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Construct Validity of the Slip: Measuring Moral Maturity Based on Jungian Typology

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**CONSTRUCT VALIDITY OF THE SLIP:
MEASURING MORAL MATURITY BASED ON JUNGIAN TYPOLOGY**

by

Holly O. Houston

**A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy**

October

1988

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VITA

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CHAPTER I

INTRODUCTION

The existing personality inventories measuring Jungian typology (The Myers-Briggs Type Indicator and the Jungian Type Survey) do not adequately incorporate a salient assumption of Jung's (1921,1971) theory, the assumption of bipolarity. The bipolarity assumption posits that the two opposing attitudes (introversion/extroversion) and the two opposing pairs of functions (thinking/feeling and sensation/intuition) are mutually exclusive. Therefore, the dominant characteristics in each pair will have attained a higher degree of consciousness while the other is, because of the bipolar psychic structure of the pairings, less conscious or unconscious. Jung maintains that it is possible for the less conscious contents and functions to come to greater awareness. Thus people can learn to use attitudes and functions other than dominant ones. Even the least developed among the pairs can reach a high degree of differentiation in some individuals. However, while one polar cognitive mode is being utilized, its polar opposite cannot be used at the same time. The forced-choice construction of the Myers-Briggs and The Jungian Type Survey do not allow for the measurement of this possible well

differentiated development of the inferior attitudes/functions (Loomis and Singer, 1980). For instance, under forced-choice conditions, the individual must choose between either an endorsement for thinking or one for feeling. The eventual profile may indicate that the dominant mode is thinking and the inferior mode is feeling whereas these inventories do not provide the opportunity to measure the relative development of the polar opposite, in this case feeling. Thus, the feeling mode may artificially appear to be the least developed.

The Singer-Loomis Inventory of Personality (SLIP) is designed to assess varying degrees of individuation by measuring each mode independently, thus eliminating the forced-choice construction of Jungian personality measures of the past (Loomis and Singer, 1982). This inventory, which is in its third experimental edition, is fairly young in its development and requires further empirical testing. The primary aim of this study is to perform a construct validity study on the SLIP by assessing its ability to differentiate levels of moral maturity based on personality type.

The authors of the SLIP have conducted construct validity studies on the first two versions. Utilizing the first version, Loomis (1982) found that ,of the 51 professional artists and 37 psychotherapists tested, 25% did

not have an inferior function that was the hypothesized opposite of their superior one. This finding gave support to the independent measurement of the individual scales. Using the second version, Singer and Loomis (1984) conducted analyses on a sample of 1188 yielding four factors which gave indirect support for the construct validity of the four functions. The authors do not report construct validity studies which utilize the current, third version.

A review of the literature reveals two studies that have investigated the relationship between Jungian typology and moral maturity. Both studies utilized the Myers-Briggs Type Indicator. Handel (1977) found that introverted men and specifically, introverted men dominated by either of the rational functions, achieved higher moral maturity scores than other types. There were no women in Handel's sample. Guertin (1986) found that there were more intuitives and thinkers in her all female sample. This study will also examine the influence of sex differences on typology and moral maturity.

Gilligan (1982) has argued that because of differing developmental processes, males and females approach moral decision-making differently. Her studies revealed that men make moral decisions based on an ethic of justice which focuses on individual rights. This is characterized by formal logic and conceptualized in terms of separateness and

objectivity. Women, on the other hand, make moral decisions based on an ethic of care which focuses on the welfare and concern for others. This is characterized by contextual reasoning and conceptualized in terms of connectedness to others. Gilligan criticizes Kohlberg's (1969) theory which does not include the feminine notions of responsibility and care.

Gilligan's claims have received support by Carlson (1971) who found that, in terms of personality functioning, men are more oriented toward separation and women are more oriented toward connectedness. Lyons (1983) was able to find empirical evidence of the greater use of a care ethic among women and a justice ethic among men. Both researchers note considerable overlap between individuals. Others (Friedman, Robinson and Friedman, 1987; Rest, 1976; Walker, 1984) found only negligible sex differences in moral reasoning. All, however, address the need for further research in this area to help clarify seemingly opposing findings.

Therefore, an additional aim of this study is to assess overall sex differences (temperamental characteristics and abilities) in terms of Jungian typology and moral maturity. To date, there is no published study known to this researcher that examines sex differences in both typology and moral maturity. It is hoped that this research will

lend further validation to the SLIP as well as to provide further evidence of the influence of sex role differentiation on moral reasoning.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Jung's Typology

In his work, Psychological Types (1921), Jung conceptualized a theory of personality around the notion that we are born with the ability to interact with our environments in a variety of ways. The processes by which people come to know themselves, others and the world around them were referred to by Jung as "types" and have since been parsimoniously relabeled by Singer and Loomis (1984) as "cognitive modes". According to Jung's theory, differences among human beings can be seen quite early developmentally as some babies are more active than others, appearing to be very attuned to their surroundings. Others may behave as though they were in touch with their inner worlds through the enjoyment and satisfaction of feelings and sensations.

The development of cognitive modes results from a reciprocal and interactive process between the environment and the self. As such, their development may occur at unequal rates due to the influence of parents and educators who stimulate and reinforce behaviors stemming from some modes and not others. Also, previous learning influences the development of cognitive modes. To the extent that

individuals are unaware that cognitive modes exist, they may assume that other people comprehend in much the same way as they do. Therefore, an understanding of cognitive styles (how the modes work in relation to each other) is essential for both self-awareness and the appreciation of individual differences (Singer and Loomis, 1984).

Defined more specifically, cognitive modes are combinations of attitude types (orientations) and functions. An attitude type refers to the prevailing direction of energy used by the individual. The attitudes described by Jung are introversion and extroversion.

Introversion refers to the orientation toward one's inner subjective experience. For introverts, their own private realms carry more importance than the world and its events. Introverts tend to withdraw and value the physical world to the extent that it supports their inner position. The natural flow of psychic energy is inward from the physical world toward the individual.

Extroversion refers to the orientation directed toward the objective physical world. To extroverts, the physical world is valued more highly than the inner world and they find adaptation to others easy. The natural flow of psychic energy is outward, from the individual toward the external world.

Jung also described four functions. Two of the functions, sensation and intuition, receive information. The other two functions, thinking and feeling, process information. The functions are not isolated, but work together in a variety of ways thus defining the variance of individual experiences.

