of data as in canonical correlation the two sets of coefficients are chosen so as to maximise the correlation between the two linear combinations. After the first pair of linear functions (i.e. those that maximally correlate) have been found, similar additional pairs may be found but each new pair must be orthogonal to those linear functions already located. "... not only is Z_2 uncorrelated with Z_1 and W_2 with W_1 , but Z_2 is also uncorrelated with W_1 , and W_2 with Z_1 " (Tatsuoka, 1971, p 186).

It was recognized that although this statistical procedure may reveal significant relationships, the interpretation of the linear combinations located could prove difficult. "... the dimensions of one domain (such as personality) that are strongly associated with another domain (such as academic achievement) are not necessarily susceptible to 'meaningful' verbal descriptions within the framework of our intuitive everyday concepts (Tatsuoka, 1971, p 191).

The left hand variables included all the personality, values and intellectual scales used plus sex and order of test presentation; the right hand variables were the 16 moral judgement items. Fifteen significant canonical correlations were found (Table 27) and the normalized weights for the first 6 canonical correlations calculated (Table 28).

Inspection of the left hand variable normalized weights showed that the Californian F-test, the Study of Values scales and the 'innerdirected' scale of the P.O.I. contributed most strongly to the linear combinations. The left hand linear combinations of the first canonical correlation had high negative weights on the theoretical, religious, aesthetic and social scales of the Study of Values and with the Californian F-test, and a positive weight for the P.O.I. 'innerdirected' scale. This combination of variables could not be meaningfully interpreted with the concepts currently available. This was also true of the other left hand combinations located. Similarly the right hand linear combination for the first canonical correlation with high positive weights for items 1, 6, 12 and 16 and negative weights on

Table 27. Canonical Correlations.

NUMBER OF EIGENVALUES REMOVED	LARGEST EIGENVALUE REMAINING	CORRESPONDING CANONICAL CORRELATION	LAMBDA	CHI-SQUARE	DEGREES OF FREEDOM
0	0.94981	0.97458	0.00000	858.60782	736
1	0.90753	0.95265	0.00000	737.43088	675
2	0.87928	0.93770	0.00000	641.00404	616
3	0.87007	0.93277	0.00000	555.37526	559
4	0.83268	0.91251	0.00001	472.72513	504
5	0.80918	0.89955	0.00005	400.31671	451
6	0.78996	0.88880	0.00027	333.23100	400
7	0.74737	0.86450	0.00127	270.03187	351
8	0.65680	0.81043	0.00503	214.31102	304
9	0.63286	0.79552	0.01467	170.99824	259
10	0.56882	0.75420	0.03995	130.41708	216
11	0.46015	0.67835	0.09265	96.34719	175
12	0.41112	0.64118	0.17162	71.38022	136
13	0.37087	0.60899	0.29143	49.93440	99
14	0.35398	0.59496	0.46323	31.16601	64
15	0.28295	0.53193	0.71705	13.47066	31

Names of Left hand Variables	Canonical Correlation = .97		Canonical Correlation = .95		Canonical Correlation = .94		Canonical Correlation = .93		Canonical Correlation = .91		Canonical Correlation = .90	
	Left hand weights	Right hand weights	Left hand weights	Right hand weights	Left hand weights	Right hand weights	Left hand weights	Right hand weights	Left hand weights	Right hand weights	Left hand weights	Right hand weights
Mill Hill	1.94	50.06	.45	-2.94	-.45	-42.69	2.00	27.79	-1.63	-22.03	.26	39.75
	1.12	16.33	-.02	-107.20	.00	21.79	.27	-56.99	-.69	80.46	-.50	-100.57
Ke	2.58	-15.31	-1.71	59.51	1.73	-3.41	-1.02	-6.81	-.74	-30.65	1.81	-39.16
Me	-.02	21.44	-.02	-24.65	-.21	7.50	-.24	63.24	-.29	-32.16	-.22	34.30
F-test	-5.81	-56.87	6.70	26.25	2.11	-17.50	.88	1.46	3.52	7.29	-5.99	14.58
(S. of V.) Th	-13.39	50.23	-14.33	22.35	33.34	-55.87	9.46	40.97	-21.15	-16.76	9.46	13.04
Do	-4.16	9.15	-6.37	12.18	23.37	6.16	1.5	3.05	-17.79	6.10	8.69	22.36
Des	-12.70	2.74	-14.23	2.74	37.32	-50.77	6.02	39.79	-24.30	20.58	11.91	-67.23
Dep	-11.08	1.11	-3.69	15.54	17.97	44.40	7.01	-37.74	-19.70	44.40	7.36	-5.55
Pol	-2.62	37.32	-7.23	1.91	15.89	-22.97	3.22	6.70	-10.69	15.31	3.86	-7.66
Rel	-13.97	22.42	-14.86	15.52	43.97	2.59	14.33	-1.72	-31.60	7.76	13.17	6.90
(C.P.I.) Te	-.09	71.61	-.83	-41.37	1.70	33.42	1.22	17.60	.22	-63.43	.31	-12.73
I	4.91	-26.27	-18.24	-30.21	27.19	32.82	-10.26	-47.23	7.97	5.25	-10.05	22.33
Ex	1.68	-15.77	.61	33.13	-2.73	7.89	1.24	36.23	-1.24	67.83	1.56	12.62
Fr	.26	15.70	3.62	-36.64	-4.57	-41.87	3.15	22.24	-1.94	19.63	-.91	19.63
S	.51	40.15	1.11	14.17	-2.65	54.32	.06	-20.07	.16	14.17	-.03	22.44
Sr	-.57		.86		-.65		-.03		-.65		.16	
Sa	-.93		.49		-.47		.02		-.20		.91	
Mc	-1.10		1.16		-.97		-.94		-.22		.73	
Ne	-.07		.64		-.46		.42		-.44		-.51	
Sy	-.23		-.12		.64		-.63		.28		.54	
A	-.34		-.34		-.10		-.65		-.48		-.58	
C	-2.85		.65		-1.08		3.66		.96		1.73	
(C.P.I.) Do	1.05		1.49		-1.30		1.05		1.36		1.55	
Cs	.32		.04		1.23		1.05		.04		-1.19	
Sy	-.99		-2.08		-.94		.15		-2.87		1.53	
Sp	1.12		-.47		-2.31		-.53		3.85		-1.95	
Sa	-.19		.04		.45		.00		-.11		-.45	
Wb	.90		2.29		-1.10		-3.24		-3.14		-1.00	
Re	-.26		-1.76		-1.93		2.06		1.07		-.86	
So	-1.02		-2.04		-.43		-1.02		1.58		.78	
Sc	3.41		-4.02		-2.43		10.37		-3.43		2.63	
To	.72		-2.39		2.75		-3.74		-.36		-.63	
Gi	.37		2.04		-.53		-5.04		2.68		.05	
Cm	.30		.84		.14		-1.37		1.21		.46	
Ac	-.50		-.05		3.75		1.50		-2.05		.55	
At	.99		2.97		-2.55		-1.07		.12		-.04	
Ie	1.05		-.43		1.71		1.33		1.47		-.43	
Py	-.35		.71		-.65		-.22		.52		.54	
Fx	.20		-1.25		.31		-.47		-.35		.12	
Fe	.70		.04		-3.07		-1.09		-.64		-1.49	
H.D. M.M.	.18		.85		-.34		.03		.10		.52	
H.D. S.B.	1.17		.80		-.22		-1.07		.10		.00	
K. M.M.	-.15		-.11		.43		.06		-.03		.04	
Sex	-.04		.01		-.03		.18		-.03		.03	
Order	.04		-.47		.06		.18		.09		-.02	

Table 28. Normalized weights of variables contributing to canonical correlations. (Left hand variables - personality and intellectual scales; right hand variables - Kohlberg scale items)

Names of right hand variables given as number of Kohlberg Questionnaire Items.

5 and 13 would be difficult to describe. While the linear combinations could not be described in terms of current concepts and theory the very high canonical correlations indicate that there are aspects of moral judgement that are related to other aspects of personality. Thus the canonical correlations indicated that contrary to theoretical expectations some dimensions of moral judgement are related to attitudes and values. The F-test and P.O.I. scales also contributed towards some of the left hand combinations.

CHAPTER SIX

CONCLUSIONS AND SUGGESTIONS

The degree of stage mixture found was considerably greater than was expected. Although Kohlberg has claimed considerable homogeneity of level of moral reasoning, he has not provided evidence of this. The data regarding stage mixture presented here was not found to be incompatible with the data on responses reported by Kramer. Not only did the amount of stage mixture found conflict with Kohlberg's theoretical position regarding mixture but it also conflicts with his assertion that a new stage is not an addition to the existing stage but that it integrates with and replaces the previous stage. The amount of stage mixture found was too great to explain in terms of functional regressions derived from ego needs; these young adults spontaneously used a wide range of responses when answering hypothetical moral dilemmas. The explanation for such variability may be that changes in orientation behind proffering reasons occur (Wilson, 1972).

A major problem with the Kohlberg questionnaire is that of validity i.e. is it capable of eliciting the type of reasoning that people use when faced with real moral dilemmas? If so, which score represents this most accurately, modal score, moral maturity score or limit score? Of course even if the scale is found to have little relationship with reasoning in real situations the way in which people reason about hypothetical situations is still of interest to the psychologist. But if the degree of stage mixture found in this study is average, the validity of the scale would

probably be limited by its reliability. The interjudge correlations frequently reported cannot replace test-retest reliability investigation. A difficulty with test-retest using the same questionnaire is that subjects can probably remember a considerable proportion of their answers from test to retest. Therefore the only really satisfactory reliability test would have to employ equivalent forms of the test: no attempt at this measure of reliability has been made.

Kohlberg's recent introduction of an issue scoring technique gives recognition to the importance of stage mixture to development and recognition that advancement up the stages may occur at different paces on different issues. While this is compatible with his theory, extension of this scoring procedure to the scoring of adult responses would be more difficult to reconcile as the reason for stage mixture in childhood cannot be applied to adults. If in fact people do reliably respond at the same level to questions which tap the same aspect of moral judgement there is a need for a new questionnaire rather than just a new method of scoring the existing one. A number of questions specifically designed to estimate reasoning level on an aspect and forming a subscale of the questionnaire would provide the opportunity for researchers to examine the notion of aspects of moral judgement and the consistency of level of response within aspects. The present questionnaire design is not suitable for this development as it takes considerable time for subjects to answer few questions. Perhaps a sentence completion type of measure as used by

Loevinger (1964) and Hogan and Dickstein (1972) would prove more tractable.

Hogan and Dickstein's Study of Ethical Attitudes proved to be unsuitable as an alternative measure to the Kohlberg scale. Moreover their finding of correlations between socialization and empathy, and moral judgement score was not replicated, correlations with C.P.I. So and Py scales were not significant. A correlation of .24 ($p < .05$) with the C.P.I. Sa scale supports their finding of a correlation between their moral judgement score and autonomy.