Both the sensation and intuitive functions are called perceptual or nonrational functions. When a person is utilizing these functions, perceptions are not restricted or organized. Sensing and intuiting processes allow the individual to accept the world as it appears by registering what is seen, experienced or imagined. Sensation is perception by means of the senses. It enables one to receive immediate recordings of sights, sounds, smells, tastes and touch impressions. Intuition is perception via the unconscious. This function enables the person to integrate information received subliminally either from the physical world or the inner subjective realm. Intuitive processing allows the individual to form an idea or vision of what may be possible.

The two functions that enable the processing of information, thinking and feeling, are called judging functions. They allow the individual to organize and systemitize information received by the perceptual functions

(sensation and intuition). Both thinking and feeling are rational functions that enable one to comprehend meaning and make evaluations.

Thinking is the processing function by which one reaches decisions logically by weighing the pros and cons. As the problem-solving function, thinking allows one to examine cause and effect relationships. Feeling is the processing function that enables one to organize and judge in accordance with personal values. When a person is utilizing the feeling function, decisions are made quickly through a one-step process that measures an idea, person or event against a standard of values (Singer and Loomis, 1984).

Jung's theory of psychological types is based on the notion that the orientations (introversion and extroversion) and the function pairs (sensation/intuition and thinking/feeling) are bipolar in nature. That is, extroversion and introversion are described as mutually exclusive as are sensation and intuition and thinking and feeling. The bipolar dimensions are mutually exclusive in that they can not be utilized simultaneously, but can be used concurrently. For instance, one cannot utilize the modes of thinking and feeling at the same time, but one can process information through one and then through the other. This assumed opposition provided the rationale for the

formulation of The Myers-Briggs and The Jungian Type Survey (formerly known as The Gray-Wheelwright Test), both of which purport to measure Jung's typology in accordance with Jung's theory. However, Jung's theory also holds that through the process of individuation, the unconscious or less conscious contents and functions of the psyche can be brought up to a level of greater awareness. Thus, an eventual union or transcendence (individuation) of the polar opposites is possible. For instance, a person may develop the capacity to use thinking and feeling in a highly differentiated manner.

The Myers-Briggs Type Indicator and The Jungian Type Survey both have a forced-choice constructional format such that if you endorse a thinking response, you automatically exclude the corresponding feeling response. This fails to incorporate the bipolarity assumption by making it impossible to measure the occurrence of the transcendence of polar opposites (Singer and Loomis, 1980).

The Singer-Loomis Inventory of Personality

Loomis (1982) responded to the need to develop a new method of assessing Jung's typological theory through the development of the Singer Loomis Inventory of Personality (SLIP). The SLIP measures the relative development of the eight basic modes within the individual. It utilizes scaled response items that measure each of the modes independently.

Test results on the first version showed that 25% of the 51 professional artists and 37 psychotherapists studied had inferior or less conscious functions that were not the hypothesized opposites of the superior or most operative ones. Thus initial experimentation lent empirical support to the SLIP's construct validity.

There are several reliability and validity studies performed on the SLIP, most of which have utilized the two earlier versions. The current edition of the SLIP is the third experimental edition.

In the manual for the current edition, Singer and Loomis (1984) reported coefficient alpha reliabilities on the second version of the SLIP. The statistics are based on a sample total of 1188 almost exclusively white subjects of whom 40% were male, 60% were female and over half of whom had graduate training. The authors felt that the reliabilities computed from this nontypical sample would be fairly close to reliabilities calculated from a more balanced population. The reliability coefficients for the eight cognitive modes ranged from a low of .56 for introverted feeling to a high of .71 for extroverted sensation. The reliability coefficients for the four functions were .73 for feeling, .76 for intuition and .80 for both thinking and sensation. The average coefficient

was .77. Introversion yielded a reliability coefficient of .85 and extroversion yielded a reliability of .88. Judging and perceiving reliabilities were .86 and .85 respectively.

With regard to the validity of the SLIP, several studies have been conducted. Construct validity of the SLIP was performed on the second version utilizing the subject sample noted above. The data was examined by several factor analyses. Using the Alberta General Factor Analysis Program, both total and split halves analyses were done. The authors also performed a principal components factor analysis. The results, which were virtually the same for both, yielded four factors. Two were rational judging factors labeled judging (reflective) accounting for 7.7% of the variance and judging (active) which accounted for 6.98% of the variance. The other two factors were non-rational, perceptual factors labeled perceptual, which accounted for 6.86% of the variance and perceptual (active) which accounted for 4.73% of the variance. Singer and Loomis (1984) conclude that the emerging four factors give indirect support for the construct validity of the four functions. A current debate in the literature questions the equivocality of factorial validity and construct validity. However, Singer and Loomis feel that the four emergent factors, which correspond to the four functions originally theorized by Jung, was sufficient for the purposes of empirical validity.

Finally criterion validity was also assessed by Loomis (1980) using the first version of the SLIP. Mean factor scores computed for the artist and psychotherapist sample indicated that psychotherapists had significantly higher scores than artists for extroverted thinking, introverted intuition and extroverted intuition. Loomis noted that the high intuition score for psychotherapists was expected given the importance of intuition for this work.

The predictive ability of the SLIP was examined by Loomis and Saltz (1984) also using the original version of the SLIP. The relationship between cognitive styles and artistic styles was assessed by mean factor scores on the SLIP scales. Artistic styles, defined by mean cluster analysis of the descriptions of eight twentieth century artists, were determined by comparing self-descriptions of their art with descriptions of the artist-exemplar. Two dimensions defining artistic style emerged. The first dimension concerned the orientation of the painter to the content of the picture and was labeled figurative (representational) art versus nonfigurative (abstract) art. The second dimension concerned the elements and the composition of the painting, that is whether or not the elements and their arrangements conformed to collective expectation. This dimension was labeled rational (descriptive) versus unpredictable (narrative).