Although factor analysis of the moral dilemma questions showed the moral maturity scores to be factorially complex, the discovery of a Kohlberg scale factor in the factor analysis of all personality scales points to the probability that the moral maturity scores do measure an aspect of ego development which has previously been neglected.

The development of moral judgement has been viewed by Kohlberg as a largely cognitive developmental process enhanced or retarded by social-environmental experience. But he has also considered moral judgement to develop in interaction with other aspects of ego development. The relationship between personality and stabilization level of moral judgement has been more specifically discussed by Kramer. Hence the findings in this study were unexpectedly negative. The only hypothesis confirmed and the only relationship which appeared consistently, was that of a negative correlation between authoritarianism and moral maturity. The root of this relationship is not clear however. A linear relationship based on the fact that both level 2 moral judgement responses

and high authoritarian scores depend upon an attitude of acceptance of the rightful power of authority, could have appeared in this data. But a linear relationship based on the tendency of persons of authoritarian personality to exclude values other than the ones they have already accepted, thereby reducing the probability of cognitive conflict and therefore of moral judgement development, could also have occurred. The significant relationship between female cognitive development level and moral maturity in the total sample did not reappear in the analysis of the most homogeneous scorers on the moral maturity scale or in total sample correlations with factor scores. It is likely however that the relationship would be found to exist in samples more representative of adult variability in logical reasoning. It seems doubtful that the same claim could be made for verbal facility as despite a considerable range of scores on the Mill Hill Vocabulary scale none of the correlations with moral maturity scores approached significance. Certainly a wider range of verbal facility would be found in the wider population but with cognitive level statistically controlled significant correlations are unlikely.

Although some of the personality scales other than the F-test correlated with one or two of the moral judgement factors none of them correlated significantly with moral maturity score. This applied even in the sub-groups chosen, by homogeneity of scores, as most closely representing Kohlberg's ideal types. While the majority of the significant correlations between moral factor scores and personality

scales were in the expected direction some of them were not expected to appear in this data. Although theoretically reasonable explanations of most of the correlations have been put forward it must be acknowledged that the percentage of significant correlations was low.

The significant correlation between male moral maturity scores and the religious scale of the Study of Values could not be explained in terms of differences on another scale, e.g. an association between authoritarianism and religious values. From the findings obtained here and from Klinger's findings it would seem that a thorough investigation of the relationship between these two measures may provide useful information. At present the findings conflict and no conclusions can be drawn.

The overall conclusion must be that apart from a negative relationship with authoritarianism none of the personality or value dimensions have any clear relationship to moral judgement. If this finding is replicated it has major implications for Kohlberg's approach to developing morality. If making level three judgements is in fact a cognitive ability isolated from the major personality dimensions and isolated from major value orientations it is highly probable as he suggests (Kohlberg, 1966) that adolescents could be taught to make judgements of hypothetical dilemmas at the principled level. It is likely, as Kay (1968) has contended, that most day to day moral acts depend more on attitudes and habits than on cognitive judgements. Therefore Kohlberg's training programme appears to be aimed at enabling persons, as adolescents and later as adults, to

make higher level judgements about the important moral issues that they meet less frequently. While he may be able to train them to respond to a questionnaire at the level he desires, what is the probability of lasting transfer to real situations? If in fact responses to hypothetical dilemmas are unrelated to other aspects of ego development such as empathy, autonomy, tolerance, sociability etc., the probability of lasting transfer appears to be low. However it may be that the theory is sound but the measuring device too inaccurate. Failure to find the expected correlates may be attributable to lack of reliability and hence validity of the moral judgement measuring instrument - the Kohlberg questionnaire.

On the other hand, the canonical correlation analysis showed that there were high correlations between some undefined aspects of moral judgement and some other indefinable linear combinations of personality. The measures most closely related to aspects of moral judgement were authoritarianism, inner-directedness and values as measured by the Study of Values scale. It would seem that new conceptual frameworks may be necessary before these dimensions and the relationships between them can be meaningfully explained.

Suggestions for future research:

(i) The primary need is for a thorough investigation of the reliability of the questionnaire and the development of equivalent forms of the test. It may be that new questionnaires with subscales measuring different aspects of moral judgement are required.

(ii) Kohlberg's claim that development entails step by step progression up the hierarchy of stages in such a way that one stage incorporates and replaces the preceding one requires close longitudinal investigation. The evidence of stage mixture does not support this idea.

(iii) The exact shape of the relationship between moral maturity scores and the F-test needs to be clarified. A knowledge of how these two relate at all moral judgement stages would facilitate an understanding of how one affects the other, i.e. it would indicate which of the two theoretical explanations is most plausible.

(iv) The possible relationship between cognitive development level and moral maturity in broader adult populations needs investigating.

(v) Further investigation is needed of the relationship between religious values and moral maturity.

(vi) A close examination needs to be undertaken of the P.O.I. support scale to determine exactly what it does measure. Failure to find a correlation between this scale and Kohlberg scale responses means that at least one of these scales fails to identify persons who make principled judgements, though both scales are claimed to do this.

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APPENDIX A.

Moral Judgement Questionnaire
Employing Four of Kohlberg's
Moral Dilemma Situations.

NAME _____

INSTRUCTIONS FOR DECISION STORIES
AND QUESTIONS

Please write down all the ideas or feelings the following stories and questions bring to mind. Each new story is printed on a separate page and is followed by questions for you to answer. Most of the questions require you to make a yes/no or right/wrong type of response by crossing out the answer which does not apply. This is followed by a space in which you are to give the reasons for your decision. If there is not enough space for your answer after the question, use the other side of the page to continue but ensure that you write the number of the question you are answering, beside your answer.

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a chemist in the same town had recently discovered. The drug was expensive to make, but the chemist was charging 5 times what it cost him to make the drug. He paid \$400 for the radium and charged \$2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about \$1,000, half of what it cost. He told the chemist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it, so I won't let you have it unless you give me \$2,000 now." So Heinz got desperate and broke into the man's store to steal the drug for his wife.

QUESTIONS:

1. Was Heinz right or wrong to steal the drug?

right wrong

Why?

Answer the next two questions only if your answer to question 1 was that he should steal the drug.

- 2.A If the husband does not feel very close or affectionate to his wife, should he still steal the drug?

yes no

Why?

3.A Suppose it wasn't Heinz's wife who was dying of cancer but it was one of his friends. His friend didn't have any money and there was no one in his family willing to steal the drug. Should Heinz steal the drug for his friend in that case?

yes no

Why?

Answer the next two questions only if your answer to question 1 was that he should not steal the drug.

2.B Would you steal the drug to save your wife's (husband's) life?

yes no

Why?

3.B If you were dying of cancer but were strong enough, would you steal the drug to save your own life?

yes no

Why?

All answer:

4. Heinz broke into the store and stole the drug and gave it to his wife. He was caught and brought before the judge. Should the judge send Heinz to jail for stealing or let him go free?

jail him

free him

Why?

The drug didn't work, and there was no other treatment known to medicine which could save Heinz's wife, so the doctor knew that she had only about 6 months to live. She was in terrible pain but she was so weak that a good dose of a pain killer like morphine would make her die sooner. She was delirious and almost crazy with pain and in her calm periods she would ask the doctor to give her enough morphine to kill her. She said that she couldn't stand the pain and she was going to die in a few months anyway.

QUESTIONS:

5. Should the doctor do what she asks and give her the drug that will make her die?

yes no

Why?

6. When a pet animal is badly wounded and will die it is killed to put it out of its pain. Does the same thing apply here?

yes no

Why?

7. The doctor finally decided to kill the woman to put her out of her pain. The police found out and the doctor was brought up on a charge of murder. What punishment should the judge give the doctor?

Why?

8. Do you believe that the death sentence should be given in some cases?

yes

no

Why?

Heinz had been sentenced to 10 years jail for stealing the drug. But after a couple of years he escaped and went to live in another part of the country under a new name. He saved money and slowly built up a big factory. He gave his workers the highest wages and used most of his profits to build a hospital for work in curing cancer. Twenty years had passed by when a tailor came from Heinz's home town and recognised the factory owner as being Heinz, the escaped convict whom the police had been looking for back in his home town.

QUESTIONS:

9. Should the tailor report Heinz to the police?

yes no

Why?

10. Is it a citizen's duty to report Heinz to the police?

yes no

Why?

11. If Heinz was a good friend of the tailor would it make a difference?

yes no

Why?

12. Should Heinz be sent back to jail by the judge?

yes no

Why?

Joe was a 14 year old boy who wanted to go to a summer camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper round and saved up the \$40 it cost to go and a little more besides. But just before the camp was going to start his father changed his mind about letting him go. His father's friends had decided to go on a special fishing trip and Joe's father didn't have the money it would cost him to go with them. So he told Joe to give him the money he had saved from his paper round. Joe didn't want to give up going to the camp so he thought of refusing to give his father the money.

QUESTIONS:

13. Should Joe refuse to give his father the money?

yes no

Why?

14. Does his father have the right to tell Joe to give him the money?

yes no

Why?

15. Does giving the money have anything to do with being a good son?

yes

no

Why?

16. Why should a promise be kept?

APPENDIX B.

Revised Version of Hogan
and Dickstein's 'Survey
of Ethical Attitudes'.

The following pages contain 13 sentences. Read each statement and assume that it has been made by a person with whom you are having a conversation. Then on the line below each statement, indicate what your reaction would most likely be.

1. The police has its hands tied in many cases because of the unreasonable opposition of people to wire tapping.

2. (Maori Speaker) Even after spending 3 years at high school, I can't find good work. Yet I know many whites who dropped out as soon as they were 15 who have good jobs.

3. The city is going to repeat what has been done in many other cities by building a motorway right through a slum district. Many houses will be torn down and the people will be forced out.

4. I told Jack my ideas for the new project. He took them to the boss and got the credit.

5. The new housing law is unfair. Why should I be forced to take in tenants that I find undesirable?

6. In many medical laboratories experiments are performed on live animals and very little care is taken to minimize pain.

7. I read another story today about a girl who was refused an abortion in a hospital. An incompetent doctor gave her an illegal abortion and she died.

8. I think it is unnecessarily cruel to keep condemned prisoners on 'death row' so long and to make execution such an elaborate ritual.

9. The police should be encouraged in their efforts to apprehend and prosecute homosexuals. Homosexuality threatens the foundations of our society.

10. A powerful group representing hunters and gun manufacturers is holding up a gun control law that the majority of the people in this country want.

11. The social security system must be modified. Why should we pay other people's doctors bills and hospital bills?

12. Several policeman were called into a slum area to break up a street fight, but when they arrived the local residents threw bricks at them from the windows.

13. The police were rough when they broke up that crowd of students, even though the students were parading without a permit.

APPENDIX C.

Piagetian Balance Task.

Balance Task

Apparatus:

A balance beam with 10 units of distance each side of the fulcrum with hooks for attaching weights at each $\frac{1}{2}$ unit of distance. Weights of 1, 2 and 3 units of weight.

Instructions:

Subjects were instructed to:

(i) Take weights and manipulate and examine these and the balance beam for one to two minutes.