Loomis and Saltz reported four significant results: 1) as expected, extroverted artists produced figurative, representational art; 2) introverted artists produced nonfigurative, abstract art; 3) art that incorporated recognizable elements and art that was arranged in conformance to rational expectation was likely to be produced by artists whose cognitive styles were dominated by a judging, organizing function; 4) art which incorporated unusual elements and art which was arranged unpredictably was likely to be created by artists whose cognitive styles were dominated by a perceptual function. The researchers concluded that this study supports the validity of the introversion and extroversion scales. In addition, it lends support to the SLIP's assessment of the judgment functions (thinking and feeling) and the perceptual functions (sensation and intuition).

Singer and Loomis (1984) also reported frequencies for high and low cognitive modes based on the profiles of 2026 subjects who were diverse in terms of age and educational background. In the overall population, introverted intuition, introverted feeling and extroverted thinking were in a three-way tie for the most highly developed cognitive mode in this sample. Of the least developed cognitive modes, extroverted sensation was clearly the most common poorly developed cognitive mode followed by extroverted intuition.

Loomis (personal communication, 1985) stated that extroverted sensation is more often than chance found to be the least developed cognitive mode and acknowledged that this scale was in need of revision.

Distribution of cognitives mode by sex shows that for women, the three highest cognitive modes are extroverted thinking (20.2%), introverted intuition (19.5%), and introverted feeling (18.9%). For men, the three highest cognitive modes are introverted feeling (18.8%), introverted intuition (16.3%) and extroverted thinking (16.3%). Thus, the most highly developed modes are the same for both sexes with a small difference in rank ordering. The rank ordering of the least developed cognitive modes are identical for both men and women and are extroverted sensation, extroverted intuition and introverted thinking.

In summary, Singer and Loomis have developed the Singer-Loomis Inventory of Personality which measures Jungian typology. The SLIP attempts to fully incorporate the assumption of bipolarity by allowing for the independent measurement of the eight cognitive modes. In this way, modes other than dominant ones will not be artificially depressed by a forced-choice (either/or) construction. It also enables the measurement of several global scales including introversion, extroversion, perception and judging. The current version of the SLIP is an experimental

one requiring further validation. The present study will examine the ability of the SLIP to predict moral development based on its measurement of the various cognitive modes.

Kohlberg's Theory of Moral Development

The Kohlbergian theory of moral development is based on the work done by Piaget (1932) who first provided a way to study subjective values in their own right. Piaget attempted to explain why a subject values certain things from that person's point of view. Based on interviews of children about many kinds of moral situations, he found that they had definite ideas about moral right and wrong and that their notions were drastically different from those of adults. He characterized the difference between child and adult points of view by postulating different underlying cognitive organizations, each with its particular logic and way of interpreting experience. As such, his theory is a cognitive-developmental model with the following basic tenets : a) a person's perception of reality is cognitively structured; b) as cognitive structures evolve, there is a developmental progression by which earlier cognitions are elaborated to accommodate greater complexity in experience.

Kohlberg's 1958 dissertation represents an elaboration of Piaget's theory in which he expanded upon the cognitive-developmental model. Like Piaget, he postulated that humans construe meanings to make sense of experiences.

The constructions provide structure by forming general categories of meanings into which new experiences are assimilated. This construing provides the basis by which we are able to form expectations about what is likely to happen (the ability to anticipate). When new experiences can't be assimilated or when expectations are violated, we attempt to revise our categories and expectations. Therefore, a change in one's cognitions comes from experiences that do not fit one's earlier and simpler notions.

Kohlberg continued to refine his theory which eventually developed into a constructivist paradigm (Kohlberg, 1977). That is, cognitive comprehension is an active process by which individuals build on simpler notions and incorporate new and more complex information thus forming an expanding network of cognitive construction. Analysis of longitudinal and cross-cultural data led him to posit that moral reasoning develops over time through a series of six stages. The stage-concept theory refers to the structure of one's reasoning. Stages are seen as "structured wholes" or "organized systems of thought" (Kohlberg and Hersh, 1977). The stages form an invariant sequence that is universal across cultures. Kohlberg states that movement is always forward except under extreme circumstances or trauma. The stages are also described as hierarchical integrations such that thinking at a higher stage incorporates within it lower

stage thinking. Finally, Kohlberg notes a tendency among people to choose a stage or system of reasoning higher than one's own.

Kohlberg (1969, pp.376) describes the moral stages as follows:

I. Preconventional Level - At this level the child is responsive to cultural rules and labels of good and bad, right or wrong but interprets these labels either in terms of the consequence of action (punishment, reward, exchange of favors) or in terms of the physical power of those who enunciate the rules and labels.

Stage 1: Punishment and Obedience Orientation - The physical consequences of action determine its goodness or badness, regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right - not in terms of respect for an underlying moral order supported by punishment and authority.

Stage 2: The Instrumental-Relativist Orientation - Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Reciprocity is in terms of "you scratch my back and I'll scratch your's" and not of loyalty, gratitude or justice.

II. Conventional Level - At this level, maintaining the expectation of the individual's family, group or nation is perceived as valuable in its own right, regardless of the immediate and obvious consequences. The attitude is of conformity and of loyalty to it through identifying with the persons or group involved in it.

Stage 3: The Interpersonal Concordance or "Good Boy - Nice Girl" Orientation - Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or natural behavior. One earns much approval by being nice.

Stage 4: The Law and Order Orientation - There is an orientation toward authority, fixed rules and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority and maintaining the given social order for its own sake.

III. Post-Conventional or Principled Level:
At this level, there is a clear effort to define moral values and principles that have validity and application apart from the authority of the groups or persons holding these principles and apart from the individual's own identification with these groups.

Stage 5: The Social-Contract, Legalistic Orientation - Right action tends to be defined in terms of general individual rights and standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. The result is an emphasis upon the possibility of changing law in terms of rational considerations of social utility.

Stage 6: The Universal-Ethical Principle Orientation - Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality and consistency. At heart, these are universal principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons.

Kohlberg (1969) states that the necessary prerequisites for moral development include role-taking opportunities in human attachments, the structuring of external reality to allow it to interact with one's mental structure, and the existence of situations in the real world to create inner conflicts which thereby encourage the development from one stage to another.

The special kinds of role-taking experiences conducive to development in moral thinking are social experiences in which a person takes the point of view of another (e.g. discussions between parents and children about the reasons for moral rules, moral debates, or assuming a job in which one must think about the concern's of one's colleagues or subordinates). The greater role-taking opportunities lead to the formulation of more and more elaborate ways of coordinating human interests and thus to more developed conceptions of justice. The main function of role-taking is to create an inner conflict, or an inability to solve existing moral problems utilizing the cognitive structure of one's current stage. The moral question becomes "whose role do I take?", "Whose claim do I favor?". The ensuing conflict presents a lack of equilibrium within one's psyche, the resolution of which enables the individual to advance through the stages.