(ii) Check that the single units are all of equal weight, that the double units weigh as heavily as two single units.

(iii) Place single unit weights on the beam, one unit at mark 1 and the other unit at mark 3 on the opposite side. Why is one side up and the other side down?

(iv) Rearrange the weights to make the beam balance.

(v) Place a double unit weight at mark 1 on one side of the beam. Balance that with a one block weight.

(vi) Place the double weight at marks 2, 3 and $3\frac{1}{2}$ successively and each time balance these with a one-block weight.

(Tasks to be evaluated)

(vii) Now state a general rule that will enable me to put any weights I wish to use on a scale and make the scale balance.

(viii) Place a three unit weight at mark 2.5. Now balance this with a one-block weight.

You have only one try.

(ix) Explain how you arrived at that response.

Evaluation: Score 1; tasks vii-ix all incorrect.

Score 2; correct answer of 7.5 for task (viii) but rule and explanation erroneous.

Score 3; (viii) and (ix) correct, (vii) correct but not fully generalized to include all possible cases - limited to balance by single unit weight, i.e. $d_2 = m_1 \times d_1$.

Score 4; as for score of three but fully correct rule, i.e. $m_1 \times d_1 = m_2 \times d_2$.

APPENDIX D.

Samples of All Other Tests Used.

CALIFORNIAN F-SCALE

INSTRUCTIONS: Please mark each statement in the left-hand margin according to your agreement or disagreement, as follows:

+1 slight support, agreement	-1 slight opposition, disagreement
+2 moderate support, "	-2 moderate opposition, "
+3 strong support, "	-3 strong opposition, "

- (1) Obedience and respect for authority are the most important virtues children should learn.
- (2) No weakness or difficulty can hold us back if we have enough will power.
- (3) Science has its place, but there are many important things that can never possibly be understood by the human mind.
- (4) Human nature being what it is, there will always be war and conflict.
- (5) Every person should have complete faith in some supernatural power whose decisions he obeys without question.
- (6) When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.
- (7) A person who has bad manners, habits and breeding can hardly expect to get along with decent people.
- (8) What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.
- (9) Some people are born with an urge to jump from high places.
- (10) Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself, especially carefully against catching an infection or disease from them.
- (11) An insult to our honor should always be punished.

- (12) Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
- (13) At the end of the Second World War the Allies were right to use some pre-war authorities in Germany to keep order and prevent chaos.
- (14) What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.
- (15) Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped.
- (16) People can be divided into two distinct classes: the weak and the strong.
- (17) There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.
- (18) Some day it will probably be shown that astrology can explain a lot of things.
- (19) Nowadays more and more people are prying into matters that should remain personal and private.
- (20) Wars and social troubles may some day be ended by an earthquake or flood that will destroy the whole world.
- (21) Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feeble-minded people.
- (22) The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.
- (23) If people would talk less and work more, everybody would be better off.
- (24) Most people don't realize how much our lives are controlled by plots hatched in secret places.
- (25) Homosexuals are hardly better than criminals and ought to be severely punished.

- (26) The businessman and the manufacturer are more important to society than the artist and the professor.
- (27) No sane, normal, decent person could ever think of hurting a close friend or relative.
- (28) Familiarity breeds contempt.
- (29) Nobody ever learned anything really important except by suffering.



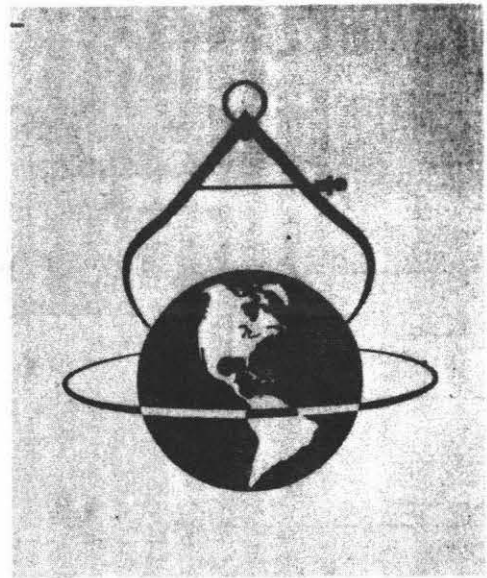
Part I

DIRECTIONS: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing appropriate figures in the boxes to the right of each question. Some of the alternatives may appear equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is *relatively* more acceptable to you. For each question you have three points that you may distribute in any of the following combinations.

1. If you agree with alternative (a) and disagree with (b), write 3 in the first box and 0 in the second box, thus
2. If you agree with (b); disagree with (a), write
3. If you have a slight preference for (a) over (b), write
4. If you have a slight preference for (b) over (a), write

		a	b	
		3	0	
a			b	
0		3		
		a		b
		2		1
	a		b	
	1		2	

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger over any one question or statement, and do not leave out any of the questions unless you find it really impossible to make a decision.



TEST BOOKLET

ALLPORT · VERNON · LINDZEY

Study of Values

THIRD EDITION

HOUGHTON MIFFLIN COMPANY

Boston

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FJ 62

California Psychological Inventory

440. There are times when I have been discouraged.
441. I have often been frightened in the middle of the night.
442. The trouble with many people is that they don't take things seriously enough.
443. I'm not the type to be a political leader.
444. My parents never really understood me.
445. I would fight if someone tried to take my rights away.
446. I must admit that people sometimes disappoint me.
447. If I saw some children hurting another child, I am sure I would try to make them stop.
448. People seem naturally to turn to me when decisions have to be made.
449. Almost every day something happens to frighten me.
450. I get sort of annoyed with writers who go out of their way to use strange and unusual words.
- 451.** I set a high standard for myself and I feel others should do the same.
452. I dislike to have to talk in front of a group of people.
453. I work under a great deal of tension.
454. My family has objected to the kind of work I do, or plan to do.
455. There seems to be a lump in my throat much of the time.
456. I have more trouble concentrating than others seem to have.
457. A person is better off if he doesn't trust anyone.
458. People who seem unsure and uncertain about things make me feel uncomfortable.
459. My sleep is fitful and disturbed.
460. A strong person doesn't show his emotions and feelings.
461. It seems that people used to have more fun than they do now.
462. Even though I am sure I am in the right, I usually give in because it is foolish to cause trouble.
463. It is hard for me just to sit still and relax.
464. From time to time I like to get completely away from work and anything that reminds me of it.
465. I must admit that I am a high-strung person.
- 466.** I am a very ticklish person.
467. At times I think I am no good at all.
468. I like to eat my meals quickly and not spend a lot of time at the table visiting and talking.
469. I must admit that it makes me angry when other people interfere with my daily activity.
470. If a person doesn't get a few lucky breaks in life it just means that he hasn't been keeping his eyes open.
471. I sometimes feel that I do not deserve as good a life as I have.
472. I feel that I would be a much better person if I could gain more understanding of myself.
473. I can't really enjoy a rest or vacation unless I have earned it by some hard work.
474. I sometimes tease animals.
475. I have a good appetite.
476. I had my own way as a child.
477. I get tired more easily than other people seem to.
478. I would be uncomfortable in anything other than fairly conventional dress.
479. I sweat very easily even on cool days.
480. I must admit it would bother me to put a worm on a fish hook.

399. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it.
400. I think I am stricter about right and wrong than most people.
401. Most young people get too much education.
402. I have had attacks in which I could not control my movements or speech, but in which I knew what was going on around me.
403. I have a natural talent for influencing people.
404. I am in favor of a very strict enforcement of all laws, no matter what the consequences.
405. People often talk about me behind my back.
- 406.** I have one or more bad habits which are so strong that it is no use fighting against them.
407. I have had no difficulty in starting or holding my bowel movement.
408. I always see to it that my work is carefully planned and organized.
409. I would never play cards (poker) with a stranger.
410. I regard the right to speak my mind as very important.
411. I am bothered by acid stomach several times a week.
412. I like to give orders and get things moving.
413. I get all the sympathy I should.
414. I do not read every editorial in the newspaper every day.
415. I have felt embarrassed over the type of work that one or more members of my family have done.
416. I don't think I'm quite as happy as others seem to be.
417. Any job is all right with me, so long as it pays well.
418. I am embarrassed with people I do not know well.
419. It often seems that my life has no meaning.
420. I used to steal sometimes when I was a youngster.
- 421.** I don't really care whether people like me or dislike me.
422. I feel like giving up quickly when things go wrong.
423. If people had not had it in for me I would have been much more successful.
424. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).
425. I have often felt guilty because I have pretended to feel more sorry about something than I really was.
426. There have been times when I have been very angry.
427. There are a few people who just cannot be trusted.
428. My home as a child was less peaceful and quiet than those of most other people.
429. Even the idea of giving a talk in public makes me afraid.
430. The things some of my family have done have frightened me.
431. As a youngster in school I used to give the teachers lots of trouble.
432. I am not afraid of picking up a disease or germs from doorknobs.
433. It is more important that a father be kind than that he be successful.
434. My skin seems to be unusually sensitive to touch.
435. If the pay was right I would like to travel with a circus or carnival.
- 436.** I never cared much for school.
437. I am troubled by attacks of nausea and vomiting.
438. I would have been more successful if people had given me a fair chance.
439. The members of my family were always very close to each other.

352. I must admit I have no great desire to learn new things.
353. No one seems to understand me.
354. A strong person will be able to make up his mind even on the most difficult questions.
355. I have strong political opinions.
356. I seldom worry about my health.
357. For most questions there is just one right answer, once a person is able to get all the facts.
358. I dream frequently about things that are best kept to myself.
359. I think I am usually a leader in my group.
360. It is impossible for an honest man to get ahead in the world.
- 361.** I like to have a place for everything and everything in its place.
362. I have never seen a vision.
363. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.
364. It bothers me when something unexpected interrupts my daily routine.
365. The future seems hopeless to me.
366. I never seem to get hungry.
367. My home life was always very pleasant.
368. I have had no difficulty starting or holding my urine.
369. I seem to do things that I regret more often than other people do.
370. Disobedience to any government is never justified.
371. I would rather be a steady and dependable worker than a brilliant but unstable one.
372. I have reason for feeling jealous of one or more members of my family.
373. My table manners are not quite as good at home as when I am out in company.
374. I would never go out of my way to help another person if it meant giving up some personal pleasure.
375. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.
- 376.** I enjoy planning things, and deciding what each person should do.
377. Most of the arguments or quarrels I get into are over matters of principle.
378. I doubt if anyone is really happy.
379. I would rather not have very much responsibility for other people.
380. I am known as a hard and steady worker.
381. My mouth feels dry almost all the time.
382. Success is a matter of will power.
383. I usually have to stop and think before I act even in trifling matters.
384. Most people would be better off if they never went to school at all.
385. It is pretty easy for people to win arguments with me.
386. I know who is responsible for most of my troubles.
387. I don't like things to be uncertain and unpredictable.
388. When I am cornered I tell that portion of the truth which is not likely to hurt me.
389. I get pretty discouraged with the law when a smart lawyer gets a criminal free.
390. I have not lived the right kind of life.
- 391.** I am quite a fast reader.
392. I daydream very little.
393. I have used alcohol excessively.
394. Even when I have gotten into trouble I was usually trying to do the right thing.
395. It is very important to me to have enough friends and social life.
396. I sometimes wanted to run away from home.
397. Once I have my mind made up I seldom change it.
398. Life usually hands me a pretty raw deal.