Typology and Moral Development

Handel (1977) provided the first known empirical investigation of moral maturity and Jungian typology. He argued, in alignment with Kohlberg, that advancement through the stages necessitates the capacity to go beyond the mere imitation of another's morality and allow one's own natural developmental patterns to emerge. Handel further posited that these capacities correlate positively with one's personality type.

Specifically, Handel argued that the introvert, who is more attuned to his/her inner psyche, can more readily experience the necessary conflict than can the extrovert. This individual can benefit more from role-taking involvements because he/she is more capable of intra-psyche restructuring and less dependent upon external values. Introverts rely on internal values and should advance more easily beyond the conventional stage. Handel noted that prior to the principled level of moral development, stages 5 and 6, advancement mandates the capacity to remove oneself from egoistic concerns to concern for the other and eventually with authority and society. The extrovert is more subject to this advancement. However, the principled level of moral maturity requires the recognition of inner, universal principles of justice to which the introvert is more subject.

Handel cautioned that while the extrovert appears more open to human attachments and role-taking experiences, this does not indicate that he/she will advance more readily because of such experiences. Involvement in social relations is not sufficient for structural moral change. The introvert also needs and relates to others, albeit with a sense of distance. The distance, Handel asserted, is due to the introvert's characteristic nature of searching and introspection which is very useful in moral development.

In his study, Handel also hypothesized that in addition to introverts, individuals for whom the judgment or rational functions are dominant will be more advanced in moral development in comparison to those for whom perceptual functions are dominant. Specifically, of the judgment functions, the thinking function should be the most advantageous in regard to moral judgment because of the capacity to reach decisions through logical step-by-step deliberations. Though the feeling function is also a rational function, feeling decisions are made quickly through a one-step process measured against a standard of values. Thus, the more complex and subtle issues necessary for higher levels of moral decision making may be overlooked.

Finally, Handel theorized that the introverted thinker, who is likely to begin problem-solving from a subjective position based on an inner conviction, will be most able to judge and problem-solve conflicts and advance to the next logical step. Hence, the introverted thinker is more likely than other types to advance to higher levels of moral maturity.

Handel examined the relationship between Jungian typology and moral-cognitive development on a sample of 61 White male high school and college students between the ages of 14-20 from Yeshiva University and High School. Utilizing the Myers-Briggs Type Indicator and Kohlberg's Moral Judgment Interview, Handel hypothesized that (1) introverts will achieve higher stages of moral-cognitive development than extroverts, and (2) introverted thinking types will achieve higher moral-cognitive levels than any of the other types.

The results substantiated the first hypothesis, showing that introverts achieved higher moral maturity scores than extroverts. The second hypothesis was not validated. Instead, the results showed that introverts dominated by either judgment function achieved higher scores than introverts dominated by the perceptual functions, but there were no significant differences between the thinking and feeling introvert. Handel discussed as a possible reason

for this lack of statistical differentiation as due to the fact that the sample population had not advanced beyond stage 3. Therefore, the cognitive stratification in higher levels of moral development could not be examined.

Guertin (1986) also conducted a study to examine the relationship between Jung's typology and Kohlberg's theory of moral development in an attempt to extend the unidimensionality of Kohlbergian theory. A sample of 43 military wives and 44 civilian women were given the Myers-Briggs Type Inventory and the Defining Issues Test. She found that there were significantly more introverts and feeling types in the military women's group while there were significantly more intuitives and thinking types in the civilian women's group. In addition, the civilian women scored twice as frequently in the highest level of principled moral judgment. Guertin suggested that this could reflect a greater autonomy in decision-making or possibly the influence of male values found in the work place since the majority of non-civilian woman worked whereas the majority of the military wives did not. Guertin concluded that the environment plays a key role in personality and moral development noting that some women are socialized into developing what society considers to be stereotypically

feminine roles (e.g., nurturing, caring). Further, such a socialization process may result in the suppression of other personality characteristics that facilitate individuation.

As noted previously, the use of the Myers-Briggs Type Indicator as an accurate measure of Jungian typology has been questioned by Singer and Loomis (1980) because its constructional format renders it likely to violate Jung's assumption of bipolarity. Criticism has also been levied against Kohlberg's six-stage theory by Gilligan (1982) who noted sex differences in moral orientation based on developmental differences in the way men and women are socialized. Gilligan's assertions will be considered in full in the next section.

Sex Differences in Moral Orientation

Gilligan (1982) asserted that men and women are socialized differently, leading to markedly different moral orientations. Male social development highlights a growing sense of individuality while female development stresses connectedness between individuals. Thus, female morality is based on an ethic of care and male morality is based on an ethic of justice. According to Kohlberg's theory, women's judgments seem to implicate the third stage of moral development where morality is conceived of in interpersonal terms. Gilligan stated that Kohlberg considered this conception of interpersonal "goodness" (caring for and being

sensitive to the needs of others) to be functional in the lives of mature women to the extent that their lives take place inside the home. Further, Kohlberg implied that women realize the inadequacy of this moral perspective and advance to higher stages (4,5 and 6) once they leave the home and enter the traditional male arena. Thus, paradoxically, the same traits that society often values in women also marks them as deficient in moral development when assessed under justice-defined measures. Kohlberg's measure of moral judgment places more importance on the male - oriented concerns of rights and justice than on the female concerns for welfare, caring and responsibility. Gilligan stated that Kohlberg's emphasis is due, in part, to the fact that Kohlberg is a man, he used only men in his dissertation and longitudinal samples, and used male protagonists in his hypothetical dilemmas.

Gilligan conducted several studies to examine the moral development and perception of women. In the Abortion study (Gilligan and Belenky, 1980) 29 women ranging in age from 15-23, diverse in ethnic background and social class served as subjects. This study was designed to clarify the ways in which women construct and resolve abortion decisions. All were referred to the study by abortion and counseling services. The women were interviewed twice, first at the time they were making the decision (in the first trimester

of a confirmed pregnancy), and then at the end of the following year. In the first part of the interview, the women were asked to discuss the decision they faced. In the second, they were asked to solve three hypothetical dilemmas from Kohlberg's (1975, cited in Gilligan, 1982) research.