309. I have been afraid of things or people that I knew could not hurt me.
310. I would rather have people dislike me than look down on me.
311. I cannot do anything well.
312. Any man who is able and willing to work hard has a good chance of succeeding.
313. I hardly ever feel pain in the back of the neck.
314. I must admit I try to see what others think before I take a stand.
315. People should not have to pay taxes for the schools if they do not have children.
- 316.** My parents wanted me to "make good" in the world.
317. I often think about how I look and what impression I am making upon others.
318. When I was a child I didn't care to be a member of a crowd or gang.
319. In a group, I usually take the responsibility for getting people introduced.
320. I would be willing to describe myself as a pretty "strong" personality.
321. I almost never go to sleep.
322. I do not like to loan my things to people who are careless in the way they take care of them.
323. I have never done any heavy drinking.
324. Voting is nothing but a nuisance.
325. When I am feeling very happy and active, someone who is blue or low will spoil it all.
326. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.
327. I find it easy to "drop" or "break with" a friend.
328. I find that a well-ordered mode of life with regular hours is congenial to my temperament.
329. It is hard for me to sympathize with someone who is always doubting and unsure about things.
330. Everything tastes the same.
- 331.** I often start things I never finish.
332. I could be perfectly happy without a single friend.
333. Education is more important than most people think.
334. I get nervous when I have to ask someone for a job.
335. There are times when I act like a coward.
336. Sometimes I used to feel that I would like to leave home.
337. Much of the time my head seems to hurt all over.
338. I never worry about my looks.
339. I have been in trouble one or more times because of my sex behavior.
340. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."
341. My people treat me more like a child than a grown-up.
342. Some people exaggerate their troubles in order to get sympathy.
343. In school most teachers treated me fairly and honestly.
344. I am made nervous by certain animals.
345. I go out of my way to meet trouble rather than try to escape it.
- 346.** I must admit I am a pretty fair talker.
347. I never make judgments about people until I am sure of the facts.
348. I usually try to do what is expected of me, and to avoid criticism.
349. If a person is clever enough to cheat someone out of a large sum of money, he ought to be allowed to keep it.
350. A person should not be expected to do anything for his community unless he is paid for it.
351. Some of my family have habits that bother and annoy me very much.

265. I dread the thought of an earthquake.
266. I think most people would lie to get ahead.
267. I am a better talker than a listener.
268. At times I have been very anxious to get away from my family.
269. I like science.
270. I often lose my temper.
- 271.** My parents were always very strict and stern with me.
272. I must admit I feel sort of scared when I move to a strange place.
273. I am bothered by people outside, on street-cars, in stores, etc., watching me.
274. I'm pretty sure I know how we can settle the international problems we face today.
275. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
276. I have very few quarrels with members of my family.
277. I have no fear of water.
278. If I get too much change in a store, I always give it back.
279. I often get disgusted with myself.
280. I enjoy many different kinds of play and recreation.
281. Society owes a lot more to the businessman and the manufacturer than it does to the artist and the professor.
282. A large number of people are guilty of bad sexual conduct.
283. I like to read about science.
284. It is hard for me to act natural when I am with new people.
285. I refuse to play some games because I am not good at them.
- 286.** I have never done anything dangerous for the thrill of it.
287. I think I would like to belong to a singing club.
288. As a youngster I was suspended from school one or more times for cutting up.
289. There have been times when I have worried a lot about something that was not really important.
290. I have never been in trouble because of my sex behavior.
291. I think I would like to belong to a motorcycle club.
292. I used to like it very much when one of my papers was read to the class in school.
293. Every now and then I get into a bad mood, and no one can do anything to please me.
294. I feel that I have often been punished without cause.
295. I would be willing to give money myself in order to right a wrong, even though I was not mixed up in it in the first place.
296. I would like to be an actor on the stage or in the movies.
297. At times I have a strong urge to do something harmful or shocking.
298. I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.
299. I don't seem to care what happens to me.
300. Police cars should be especially marked so that you can always see them coming.
- 301.** I am afraid to be alone in the dark.
302. I have often gone against my parents' wishes.
303. We should cut down on our use of oil, if necessary, so that there will be plenty left for the people fifty or a hundred years from now.
304. When the community makes a decision, it is up to a person to help carry it out even if he had been against it.
305. I often wish people would be more definite about things.
306. I have nightmares every few nights.
307. If I am driving a car, I try to keep others from passing me.
308. I have a great deal of stomach trouble.

219. Most people inwardly dislike putting themselves out to help other people.
220. I feel uneasy indoors.
221. People have a real duty to take care of their aged parents, even if it means making some pretty big sacrifices.
222. I would like to belong to a discussion and study club.
223. I keep out of trouble at all costs.
224. I usually expect to succeed in things I do.
225. People pretend to care more about one another than they really do.
- 226.** Most people worry too much about sex.
227. It is hard for me to find anything to talk about when I meet a new person.
228. I like to read about history.
229. I much prefer symmetry to asymmetry.
230. I would rather be a steady and dependable worker than a brilliant but unstable one.
231. I am apt to show off in some way if I get the chance.
232. Sometimes I feel that I am about to go to pieces.
233. A person does not need to worry about other people if only he looks after himself.
234. We ought to pay our elected officials better than we do.
235. I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community.
236. I am so touchy on some subjects that I can't talk about them.
237. The future is too uncertain for a person to make serious plans.
238. Sometimes I just can't seem to get going.
239. I like to talk before groups of people.
240. I would like to be a nurse.
- 241.** The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.
242. I am a good mixer.
243. I am often bothered by useless thoughts which keep running through my mind.
244. If I were a reporter I would like very much to report news of the theater.
245. Most of the time I feel happy.
246. I like to plan out my activities in advance.
247. When a man is with a woman he is usually thinking about things related to her sex.
248. I must admit that I have a bad temper, once I get angry.
249. I like mechanics magazines.
250. I must admit I find it very hard to work under strict rules and regulations.
251. I like large, noisy parties.
252. I sometimes feel that I am a burden to others.
253. When prices are high you can't blame a person for getting all he can while the getting is good.
254. I have never deliberately told a lie.
255. Only a fool would try to change our American way of life.
- 256.** I want to be an important person in the community.
257. I often feel as though I have done something wrong or wicked.
258. In school I found it very hard to talk before the class.
259. I usually feel that life is worthwhile.
260. I always try to do at least a little better than what is expected of me.
261. We ought to let Europe get out of its own mess; it made its bed, let it lie in it.
262. There have been a few times when I have been very mean to another person.
263. Lawbreakers are almost always caught and punished.
264. I would be very unhappy if I was not successful at something I had seriously started to do.

176. I commonly wonder what hidden reason another person may have for doing something nice for me.
177. I am certainly lacking in self-confidence.
178. Most people are secretly pleased when someone else gets into trouble.
179. When I work on a committee I like to take charge of things.
180. My parents have generally let me make my own decisions.
181. I always tried to make the best school grades that I could.
182. I would rather go without something than ask for a favor.
183. Sometimes I feel as if I must injure either myself or someone else.
184. I have had more than my share of things to worry about.
185. I often do whatever makes me feel cheerful here and now, even at the cost of some distant goal.
186. I usually don't like to talk much unless I am with people I know very well.
187. I am inclined to take things hard.
188. I am quite often not in on the gossip and talk of the group I belong to.
189. In school my marks in deportment were quite regularly bad.
190. Only a fool would ever vote to increase his own taxes.
191. I can remember "playing sick" to get out of something.
192. When I meet a stranger I often think that he is better than I am.
193. I would be ashamed not to use my privilege of voting.
194. I like to keep people guessing what I'm going to do next.
195. The most important things to me are my duties to my job and to my fellowman.
196. I think I would like to fight in a boxing match sometime.
197. Once in a while I laugh at a dirty joke.
198. Before I do something I try to consider how my friends will react to it.
199. I would like to be a soldier.
200. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.
201. I have no patience with people who believe there is only one true religion.
202. If given the chance I would make a good leader of people.
203. When things go wrong I sometimes blame the other fellow.
204. I like to plan a home study schedule and then follow it.
205. I enjoy a race or game better when I bet on it.
206. I have often found people jealous of my good ideas, just because they had not thought of them first.
207. Sometimes at elections I vote for men about whom I know very little.
208. I like to go to parties and other affairs where there is lots of loud fun.
209. Most people are honest chiefly through fear of being caught.
210. I very much like hunting.
211. I have frequently found myself, when alone, pondering such abstract problems as freewill, evil, etc.
212. I have never been in trouble with the law.
213. It makes me angry when I hear of someone who has been wrongly prevented from voting.
214. In school I was sometimes sent to the principal for cutting up.
215. I would like to write a technical book.
216. At times I have worn myself out by undertaking too much.
217. I think I would like the work of a librarian.
218. I love to go to dances.

131. One of my aims in life is to accomplish something that would make my mother proud of me.
132. I fall in and out of love rather easily.
133. I feel as good now as I ever have.
134. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing.
135. I wake up fresh and rested most mornings.
- 136.** Most people make friends because friends are likely to be useful to them.
137. I wish I were not bothered by thoughts about sex.
138. I seldom or never have dizzy spells.
139. It is all right to get around the law if you don't actually break it.
140. I enjoy hearing lectures on world affairs.
141. Parents are much too easy on their children nowadays.
142. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.
143. I like to be with a crowd who play jokes on one another.
144. I am somewhat afraid of the dark.
145. I have a tendency to give up easily when I meet difficult problems.
146. I would like to wear expensive clothes.
147. I certainly feel useless at times.
148. I believe women should have as much sexual freedom as men.
149. I consider a matter from every standpoint before I make a decision.
150. Criticism or scolding makes me very uncomfortable.
- 151.** I have strange and peculiar thoughts.
152. I read at least ten books a year.
153. If I am not feeling well I am somewhat cross and grouchy.
154. I like tall women.
155. A person should adapt his ideas and his behavior to the group that happens to be with him at the time.
156. I hardly ever get excited or thrilled.
157. I have the wanderlust and am never happy unless I am roaming or traveling about.
158. I frequently notice my hand shakes when I try to do something.
159. I feel nervous if I have to meet a lot of people.
160. I would like to hear a great singer in an opera.
161. I am sometimes cross and grouchy without any good reason.
162. Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures.
163. I like parties and socials.
164. My parents have often disapproved of my friends.
165. I do not mind taking orders and being told what to do.
- 166.** In school I always looked far ahead in planning what courses to take.
167. I should like to belong to several clubs or lodges.
168. My home life was always happy.
169. Teachers often expect too much work from the students.
170. I often act on the spur of the moment without stopping to think.
171. I think I could do better than most of the present politicians if I were in office.
172. I do not have a great fear of snakes.
173. My way of doing things is apt to be misunderstood by others.
174. I never make judgments about people until I am sure of the facts.
175. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.