Analysis of the interview data suggested that women impose a distinctive construction on moral problems, seeing moral dilemmas in terms of conflicting responsibilities. Women's construction of moral problems is one of care and responsibility in relationships, as opposed to rights and rules inherent in Kohlberg's scheme of morality. Women's construction of morality was traced through a sequence of three evolving perspectives, each representing a more complex comprehension of the relationship between self and other. The sequence of women's moral concern proceeds from an initial concern with survival, to a focus on "goodness" (care and concern for the welfare of others), and finally to a reflective understanding of care as the most adequate guide to the resolution of conflict in human relationships.

In the College Student study (Pollak and Gilligan, 1982), the images of violence in stories written by college students to TAT pictures were examined. The authors analyzed the stories of 88 males and 50 females who were enrolled in a psychology course on motivation. Of the six pictures comprising the test, four were chosen for the

purposes of analysis since they provided clear illustration of achievement (two cards) and affiliation (two cards). The study was based on gender comparisons between the stories written about the two sets of pictures.

The results showed that the men in the class projected more violence into situations of personal affiliation than they did into impersonal situations of achievement. Twenty-five percent wrote violent stories (the themes included homicide, suicide, stabbing, kidnap and rape) only to pictures of affiliation, nineteen percent to pictures of both affiliation and achievement and seven percent to pictures of achievement. The women, by contrast, saw increased violence in impersonal situations of achievement. Sixteen percent of the women wrote violent stories to achievement pictures and six percent to pictures of affiliation. The findings suggest that men see violence or danger in affiliative situations and construe it to derive from intimacy. Women see danger in impersonal achievement situations and construe danger to result from competitive success or separation.

The Rights and Responsibilities study involved a sample of males and females matched for age, intelligence, education, occupation and social class at nine points across the life-span: ages 6-9, 11, 15, 19, 22, 25-27, 35, 45, and 60, forming a total sample of 144 (eight males and females

at each age level). Interview data was collected on conceptions of self and morality, experiences of moral conflict and choice, and judgments of hypothetical moral dilemmas. The findings indicated that women's construction of moral problems, with the developmental emphasis of an expanding network of connection and attachment to others, is not adequately assessed by the Kohlberg system. Thus, women's reliance upon contextual (consideration of situational factors and relationship attachments) rather than formal logic often makes them appear naive and cognitively immature (Gilligan, 1982).

Gilligan's studies of the moral development and perception of women reveals a moral conception different than the one described by Kohlberg. Kohlberg regards all constructions of responsibility as evidence of a conventional (stage 3 and 4) moral understanding, and defines the highest stages of moral development as deriving from a reflective understanding of human rights. In this conception, the moral problem arises from competing rights rather than conflicting responsibility and requires for its resolution a mode of thinking that is formal and abstract rather than contextual and narrative. The morality of rights emphasizes separation rather than connection in that the individual, as opposed to the relationship, is seen as primary. Gilligan describes the psychology of women as

having a greater orientation toward relationships and interdependence. This implies a more contextual mode of judgment, thus a different point of view based on an ordering of human experiences with different priorities.

The literature shows several studies in support of Gilligan's ideas. Carlson (1971) conducted a series of studies assessing gender differences in personality functioning. In his first study, Carlson asked a sample of 37 male and 39 female college students to perform several tasks designed to assess their representations of self, other and experience of physical space and time. Subjects were asked to complete an adjective checklist and Kelly's Role Construct Repetory Test (self-representation), write a brief personality sketch of someone they know well (representation of other), write a description of the physical environment of their childhood milieu (representation of physical space), and to describe the type of person they expected to be in 15 years and what they expected to be doing (representation of time). His results indicated that males tend to represent experiences of self, others, space and time in individualistic, objective and distant ways while females represent the same experiences in relatively interpersonal, subjective ways. Carlson concluded that men

tend to differentiate themselves from their environments while women experience themselves as intrinsically connected to both their environments and others.

In his second study, Carlson also asked the college student sample to describe critical experiences of seven affects. The positive affects included joy, excitement and surprise. The negative affects included shame, fear, anger and disgust. He found that a larger proportion of males described incidents involving the themes of achievement, separateness, aggression and sexuality, with sexuality being reported as a drive or conquest. A greater proportion of females reported experiences of social acceptance, togetherness, receptivity, dependence, altruism, and sexuality, with sexuality reported as a sense of belonging. Both of these studies support Gilligan's notions about masculine and feminine personality functioning. That is, women are more oriented toward connection to others while men have a greater orientation to separateness.

Carlson interpreted the differences in personality functioning in terms of Bakan's (1966) formulation of agency and communion. Bakan coined the word "agentic" to denote behaviors he believed to be more common in men. He defined agency as the modality of separation which is manifested in self-protection, self-assertion, self-expansion and the urge to master. Agentic interpersonal styles are characterized

by objectivity, competitiveness, exclusion and distance. Bakan's coined word "communal" denoted behaviors he believed to be more common in women. He defined the modality of non-separation involving contact, openness and union with others. Communal interpersonal styles are subjective, cooperative, accepting and close.

In regard to his own research, Carlson noted distinct patterns of agency and communion evidenced in subject's perceptions of themselves, others and their worlds. His results indicated that communion was more characteristic of females as a group and agency was more characteristic of males as a group. However, there was considerable overlap between the sexes, indicating that the relationship between sex and modality (agency and communion) was not necessarily true for a given individual.

It is interesting to note that Jung (1953, 1959) also addressed sex differences in personality functioning. Like Gilligan and Bakan, Jung saw the need for separation from others as a masculine need and the need for attachment to others as a feminine one. Further, he discussed the potential to learn to integrate masculine and feminine needs, in the process of individuation usually occurring in midlife, such that persons achieving this type of psychological development could fulfill both separation and

attachment needs. This notion appears to be related to Carlson's finding of significant overlap between the male and female groups.