86. Most of the arguments or quarrels I get into are over matters of principle.
87. I like adventure stories better than romantic stories.
88. I do not like to see people carelessly dressed.
89. Once a week or oftener I feel suddenly hot all over, without apparent cause.
90. As long as a person votes every four years, he has done his duty as a citizen.
91. Sometimes I think of things too bad to talk about.
92. People often expect too much of me.
93. I would do almost anything on a dare.
94. With things going as they are, it's pretty hard to keep up hope of amounting to something.
95. The idea of doing research appeals to me.
96. I take a rather serious attitude toward ethical and moral issues.
97. I would like the job of a foreign correspondent for a newspaper.
98. People today have forgotten how to feel properly ashamed of themselves.
99. I cannot keep my mind on one thing.
100. I prefer a shower to a bathtub.
101. I must admit that I often do as little work as I can get by with.
102. I like to be the center of attention.
103. I like to listen to symphony orchestra concerts on the radio.
104. I would like to see a bullfight in Spain.
105. I am fascinated by fire.
106. The average person is not able to appreciate art and music very well.
107. I can be friendly with people who do things which I consider wrong.
108. I have no dread of going into a room by myself where other people have already gathered and are talking.
109. I get pretty discouraged sometimes.
110. The thought of being in an automobile accident is very frightening to me.
111. When in a group of people I have trouble thinking of the right things to talk about.
112. I set a high standard for myself and I feel others should do the same.
113. School teachers complain a lot about their pay, but it seems to me that they get as much as they deserve.
114. At times I feel like picking a fist fight with someone.
115. Sometimes I have the same dream over and over.
116. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.
117. I don't blame anyone for trying to grab all he can get in this world.
118. I believe we are made better by the trials and hardships of life.
119. Planning one's activities in advance is very likely to take most of the fun out of life.
120. I do not always tell the truth.
121. I was a slow learner in school.
122. I like poetry.
123. I think I am stricter about right and wrong than most people.
124. I am likely not to speak to people until they speak to me.
125. There is something wrong with a person who can't take orders without getting angry or resentful.
126. I do not dread seeing a doctor about a sickness or injury.
127. I always try to consider the other fellow's feelings before I do something.
128. It takes a lot of argument to convince most people of the truth.
129. I think I would like to drive a racing car.
130. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."

42. I sometimes pretend to know more than I really do.
43. It's no use worrying my head about public affairs; I can't do anything about them anyhow.
44. Sometimes I feel like smashing things.
45. As a child I used to be able to go to my parents with my problems.
46. I think I would like the work of a school teacher.
47. Women should not be allowed to drink in cocktail bars.
48. Most people would tell a lie if they could gain by it.
49. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.
50. I seem to be about as capable and smart as most others around me.
51. Every family owes it to the city to keep their sidewalks cleared in the winter and their lawn mowed in the summer.
52. I usually take an active part in the entertainment at parties.
53. I think I would enjoy having authority over other people.
54. I find it hard to keep my mind on a task or job.
55. Some of my family have quick tempers.
56. I hate to be interrupted when I am working on something.
57. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards.
58. I get very tense and anxious when I think other people are disapproving of me.
59. The trouble with many people is that they don't take things seriously enough.
60. I have often met people who were supposed to be experts who were no better than I.
61. I liked school.
62. I think Lincoln was greater than Washington.
63. It is always a good thing to be frank.
64. A windstorm terrifies me.
65. I think I would like the work of a clerk in a large department store.
66. Sometimes I feel like swearing.
67. I feel sure that there is only one true religion.
68. I am embarrassed by dirty stories.
69. I would disapprove of anyone's drinking to the point of intoxication at a party.
70. Sometimes I cross the street just to avoid meeting someone.
71. I get excited very easily.
72. I used to keep a diary.
73. Maybe some minority groups do get rough treatment, but it's no business of mine.
74. It is very hard for me to tell anyone about myself.
75. We ought to worry about our own country and let the rest of the world take care of itself.
76. I often feel as if the world was just passing me by.
77. When I get bored I like to stir up some excitement.
78. I like to boast about my achievements every now and then.
79. I am afraid of deep water.
80. There have been times when I have been very angry.
81. I must admit I often try to get my own way regardless of what others may want.
82. I think I would like the work of a garage mechanic.
83. I usually feel nervous and ill at ease at a formal dance or party.
84. I have at one time or another in my life tried my hand at writing poetry.
85. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out.

1. I enjoy social gatherings just to be with people.
2. The only interesting part of the newspaper is the "funnies."
3. I looked up to my father as an ideal man.
4. A person needs to "show off" a little now and then.
5. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."
6. I have a very strong desire to be a success in the world.
7. When in a group of people I usually do what the others want rather than make suggestions.
8. I liked "Alice in Wonderland" by Lewis Carroll.
9. I usually go to the movies more than once a week.
10. Some people exaggerate their troubles in order to get sympathy.
11. People can pretty easily change me even though I thought that my mind was already made up on a subject.
12. I often feel that I made a wrong choice in my occupation.
13. I am very slow in making up my mind.
14. I always follow the rule: business before pleasure.
15. Several times a week I feel as if something dreadful is about to happen.
16. There's no use in doing things for people; you only find that you get it in the neck in the long run.
17. I would like to be a journalist.
18. A person who doesn't vote is not a good citizen.
19. I think I would like the work of a building contractor.
20. I have had very peculiar and strange experiences.
21. My daily life is full of things that keep me interested.
22. When a person "pads" his income tax report so as to get out of some of his taxes, it is just as bad as stealing money from the government.
23. In most ways the poor man is better off than the rich man.
24. I always like to keep my things neat and tidy and in good order.
25. Clever, sarcastic people make me feel very uncomfortable.
26. It's a good thing to know people in the right places so you can get traffic tags, and such things, taken care of.
27. It makes me feel like a failure when I hear of the success of someone I know well.
28. I think I would like the work of a dress designer.
29. I am often said to be hotheaded.
30. I gossip a little at times.
31. I doubt whether I would make a good leader.
32. I tend to be on my guard with people who are somewhat more friendly than I had expected.
33. Usually I would prefer to work with women.
34. There are a few people who just cannot be trusted.
35. I become quite irritated when I see someone spit on the sidewalk.
36. When I was going to school I played hooky quite often.
37. I have very few fears compared to my friends.
38. It is hard for me to start a conversation with strangers.
39. I must admit that I enjoy playing practical jokes on people.
40. I get very nervous if I think that someone is watching me.
41. For most questions there is just one right answer, once a person is able to get all the facts.

California Psychological Inventory

HARRISON G. GOUGH, Ph.D.

DIRECTIONS:

This booklet contains a series of statements. Read each one, decide how you feel about it, and then mark your answer *on the special answer sheet*. **MAKE NO MARKS ON THE TEST BOOKLET.** If you *agree* with a statement, or feel that it is true about you, answer TRUE. If you *disagree* with a statement, or feel that it is not true about you, answer FALSE.

If you find a few questions which you cannot or prefer not to answer, they may be omitted. However, in marking your answers on the answer sheet, make sure that the number of the statement is the same as the number on the answer sheet.

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- | | YES | NO |
|--|-----------------------|-----------------------|
| 28. After you have done something important, do you often come away feeling you could have done better? | <input type="radio"/> | <input type="radio"/> |
| 29. Are you mostly quiet when you are with other people? | <input type="radio"/> | <input type="radio"/> |
| 30. Do you sometimes gossip? | <input type="radio"/> | <input type="radio"/> |
| 31. Do ideas run through your head so that you cannot sleep? | <input type="radio"/> | <input type="radio"/> |
| 32. If there is something you want to know about, would you rather look it up in a book than talk to someone about it? | <input type="radio"/> | <input type="radio"/> |
| 33. Do you get palpitations or thumping in your heart? | <input type="radio"/> | <input type="radio"/> |
| 34. Do you like the kind of work that you need to pay close attention to? | <input type="radio"/> | <input type="radio"/> |
| 35. Do you get attacks of shaking or trembling? | <input type="radio"/> | <input type="radio"/> |
| 36. Would you always declare <i>everything</i> at the customs, even if you knew that you could never be found out? | <input type="radio"/> | <input type="radio"/> |
| 37. Do you hate being with a crowd who play jokes on one another? | <input type="radio"/> | <input type="radio"/> |
| 38. Are you an irritable person? | <input type="radio"/> | <input type="radio"/> |
| 39. Do you like doing things in which you have to act quickly? | <input type="radio"/> | <input type="radio"/> |
| 40. Do you worry about awful things that might happen? | <input type="radio"/> | <input type="radio"/> |
| 41. Are you slow and unhurried in the way you move? | <input type="radio"/> | <input type="radio"/> |
| 42. Have you ever been late for an appointment or work? | <input type="radio"/> | <input type="radio"/> |
| 43. Do you have many nightmares? | <input type="radio"/> | <input type="radio"/> |
| 44. Do you like talking to people so much that you never miss a chance of talking to a stranger? | <input type="radio"/> | <input type="radio"/> |
| 45. Are you troubled by aches and pains? | <input type="radio"/> | <input type="radio"/> |
| 46. Would you be very unhappy if you could not see lots of people most of the time? | <input type="radio"/> | <input type="radio"/> |
| 47. Would you call yourself a nervous person? | <input type="radio"/> | <input type="radio"/> |
| 48. Of all the people you know, are there some whom you definitely do not like? | <input type="radio"/> | <input type="radio"/> |
| 49. Would you say that you were fairly self-confident? | <input type="radio"/> | <input type="radio"/> |
| 50. Are you easily hurt when people find fault with you or your work? | <input type="radio"/> | <input type="radio"/> |
| 51. Do you find it hard to really enjoy yourself at a lively party? | <input type="radio"/> | <input type="radio"/> |
| 52. Are you troubled with feelings of inferiority? | <input type="radio"/> | <input type="radio"/> |
| 53. Can you easily get some life into a rather dull party? | <input type="radio"/> | <input type="radio"/> |
| 54. Do you sometimes talk about things you know nothing about? | <input type="radio"/> | <input type="radio"/> |
| 55. Do you worry about your health? | <input type="radio"/> | <input type="radio"/> |
| 56. Do you like playing pranks on others? | <input type="radio"/> | <input type="radio"/> |
| 57. Do you suffer from sleeplessness? | <input type="radio"/> | <input type="radio"/> |

PLEASE CHECK TO SEE THAT YOU HAVE ANSWERED ALL THE QUESTIONS

E N L

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FORM A

- | | YES | NO |
|---|-----------------------|-----------------------|
| 1. Do you often long for excitement? | <input type="radio"/> | <input type="radio"/> |
| 2. Do you often need understanding friends to cheer you up? | <input type="radio"/> | <input type="radio"/> |
| 3. Are you usually carefree? | <input type="radio"/> | <input type="radio"/> |
| 4. Do you find it very hard to take no for an answer? | <input type="radio"/> | <input type="radio"/> |
| 5. Do you stop and think things over before doing anything? | <input type="radio"/> | <input type="radio"/> |
| 6. If you say you will do something do you always keep your promise, no matter how inconvenient it might be to do so? | <input type="radio"/> | <input type="radio"/> |
| 7. Does your mood often go up and down? | <input type="radio"/> | <input type="radio"/> |
| 8. Do you generally do and say things quickly without stopping to think? | <input type="radio"/> | <input type="radio"/> |
| 9. Do you ever feel "just miserable" for no good reason? | <input type="radio"/> | <input type="radio"/> |
| 10. Would you do almost anything for a dare? | <input type="radio"/> | <input type="radio"/> |
| 11. Do you suddenly feel shy when you want to talk to an attractive stranger? | <input type="radio"/> | <input type="radio"/> |
| 12. Once in a while do you lose your temper and get angry? | <input type="radio"/> | <input type="radio"/> |
| 13. Do you often do things on the spur of the moment? | <input type="radio"/> | <input type="radio"/> |
| 14. Do you often worry about things you should not have done or said? | <input type="radio"/> | <input type="radio"/> |
| 15. Generally, do you prefer reading to meeting people? | <input type="radio"/> | <input type="radio"/> |
| 16. Are your feelings rather easily hurt? | <input type="radio"/> | <input type="radio"/> |
| 17. Do you like going out a lot? | <input type="radio"/> | <input type="radio"/> |
| 18. Do you occasionally have thoughts and ideas that you would not like other people to know about? | <input type="radio"/> | <input type="radio"/> |
| 19. Are you sometimes bubbling over with energy and sometimes very sluggish? | <input type="radio"/> | <input type="radio"/> |
| 20. Do you prefer to have few but special friends? | <input type="radio"/> | <input type="radio"/> |
| 21. Do you daydream a lot? | <input type="radio"/> | <input type="radio"/> |
| 22. When people shout at you, do you shout back? | <input type="radio"/> | <input type="radio"/> |
| 23. Are you often troubled about feelings of guilt? | <input type="radio"/> | <input type="radio"/> |
| 24. Are <i>all</i> your habits good and desirable ones? | <input type="radio"/> | <input type="radio"/> |
| 25. Can you usually let yourself go and enjoy yourself a lot at a gay party? | <input type="radio"/> | <input type="radio"/> |
| 26. Would you call yourself tense or "highly-strung"? | <input type="radio"/> | <input type="radio"/> |
| 27. Do other people think of you as being very lively? | <input type="radio"/> | <input type="radio"/> |

EYSENCK PERSONALITY INVENTORY

by H. J. Eysenck and Sybil B. G. Eysenck

PERSONALITY QUESTIONNAIRE

FORM A

NAME..... AGE.....

OCCUPATION..... SEX.....

N=

E=

L=

Instructions

Here are some questions regarding the way you behave, feel and act. After each question is a space for answering "YES" or "NO".

Try to decide whether "YES" or "NO" represents your usual way of acting or feeling. Then put a cross in the circle under the column headed "YES" or "NO". Work quickly, and don't spend too much time over any question; we want your first reaction, not a long-drawn out thought process. The whole questionnaire shouldn't take more than a few minutes. Be sure not to omit any questions.

Now turn the page over and go ahead. Work quickly, and remember to answer every question. There are no right or wrong answers, and this isn't a test of intelligence or ability, but simply a measure of the way you behave.



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RECORD FORM

Progressive Matrices 1947

Name _____

Date _____

Age _____ yrs. _____ mths.

Group _____

SET 1		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

SET 2											
1			13			25			37		
2			14			26			38		
3			15			27			39		
4			16			28			40		
5			17			29			41		
6			18			30			42		
7			19			31			43		
8			20			32			44		
9			21			33			45		
10			22			34			46		
11			23			35			47		
12			24			36			48		

TIME : Set 1 _____

Set 2 _____

GRADE : Set 1 _____

Set 2 _____

Notes :—

- 5 -

SET A

In each group of six words below underline the word which means the same as the word in heavy type above the group, as it has been done in the first example :

Begun.....

1 **CONTINUE**

clash clutter
tilt keep on
read bewail

2 **SHRIVEL**

linger heed
volunteer haunt
wither shiver

3 **PERFUME**

scent box
ledge oath
tower pouch

4 **MALARIA**

basement tune
theatre fruit
ocean fever

5 **BRAG**

choose boast
stone hope
lag jerk

6 **FASCINATED**

illtreated modelled
poisoned charmed
frightened copied

7 **MINGLE**

interfere mix
declare press
gamble remark

8 **PROSPER**

imagine propose
trespass beseech
succeed punish

9 **ELEVATE**

revolve move
raise work
waver disperse

10 **VERIFY**

dedicate correct
chastise change
confirm purify

11 **RUSE**

limb paste
colour burn
rude trick

12 **FORMIDABLE**

tremendous unexpired
feasible orderly
ravishing remembrance

13 **IMMERSE**

frequent hug
reverse dip
rise show

14 **DOCILE**

passionate meek
dominant homely
careless dumb

15 **STANCE**

partition fixed
position slope
glance grief

16 **VIRILE**

demanding familiar
barbarous concise
vulgar robust

17 **SULTRY**

instinctive severe
sulky muggy
trivial solid

18 **EFFACE**

rotate adjoin
disgust mark
delete ascend

19 **CONCILIATE**

congregate reverse
pacify radiate
compress strengthen

20 **SENSUAL**

controversial carnal
necessary crucial
rational careful

21 **CONSTRUE**

interpret scatter
contradict collect
prophecy anneal

22 **GARRULOUS**

ridiculous daring
massive ugly
talkative fast

23 **CRITERION**

superior critic
certitude standard
clarion crisis

24 **PALLIATE**

regenerate qualify
alleviate imitate
stimulate erase

25 **FELICITOUS**

sincere faithful
valedictory altruistic
voracious opportune

26 **ADULATE**

increase waver
admire flatter
prosper inflate

27 **LATENT**

potential discharged
overburdened delayed
ingenious hostile

28 **OBDURATE**

formidable permanent
hesitant obsolete
exorbitant stubborn

29 **RECONDITE**

brilliant effervescent
vindictive abstruse
indifferent wise

30 **AMBIT**

talisman confines
armature arc
camber ideal

31 **EXIGUOUS**

exhausting prodigious
indigenous esoteric
scanty expedient

32 **PUTATIVE**

punishable computable
supposed worthless
aggressive reconcilable

33 **CACHINNATION**

guffaw succour
conclave conjunction
cunning controversy

34 **MANUMIT**

manufacture liberate
enumerate emanate
accomplish permit

Ended....

SET B

Write down in a few words the meaning of each of the following words as it has been done for the first word.

Begun

1. Connect *Link up*
2. Provide
3. Schooner
4. Stubborn
5. Liberty
6. Courteous
7. Resemblance
8. Thrive
9. Precise
10. Dwindle
11. Lavish
12. Anonymous
13. Whim
14. Surmount
15. Bombastic
16. Glower
17. Envisage
18. Recumbent
19. Trumpery
20. Levity
21. Perpetrate
22. Libertine
23. Amulet
24. Querulous
25. Abnegate
26. Vagary
27. Temerity
28. Traduce
29. Sedulous
30. Fecund
31. Minatory
32. Specious
33. Nugatory
34. Adumbrate

Ended

RECORD
of
The Mill Hill Vocabulary Scale
Form 2 Senior (1943)
and
Progressive Matrices 1947

Surname..... Christian Names..... Date.....

Age.....yrs.....mths. State..... Group.....

Synonyms..... Time.....

Definitions..... Time.....

P.M. 1947 Set 1..... Time.....

Set 2..... Time.....

Other Tests

.....

.....

.....

.....

Notes



1. The main object of scientific research should be the discovery of truth rather than its practical applications. (a) Yes; (b) No.
2. Taking the Bible as a whole, one should regard it from the point of view of its beautiful mythology and literary style rather than as a spiritual revelation. (a) Yes; (b) No.
3. Which of the following men do you think should be judged as contributing more to the progress of mankind? (a) Aristotle; (b) Abraham Lincoln.
4. Assuming that you have sufficient ability, would you prefer to be: (a) a banker; (b) a politician?
5. Do you think it is justifiable for great artists, such as Beethoven, Wagner and Byron to be selfish and negligent of the feelings of others? (a) Yes; (b) No.
6. Which of the following branches of study do you expect ultimately will prove more important for mankind? (a) mathematics; (b) theology.
7. Which would you consider the more important function of modern leaders? (a) to bring about the accomplishment of practical goals; (b) to encourage followers to take a greater interest in the rights of others.
8. When witnessing a gorgeous ceremony (ecclesiastical or academic, induction into office, etc.), are you more impressed: (a) by the color and pageantry of the occasion itself; (b) by the influence and strength of the group?

a	b				
□	□				
a		a		b	
□		□		□	
a			b		
□			□		
a		a	b		
□		□	□		
a				b	
□				□	
		a		b	
		□		□	

Total						
	R	S	T	X	Y	Z

17. The aim of the churches at the present time should be: (a) to bring out altruistic and charitable tendencies; (b) to encourage spiritual worship and a sense of communion with the highest.

a

b

18. If you had some time to spend in a waiting room and there were only two magazines to choose from, would you prefer: (a) SCIENTIFIC AGE; (b) ARTS AND DECORATIONS?

a

b

19. Would you prefer to hear a series of lectures on: (a) the comparative merits of the forms of government in Britain and in the United States; (b) the comparative development of the great religious faiths?

a

b

20. Which of the following would you consider the more important function of education? (a) its preparation for practical achievement and financial reward; (b) its preparation for participation in community activities and aiding less fortunate persons.

a

b

21. Are you more interested in reading accounts of the lives and works of men such as: (a) Alexander, Julius Caesar, and Charlemagne; (b) Aristotle, Socrates, and Kant?

a

b

22. Are our modern industrial and scientific developments signs of a greater degree of civilization than those attained by any previous society, the Greeks, for example? (a) Yes; (b) No.

a

b

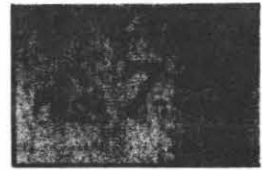
23. If you were engaged in an industrial organization (and assuming salaries to be equal), would you prefer to work: (a) as a counselor for employees; (b) in an administrative position?

a

b

Total

R	S	T	X	Y	Z



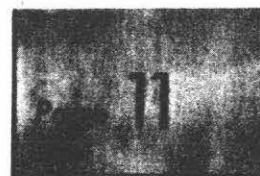
Part II

DIRECTIONS: Each of the following situations or questions is followed by four possible attitudes or answers. Arrange these answers in the order of your personal preference by writing, in the appropriate box at the right, a score of 4, 3, 2, or 1. To the statement you prefer most give 4, to the statement that is second most attractive 3, and so on.