Several other hypotheses derived from Gilligan's theory have been tested by Lyons (1983). She studied a group of 36 people consisting of two males and two females at each of the following ages: 8, 11, 14-15, 19-22, 27, 36, 45, and 60 or more years. The subjects were given a semi-structured interview designed to assess how individuals construct their experiences of self in the moral domain. The data was analyzed with regard to moral orientation (care or justice), mode of self-definition (separate or connected) and the correlation between self-definition and moral orientation. Lyons' results supported Gilligan's hypothesis that there are two different orientations (care and justice) toward morality and that these orientations are not mutually exclusive, although individuals tend to use one mode predominantly.

In addition, Lyons investigated sex differences in both self-definition and understandings of relationships as a function of moral orientation. She found that women more often characterize themselves and their relationships to others in terms of connection while men characterize themselves in terms of a separate/objective self. With regard to moral orientation, she found that females more

frequently evidenced a care ethic and men a justice ethic. Regardless of sex, however, individuals characterizing themselves predominantly in connected terms most frequently used a care and responsibility orientation, while those individuals characterizing themselves in separate/objective terms used a rights and justice orientation.

Other researchers have failed to find empirical support for Gilligan's claim of the differential qualities of male and female moral judgments. Most recently Friedman, Robinson and Friedman (1987) gave the Personal Attributes Questionnaire (PAQ; a measure of sex-role orientation) and an adaptation of the Defining Issues Test (DIT) to 47 men and 54 women enrolled in an introductory psychology course. The DIT was adapted such that all four dilemmas were taken directly from the instrument, but the wording of the fourth was changed to correspond to the Kohlberg Interview format. The instructions used were those normally used with the DIT. The 12 issues that are rated for their importance were also adapted so that six were based on Gilligan's descriptions of women's moral reasoning and six were based on Kohlberg et. al.'s (1978, cited in Friedman et. al.). The six items derived from Gilligan's descriptions (G-scale items) are as follows: considering the actual consequences of people involved; considering the effects on specific relationships; considering the particular context and/or the nature of the

people involved; considering the obligation to exercise care in relationships; and considering the obligation to avoid hurt. The six derived from the Kohlberg manual (K-scale items) were generated from the following aspects: considering whether there is a moral principle at stake to which all individuals should adhere; considering whether there is a rational standard that applies to the situation; considering that some values are more fundamental than others; considering that certain human rights are more fundamental than the law; considering the rights of the individuals involved; and considering the right of the individual to make autonomous value decisions.

The results showed no reliable differences between men and women on either of the types of moral reasoning. In fact on analyses of individual test items, several were in the direction inconsistent with Gilligan's theory. That is, some women scored higher than men using the justice orientation while some men scored higher than women using the care orientation, though these trends were not significant. Men and women also showed highly similar patterns in rating the importance of individual items in each dilemma. The PAQ also failed to produce significant group effects on moral judgments. However, correlational measures indicated some convergent and divergent validity of the Gilligan based (G-scale) items, many of which were given

considerable importance in ratings. The authors suggest that these findings provide preliminary evidence for the existence of a moral orientation that is different from Kohlberg's, thus justifying more research on care-based judgments.

Friedman et. al. reported several considerations that may have limited their testing of Gilligan's theory. One possible limitation is the use of a rating measure rather than a production measure. Gilligan's original research used spontaneous productions. Rating methods, which assess comprehension and preference, may lead to different patterns of results. Gilligan also stated that sex-differences may go undetected using traditional moral dilemmas. She suggested that a more accurate assessment of women's morality be made using "real life dilemmas of empathic moral concern" (Gilligan 1982, p. 70).

Walker (1984) conducted a comprehensive review of the studies utilizing the Kohlberg method of assessment and the Defining Issues Test to examine sex differences in moral judgment. His meta-analysis of 108 studies showed that only 8 significantly favored males. Most showed nonsignificant differences. He noted that several are methodologically flawed and most relied on early stage definitions and scoring procedures that have since been revised. Walker stated that this does not mean that sex differences in moral

judgment do not exist. Rather, the differences may exist in content within a stage (what the individual is valuing, judging or appealing to) or in the use of a characteristic orientation when making a moral judgment.

Rest (1986) noted problems with the lack of theoretical definition of the "care orientation" which denotes directives for action choices in conflict laden situations. Rest explained these problems as being due to the characteristics are also components of a justice orientation. Rest (1976) assessed sex differences in 22 studies using the Defining Issues Test and found only two that reported significant differences between males and females. In both studies, the females achieved higher moral maturity scores. However, the samples in the 22 studies ranged in age from 14-20, which excludes data from the older adult population. Thus, the literature is often conflicting, difficult to interpret and operational definitions vague.

Given our current state of knowledge in the area of sex differences and moral orientation, it is difficult to make definitive statements. The findings cited above lend evidence to the existence of care-based and justice-based moral orientations (Friedman et.al., 1987 and Lyons, 1983) which supports Gilligan's theory. Carlson (1971) found differences in personality functioning and Lyons (1983) found evidence of sex differences in personality functioning

and moral orientation, but there is considerable overlap and equivocality. Gilligan also addresses the areas of overlap but states, in concordance with Lyons and Carlson, that one mode is usually predominant in the individual.

The aim of the present study is to constructurally validate the Singer-Loomis Inventory of Personality (SLIP) by assessing its ability to differentiate levels of moral maturity based on personality type. Unlike other measures of typology, the SLIP is designed to measure each bipolar dimension separately, thus allowing for the measurement of varying degrees of individual differentiation. The SLIP is still in its experimental stages of development and further empirical validation is required. However, its reliability and validity to date is well founded and reported previously.

There have been only two other studies known to the author that have assessed the relationship between moral maturity and Jungian typology. Using an all male sample, Handel (1977) found that introverts achieved higher moral maturity scores than extroverts and that introverts dominated by either of the rational functions (thinking or feeling) achieved higher moral maturity scores than other types. Because his sample was limited in age range, Handel was not able to assess the effects of typology on levels of moral maturity beyond a conventional stage of moral

judgment. Using an all female sample, Guertin (1986) found that there were more intuitives and thinkers represented by those achieving higher levels of moral maturity. However, both researchers utilized the Myers-Briggs Type Indicator which, as noted above, violates Jung's assumption of bipolarity. The present study does not so impose an artifactual bipolarity.

Another aim of the present study is to assess the influence of sex differences on typology. Singer and Loomis (1984) report the same three cognitive modes are preferred by men and women (introverted feeling, introverted intuition and extroverted thinking) although there is a small difference in rank ordering.