Example: If this were a question and the following statements were alternative choices you would place:

4 in the box if this statement appeals to you most.					
			4		
3 in the box if this statement appeals to you second best.	3				
2 in the box if this statement appeals to you third best.					2
1 in the box if this statement represents your interest or preference least of all.			1		

You may think of answers which would be preferable from your point of view to any of those listed. It is necessary, however, that you make your selection from the alternatives presented, and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to state your preference, you may omit the question. Be sure not to assign more than *one* 4, *one* 3, etc., for each question.



SCORE SHEET FOR THE STUDY OF VALUES

DIRECTIONS:

1. First make sure that every question has been answered.

Note: If you have found it impossible to answer all the questions, you may give equal scores to the alternative answers under each question that has been omitted; thus,

Part I. $1\frac{1}{2}$ for each alternative. The sum of the scores for (a) and (b) must always equal 3.

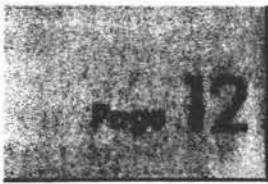
Part II. $2\frac{1}{2}$ for each alternative. The sum of the scores for the four alternatives under each question must always equal 10.

2. Add the vertical columns of scores on each page and enter the total in the boxes at the bottom of the page.
3. Transcribe the totals from each of the foregoing pages to the columns below. For each page enter the total for each column (R, S, T, etc.) in the space that is labeled with the same letter. **Note that the order in which the letters are inserted in the columns below differs for the various pages.**

Page Totals	Theoretical	Economic	Aesthetic	Social	Political	Religious	The sum of the scores for each row must equal the figure given below.
Part I							
Page 3	(R)	(S)	(T)	(X)	(Y)	(Z)	24
Page 4	(Z)	(Y)	(X)	(T)	(S)	(R)	24
Page 5	(X)	(R)	(Z)	(S)	(T)	(Y)	21
Page 6	(S)	(X)	(Y)	(R)	(Z)	(T)	21
Part II							
Page 8	(Y)	(T)	(S)	(Z)	(R)	(X)	60
Page 9	(T)	(Z)	(R)	(Y)	(X)	(S)	50
Page 10	(R)	(S)	(T)	(X)	(Y)	(Z)	40
Total							240
Correction Figures	+ 2*	- 1	+ 4	- 2*	+ 2	- 5	
Final Total							240

4. Add the totals for the six columns. Add or subtract the correction figures as indicated.
5. Check your work by making sure that the total score for all six columns equals 240. (Use the margins for your additions, if you wish.)
6. Plot the scores by marking points on the *vertical lines* in the graph on the next page. Draw lines to connect these six points.

*In the 1951 Edition these figures were: *Theoretical* +3, *Social* -3. These new correction figures have been employed in determining the norms in the 1960 manual.



NAME _____

DATE _____

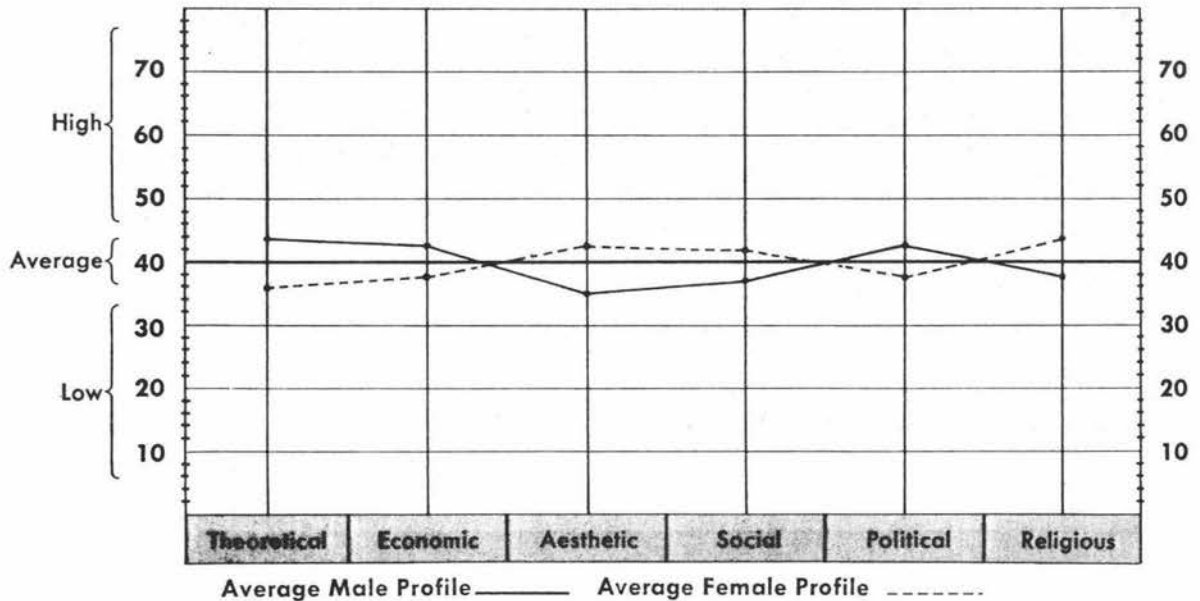
Last

First

Middle Initial

SEX (M or F): _____

PROFILE OF VALUES



INTERPRETATION

The profile can be best interpreted if the scores obtained are compared with the following ranges. (Detailed norms for college students and for certain occupations will be found in the *Manual of Directions*.)

Men

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all *male* scores on that value.

<i>Theoretical</i>	39-49	<i>Social</i>	32-42
<i>Economic</i>	37-48	<i>Political</i>	38-47
<i>Aesthetic</i>	29-41	<i>Religious</i>	32-44

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all *male* scores for that value.

<i>Theoretical</i>	34-54	<i>Social</i>	28-47
<i>Economic</i>	32-53	<i>Political</i>	34-52
<i>Aesthetic</i>	24-47	<i>Religious</i>	26-51

Women

High and low scores. A score on one of the values may be considered definitely high or low if it falls outside the following limits. Such scores exceed the range of 50% of all *female* scores on that value.

<i>Theoretical</i>	31-41	<i>Social</i>	37-47
<i>Economic</i>	33-43	<i>Political</i>	34-42
<i>Aesthetic</i>	37-48	<i>Religious</i>	37-50

Outstandingly high and low scores. A score on one of the values may be considered very distinctive if it is higher or lower than the following limits. Such scores fall outside the range of 82% of all *female* scores for that value.

<i>Theoretical</i>	26-45	<i>Social</i>	33-51
<i>Economic</i>	28-48	<i>Political</i>	29-46
<i>Aesthetic</i>	31-54	<i>Religious</i>	31-56

P O I

PERSONAL ORIENTATION INVENTORY

EVERETT L. SHOSTROM, Ph.D.

DIRECTIONS

This inventory consists of pairs of numbered statements. Read each statement and decide which of the two paired statements most consistently applies to you.

You are to mark your answers on the answer sheet you have. Look at the example of the answer sheet shown at the right. If the first statement of the pair is TRUE or MOSTLY TRUE as applied to you, blacken between the lines in the column headed "a". (See Example Item 1 at right.) If the second statement of the pair is TRUE or MOSTLY TRUE as applied to you, blacken between the lines in the column headed "b". (See Example Item 2 at right.) If neither statement applies to you, or if they refer to something you don't know about, make no answer on the answer sheet. Remember to give YOUR OWN opinion of yourself and do not leave any blank spaces if you can avoid it.

Section of Answer Column Correctly Marked		
	a	b
1.	█	⋮
	a	b
2.	⋮	█

In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Make your marks heavy and black. Erase completely any answer you wish to change. Do not make any marks in this booklet.

Remember, try to make some answer to every statement.

Before you begin the inventory, be sure you put your name, your sex, your age, and the other information called for in the space provided on the answer sheet.

NOW OPEN THE BOOKLET AND START WITH QUESTION 1.

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1. a. I am bound by the principle of fairness.
b. I am not absolutely bound by the principle of fairness.
2. a. When a friend does me a favor, I feel that I must return it.
b. When a friend does me a favor, I do not feel that I must return it.
3. a. I feel I must always tell the truth.
b. I do not always tell the truth.
4. a. No matter how hard I try, my feelings are often hurt.
b. If I manage the situation right, I can avoid being hurt.
5. a. I feel that I must strive for perfection in everything that I undertake.
b. I do not feel that I must strive for perfection in everything that I undertake.
6. a. I often make my decisions spontaneously.
b. I seldom make my decisions spontaneously.
7. a. I am afraid to be myself.
b. I am not afraid to be myself.
8. a. I feel obligated when a stranger does me a favor.
b. I do not feel obligated when a stranger does me a favor.
9. a. I feel that I have a right to expect others to do what I want of them.
b. I do not feel that I have a right to expect others to do what I want of them.
10. a. I live by values which are in agreement with others.
b. I live by values which are primarily based on my own feelings.
11. a. I am concerned with self-improvement at all times.
b. I am not concerned with self-improvement at all times.
12. a. I feel guilty when I am selfish.
b. I don't feel guilty when I am selfish.
13. a. I have no objection to getting angry.
b. Anger is something I try to avoid.
14. a. For me, anything is possible if I believe in myself.
b. I have a lot of natural limitations even though I believe in myself.
15. a. I put others' interests before my own.
b. I do not put others' interests before my own.
16. a. I sometimes feel embarrassed by compliments.
b. I am not embarrassed by compliments.
17. a. I believe it is important to accept others as they are.
b. I believe it is important to understand why others are as they are.
18. a. I can put off until tomorrow what I ought to do today.
b. I don't put off until tomorrow what I ought to do today.
19. a. I can give without requiring the other person to appreciate what I give.
b. I have a right to expect the other person to appreciate what I give.
20. a. My moral values are dictated by society.
b. My moral values are self-determined.
21. a. I do what others expect of me.
b. I feel free to not do what others expect of me.
22. a. I accept my weaknesses.
b. I don't accept my weaknesses.
23. a. In order to grow emotionally, it is necessary to know why I act as I do.
b. In order to grow emotionally, it is not necessary to know why I act as I do.
24. a. Sometimes I am cross when I am not feeling well.
b. I am hardly ever cross.