Sex differences in moral judgment have been well reviewed above. In brief, Gilligan (1982) has argued that because of different developmental processes, males and females approach moral decision making differently. Further, women's predominant use of a care ethic, which Gilligan claims is not represented in existing measures of moral maturity, results in lower scores on these measures. Research examining Gilligan's claims have received mixed findings, with the majority of researcher pointing to the need for further empirical investigation. This study will continue this examination by assessing the degree to which varying temperamental characteristics and abilities inherent

in sex-role differentiation influence moral maturity as it is conventionally measured. To date, there is no known study that examines the influence of sex differences on both typology and moral maturity.

The following hypotheses are presented:

1. Introversion is more highly correlated with moral maturity than extroversion.
2. Introverted thinking types are more highly correlated with moral maturity than other introverted types.
3. Extroverted sensing types show higher negative correlations with moral maturity than other types, as extroversion is the polar opposite of introversion and sensation, which is not a judgment function, does not go beyond the immediate accumulation of data.
4. In addition, this study will examine the following issues on an exploratory basis:
 - a. the effect of sex-role orientation on moral maturity.
 - b. the effect of sex-role orientation on typology.
 - c. the influence of sex-role orientation on the relationship between typology and moral maturity.

CHAPTER III

METHODS

Subjects

The 150 subjects were unpaid volunteers who agreed to participate in the research. The 113 undergraduate subjects were recruited from Loyola University of Chicago. All were enrolled in psychology courses and received course credit for their participation. The 37 adult subjects were friends and acquaintances of the examiner who were individually recruited for their volunteer participation to further psychological research. Of the total sample, 27 were dropped from the study due to invalid or incomplete test material. Another 5 were dropped because their ages (24-29) were above that of the typical undergraduate student and below the 30 year age limit for the adult sample. In this way, the developmental effects of early adulthood and mid to late adulthood on moral maturity could be examined more clearly.

The 118 subjects whose research data was analyzed ranged in age from 18-67 with an average age of 25.48 (see Table 1). Forty-five (38.1%) were male and 73 (61.9%) were female. The subject sample varied in ethnic and religious background (see Table 2). Ethnically, the majority of

Table 1

Frequencies of the Age Ranges for the Entire Sample

Age	F (N = 118)	%*
18 - 20	32	27
21 - 23	51	43
24 - 26	7	6
27 - 29	0	0
30 - 32	5	4
33 - 35	6	5
36 - 38	3	2.5
39 - 41	3	2.5
42 - 44	2	1.7
45 - 47	0	0
48 - 50	0	0
51 - 53	4	3.4
54 - 56	1	.1
57 - 59	0	0
60 - 62	1	.1
63 - 65	1	.1
66 - 68	2	1.7

*rounded to nearest hundred.

Table 2

Frequencies of Ethnic Categories and Religious
Affiliations of the Subject Sample

ETHNICITY	F (N = 118)	%
White	68	57.6
Hispanic	11	9.3
Black	26	22.0
Asian	5	4.2
East Indian	2	1.7
American Indian	1	.8
Other	5	4.2

RELIGION	F (N = 118)	%
Catholic	65	55.1
Protestant	18	15.3
Christian	4	3.4
Jewish	2	1.7
Moslem	1	.8
Hindu	1	.8
None	9	7.6
Other	18	15.3

subjects were White (57.6%). Twenty-two percent were Black and the remaining 15.2% were Asian, American and East Indian. In terms of religion, 55.1% endorsed Catholicism, 15.3% endorsed Protestantism, 3.4% endorsed Christianity and the remaining 24.5% endorsed Judaism, Mohammedanism (moslem), Hinduism, agnosticism or some other religious affiliation not specified on the demographic questionnaire (see Appendix D).

The subject sample was also well educated and represented a wide range of occupational choice. All had some college education, 23% had college degrees and an additional 11% had graduate education. Table 3 shows the frequency of the various occupations chosen primarily by the adult subjects. The vast majority (99%) of the undergraduate subjects were full-time students who did not have careers in addition to college attendance.

Materials

The Singer-Loomis Inventory of Personality

The Singer-Loomis Inventory of Personality (SLIP, see Appendix D) is a pencil and paper instrument that measures the relative development of the eight basic Jungian cognitive modes (introverted thinking, introverted feeling, introverted intuition, introverted sensation, extroverted thinking, extroverted feeling, extroverted intuition and extroverted sensation) of the subject. It consists of 15

Table 3

Frequencies of Occupational Categories of the
Older Subject Sample

OCCUPATION	<u>F</u> (N = 28)	%
Education	7	25
Business	5	17.8
Social Service	3	10.7
Clerical	2	7
Fine Arts	2	7
Health	2	7
Nursing	1	3.5
Engineering	1	3.5
Law	1	3.5
Self-Employed	1	3.5
Manual Labor	1	3.5
Homemaker	1	3.5
Student (Full-time)	1	3.5

situations specifying an internal affective state to which eight possible responses, corresponding to the eight cognitive modes mentioned above, are offered. The subject is asked to indicate how accurately each of the eight alternatives describes his or her probable behavior by evaluating each response on a Likert scale from 1 ("never") to 5 ("always"). Thus, each cognitive mode is measured independently. Initial studies, reported previously, lend empirical support to its reliability and validity (Singer and Loomis, 1984). The SLIP takes approximately 30 minutes to complete. Parsimonious instructions for complete scoring are also provided for either the subject or instructor, though interpretation of the scores must be made by a trained professional.

The Defining Issues Test

The defining Issues test (DIT, see Appendix B) is a paper and pencil objective test measuring moral judgement based on Kohlberg's theory of moral development. There are several differences between the DIT and Kohlberg's Interview that are noted in the Revised Manual for the Defining Issues Test (Rest, 1979). First, Kohlberg's assessment asks subjects to spontaneously generate a solution to a moral problem, whereas the DIT asks that subjects evaluate considerations that are provided. Thus, as a recognition task rather than a production task, subjects tend to score

higher on the DIT than they do on Kohlberg's Interview. Second, Kohlberg's procedure requires an evaluator to classify a subject's responses according to scoring guidelines, while the DIT requires the subject to classify his or her own responses in a manner which makes objective scoring possible. Third, Kohlberg's assessment locates a subject in a developmental sequence by stage typing, whereas the DIT's P% locates a subject in terms of a continuous numbering representing a developmental continuum. However, both the Kohlberg assessment and the DIT assume that there are qualitatively different cognitive operations involved at different stages of development.