GO ON TO THE NEXT PAGE

25. a. It is necessary that others approve of what I do.
b. It is not always necessary that others approve of what I do.
26. a. I am afraid of making mistakes.
b. I am not afraid of making mistakes.
27. a. I trust the decisions I make spontaneously.
b. I do not trust the decisions I make spontaneously.
28. a. My feelings of self-worth depend on how much I accomplish.
b. My feelings of self-worth do not depend on how much I accomplish.
29. a. I fear failure.
b. I don't fear failure.
30. a. My moral values are determined, for the most part, by the thoughts, feelings and decisions of others.
b. My moral values are not determined, for the most part, by the thoughts, feelings and decisions of others.
31. a. It is possible to live life in terms of what I want to do.
b. It is not possible to live life in terms of what I want to do.
32. a. I can cope with the ups and downs of life.
b. I cannot cope with the ups and downs of life.
33. a. I believe in saying what I feel in dealing with others.
b. I do not believe in saying what I feel in dealing with others.
34. a. Children should realize that they do not have the same rights and privileges as adults.
b. It is not important to make an issue of rights and privileges.
35. a. I can "stick my neck out" in my relations with others.
b. I avoid "sticking my neck out" in my relations with others.
36. a. I believe the pursuit of self-interest is opposed to interest in others.
b. I believe the pursuit of self-interest is not opposed to interest in others.
37. a. I find that I have rejected many of the moral values I was taught.
b. I have not rejected any of the moral values I was taught.
38. a. I live in terms of my wants, likes, dislikes and values.
b. I do not live in terms of my wants, likes, dislikes and values.
39. a. I trust my ability to size up a situation.
b. I do not trust my ability to size up a situation.
40. a. I believe I have an innate capacity to cope with life.
b. I do not believe I have an innate capacity to cope with life.
41. a. I must justify my actions in the pursuit of my own interests.
b. I need not justify my actions in the pursuit of my own interests.
42. a. I am bothered by fears of being inadequate.
b. I am not bothered by fears of being inadequate.
43. a. I believe that man is essentially good and can be trusted.
b. I believe that man is essentially evil and cannot be trusted.
44. a. I live by the rules and standards of society.
b. I do not always need to live by the rules and standards of society.
45. a. I am bound by my duties and obligations to others.
b. I am not bound by my duties and obligations to others.
46. a. Reasons are needed to justify my feelings.
b. Reasons are not needed to justify my feelings.

47. a. There are times when just being silent is the best way I can express my feelings.
b. I find it difficult to express my feelings by just being silent.
48. a. I often feel it necessary to defend my past actions.
b. I do not feel it necessary to defend my past actions.
49. a. I like everyone I know.
b. I do not like everyone I know.
50. a. Criticism threatens my self-esteem.
b. Criticism does not threaten my self-esteem.
51. a. I believe that knowledge of what is right makes people act right.
b. I do not believe that knowledge of what is right necessarily makes people act right.
52. a. I am afraid to be angry at those I love.
b. I feel free to be angry at those I love.
53. a. My basic responsibility is to be aware of my own needs.
b. My basic responsibility is to be aware of others' needs.
54. a. Impressing others is most important.
b. Expressing myself is most important.
55. a. To feel right, I need always to please others.
b. I can feel right without always having to please others.
56. a. I will risk a friendship in order to say or do what I believe is right.
b. I will not risk a friendship just to say or do what is right.
57. a. I feel bound to keep the promises I make.
b. I do not always feel bound to keep the promises I make.
58. a. I must avoid sorrow at all costs.
b. It is not necessary for me to avoid sorrow.
59. a. I strive always to predict what will happen in the future.
b. I do not feel it necessary always to predict what will happen in the future.
60. a. It is important that others accept my point of view.
b. It is not necessary for others to accept my point of view.
61. a. I only feel free to express warm feelings to my friends.
b. I feel free to express both warm and hostile feelings to my friends.
62. a. There are many times when it is more important to express feelings than to carefully evaluate the situation.
b. There are very few times when it is more important to express feelings than to carefully evaluate the situation.
63. a. I welcome criticism as an opportunity for growth.
b. I do not welcome criticism as an opportunity for growth.
64. a. Appearances are all-important.
b. Appearances are not terribly important.
65. a. I hardly ever gossip.
b. I gossip a little at times.
66. a. I feel free to reveal my weaknesses among friends.
b. I do not feel free to reveal my weaknesses among friends.
67. a. I should always assume responsibility for other people's feelings.
b. I need not always assume responsibility for other people's feelings.
68. a. I feel free to be myself and bear the consequences.
b. I do not feel free to be myself and bear the consequences.

69. a. I already know all I need to know about my feelings.
b. As life goes on, I continue to know more and more about my feelings.
70. a. I hesitate to show my weaknesses among strangers.
b. I do not hesitate to show my weaknesses among strangers.
71. a. I will continue to grow only by setting my sights on a high-level, socially approved goal.
b. I will continue to grow best by being myself.
72. a. I accept inconsistencies within myself.
b. I cannot accept inconsistencies within myself.
73. a. Man is naturally cooperative.
b. Man is naturally antagonistic.
74. a. I don't mind laughing at a dirty joke.
b. I hardly ever laugh at a dirty joke.
75. a. Happiness is a by-product in human relationships.
b. Happiness is an end in human relationships.
76. a. I only feel free to show friendly feelings to strangers.
b. I feel free to show both friendly and unfriendly feelings to strangers.
77. a. I try to be sincere but I sometimes fail.
b. I try to be sincere and I am sincere.
78. a. Self-interest is natural.
b. Self-interest is unnatural.
79. a. A neutral party can measure a happy relationship by observation.
b. A neutral party cannot measure a happy relationship by observation.
80. a. For me, work and play are the same.
b. For me, work and play are opposites.
81. a. Two people will get along best if each concentrates on pleasing the other.
b. Two people can get along best if each person feels free to express himself.
82. a. I have feelings of resentment about things that are past.
b. I do not have feelings of resentment about things that are past.
83. a. I like only masculine men and feminine women.
b. I like men and women who show masculinity as well as femininity.
84. a. I actively attempt to avoid embarrassment whenever I can.
b. I do not actively attempt to avoid embarrassment.
85. a. I blame my parents for a lot of my troubles.
b. I do not blame my parents for my troubles.
86. a. I feel that a person should be silly only at the right time and place.
b. I can be silly when I feel like it.
87. a. People should always repent their wrongdoings.
b. People need not always repent their wrongdoings.
88. a. I worry about the future.
b. I do not worry about the future.
89. a. Kindness and ruthlessness must be opposites.
b. Kindness and ruthlessness need not be opposites.
90. a. I prefer to save good things for future use.
b. I prefer to use good things now.
91. a. People should always control their anger.
b. People should express honestly-felt anger.

92. a. The truly spiritual man is sometimes sensual.
b. The truly spiritual man is never sensual.
93. a. I am able to express my feelings even when they sometimes result in undesirable consequences.
b. I am unable to express my feelings if they are likely to result in undesirable consequences.
94. a. I am often ashamed of some of the emotions that I feel bubbling up within me.
b. I do not feel ashamed of my emotions.
95. a. I have had mysterious or ecstatic experiences.
b. I have never had mysterious or ecstatic experiences.
96. a. I am orthodoxly religious.
b. I am not orthodoxly religious.
97. a. I am completely free of guilt.
b. I am not free of guilt.
98. a. I have a problem in fusing sex and love.
b. I have no problem in fusing sex and love.
99. a. I enjoy detachment and privacy.
b. I do not enjoy detachment and privacy.
100. a. I feel dedicated to my work.
b. I do not feel dedicated to my work.
101. a. I can express affection regardless of whether it is returned.
b. I cannot express affection unless I am sure it will be returned.
102. a. Living for the future is as important as living for the moment.
b. Only living for the moment is important.
103. a. It is better to be yourself.
b. It is better to be popular.
104. a. Wishing and imagining can be bad.
b. Wishing and imagining are always good.
105. a. I spend more time preparing to live.
b. I spend more time actually living.
106. a. I am loved because I give love.
b. I am loved because I am lovable.
107. a. When I really love myself, everybody will love me.
b. When I really love myself, there will still be those who won't love me.
108. a. I can let other people control me.
b. I can let other people control me if I am sure they will not continue to control me.
109. a. As they are, people sometimes annoy me.
b. As they are, people do not annoy me.
110. a. Living for the future gives my life its primary meaning.
b. Only when living for the future ties into living for the present does my life have meaning.
111. a. I follow diligently the motto, "Don't waste your time."
b. I do not feel bound by the motto, "Don't waste your time."
112. a. What I have been in the past dictates the kind of person I will be.
b. What I have been in the past does not necessarily dictate the kind of person I will be.
113. a. It is important to me how I live in the here and now.
b. It is of little importance to me how I live in the here and now.
114. a. I have had an experience where life seemed just perfect.
b. I have never had an experience where life seemed just perfect.
115. a. Evil is the result of frustration in trying to be good.
b. Evil is an intrinsic part of human nature which fights good.

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116. a. A person can completely change his essential nature.
b. A person can never change his essential nature.
117. a. I am afraid to be tender.
b. I am not afraid to be tender.
118. a. I am assertive and affirming.
b. I am not assertive and affirming.
119. a. Women should be trusting and yielding.
b. Women should not be trusting and yielding.
120. a. I see myself as others see me.
b. I do not see myself as others see me.
121. a. It is a good idea to think about your greatest potential.
b. A person who thinks about his greatest potential gets conceited.
122. a. Men should be assertive and affirming.
b. Men should not be assertive and affirming.
123. a. I am able to risk being myself.
b. I am not able to risk being myself.
124. a. I feel the need to be doing something significant all of the time.
b. I do not feel the need to be doing something significant all of the time.
125. a. I suffer from memories.
b. I do not suffer from memories.
126. a. Men and women must be both yielding and assertive.
b. Men and women must not be both yielding and assertive.
127. a. I like to participate actively in intense discussions.
b. I do not like to participate actively in intense discussions.
128. a. I am self-sufficient.
b. I am not self-sufficient.
129. a. I like to withdraw from others for extended periods of time.
b. I do not like to withdraw from others for extended periods of time.
130. a. I always play fair.
b. Sometimes I cheat a little.
131. a. Sometimes I feel so angry I want to destroy or hurt others.
b. I never feel so angry that I want to destroy or hurt others.
132. a. I feel certain and secure in my relationships with others.
b. I feel uncertain and insecure in my relationships with others.
133. a. I like to withdraw temporarily from others.
b. I do not like to withdraw temporarily from others.
134. a. I can accept my mistakes.
b. I cannot accept my mistakes.
135. a. I find some people who are stupid and uninteresting.
b. I never find any people who are stupid and uninteresting.
136. a. I regret my past.
b. I do not regret my past.
137. a. Being myself is helpful to others.
b. Just being myself is not helpful to others.
138. a. I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss.
b. I have not had moments of intense happiness when I felt like I was experiencing a kind of bliss.

139. a. People have an instinct for evil.
b. People do not have an instinct for evil.
140. a. For me, the future usually seems hopeful.
b. For me, the future often seems hopeless.
141. a. People are both good and evil.
b. People are not both good and evil.
142. a. My past is a stepping stone for the future.
b. My past is a handicap to my future.
143. a. "Killing time" is a problem for me.
b. "Killing time" is not a problem for me.
144. a. For me, past, present and future is in meaningful continuity.
b. For me, the present is an island, unrelated to the past and future.
145. a. My hope for the future depends on having friends.
b. My hope for the future does not depend on having friends.
146. a. I can like people without having to approve of them.
b. I cannot like people unless I also approve of them.
147. a. People are basically good.
b. People are not basically good.
148. a. Honesty is always the best policy.
b. There are times when honesty is not the best policy.
149. a. I can feel comfortable with less than a perfect performance.
b. I feel uncomfortable with anything less than a perfect performance.
150. a. I can overcome any obstacles as long as I believe in myself.
b. I cannot overcome every obstacle even if I believe in myself.