The DIT consists of six moral dilemmas. For each dilemma, twelve issues bearing upon that situation are also presented. The subject is asked to rate each issue on a Likert scale of importance ('great', 'much', 'some', 'little', 'no') in deciding what is to be done. Subjects are also asked to rank order their first four choices, in terms of perceived importance, considering the twelve issues provided. Each issue is designed to exemplify some distinctive characteristic of a moral developmental stage based on Kohlberg's theory (Rest, Cooper, Coder, Masanz and Anderson, 1974). Items are written for stages 2, 3, 4, 5a (measuring morality of social contract), 5b (measuring intuitive humanism), and stage 6 (see pages 16-17 for an

explanation of these stages).

Stage scores are computed based on weighted ranks. Included among the items representing the stages are nonsense items that use high sounding phrases. These nonsense items allow for the computation of the M score. The M score measures the degree to which a subject endorses statements for their pretentiousness rather than actual meaning and serves as a consistency check for a subject's reliability. A raw M score of greater than or equal to 8 or an M percentage of 14 or more is considered invalid. A second consistency check measures the amount of inconsistency between a subject's ratings and rankings of an item. For instance, if a subject ranks an item first, then there should not be other items rated higher (although others may tie in rating). For this consistency check, if there are inconsistencies on more than two stories, or if the number of inconsistencies exceeds eight on any story then the test is considered invalid. Rest (1979) states that failure to pass either consistency check suggests that the subject may be responding carelessly, randomly checking, or has misunderstood the instructions and the protocol should be discarded. This rule of thumb was followed in this study.

The DIT also generates an A score and a P%. The A score measures an "anti-establishment" orientation, a point of view which condemns tradition and the existing social

order for its arbitrariness or its corruption by the rich for the exploitation of the poor (Rest, 1979). Items of this nature were included in the DIT to enable the study of "regressed" stage 2 subjects whose interest in the antiestablishment orientation may have actually reflected a transition from stage 4 to stage 5 but the results of their stage scoring might temporarily reflect a stage 2 moral development. However, not much research has been done in this regard and the A score is usually discarded. The A score will not be used in this study. Finally, a P score, which is the sum of the weighted ranks for items at the fifth and sixth (principled morality) stages, is calculated. The P%, or the percentage of items at the principled morality stages was used in the data analysis. The DIT takes approximately 40 minutes to complete.

The Bem Sex Role Inventory

The Bem Sex Role Inventory (BSRI, see Appendix C) is a paper and pencil measure that asks subjects to indicate on a 7-point scale how well each of the 60 masculinity, femininity and neutral adjectives reflecting personality characteristics describes him or herself. The scale ranges from 1 ("never or almost never true") to 7 ("always or almost always true"). On the basis of the responses, each subject receives three major scores: a Masculinity score which measures the instrumental orientation of getting the

job done; a Femininity score which measures the expressive orientation characterizing an affective concern for the welfare of others; and an Androgyny score which measures the relative amounts of masculinity and femininity that the subject includes in his or her self-description. The BSRI treats masculinity and femininity as two independent dimensions, thereby making it possible to characterize a person as masculine, feminine or androgynous. A social desirability score can also be computed. The BSRI takes approximately 20 minutes to complete. The reliability and validity of the scales of the BSRI have been empirically supported (Bem, 1974).

The Demographic Questionnaire

All subjects were asked to fill out a questionnaire to enable the collection of various demographic data about the subjects. Subjects were asked to provide information about their marital status, formal education, college major, siblingships, occupation, parent's occupation, religion and ethnicity (see Appendix A for a copy of this questionnaire).

Procedure

The experimental packets containing the four instruments and the informed consent form were collated prior to experimentation. They were arranged such that the informed consent form was presented first and the demographic

questionnaire second. The SLIP, DIT and BSRI were presented an equal number of times in each of the six possible orders these three tests could be arranged in. Each combination was presented an equal number of times. In this way, confounding due to ordering effects was controlled for.

For the undergraduate subjects, the experimenter met with groups of students who volunteered to participate and explained the purpose and requirements of the research. Subjects were informed that they would be required to fill out several pencil and paper personality measures in order to help validate one of the measures that is in the experimental stages of development. Subjects were also informed that this research was being conducted as a dissertation project and they would be fully debriefed upon completion. On the occasions when the experimenter was not able to meet with a group of volunteers, the course instructor provided the information noted above.

The experimental packets were then distributed and the students were asked to read and sign the informed consent form which was removed from the packet upon receipt by the experimenter. Since each measure provided parsimonious instructions and examples, no further instructions were given. However, subjects were encouraged to ask any clarifying questions. For the students who signed-up for an experimental administration time, the inventories were

completed during a single two-hour session. For students who were recruited from individual psychology courses, experimental packets were returned one week subsequent to distribution. Debriefing information explaining the nature of the experiment, the individual inventories and the constructs they measure as well as references for further reading were provided to all research participants (see Appendix E for a copy of the debriefing form).

The adult subjects were individually recruited and were given the same information as the undergraduate subjects. Experimental materials were distributed along with a self-addressed, stamped envelope in which to return the material to the experimenter. The adult subjects were asked to return the completed inventories within a two week period of time. The signed informed consent form was removed upon receipt by the experimenter, and debriefing information was then sent to the adult subjects' respective homes.

CHAPTER IV

RESULTS

The results section is organized such that the hypotheses are discussed in order of prediction. Hypothesis one is discussed separately while hypotheses two and three, because they are theoretical corollates, are discussed together. Hypothesis four, which is actually comprised of three related exploratory hypotheses, are also discussed together. Finally, an additional finding of interest, though not related to a hypothesis, is presented at the end of this section.

Hypothesis One

Hypothesis one predicted that introversion is more highly correlated with moral judgment than extroversion. A multiple regression was performed using moral maturity as the dependent variable and introversion and extroversion as the predictor variables. This specific analysis was chosen for hypothesis one, two and three in order to statistically determine the relative influence of the SLIP personality variables as well as the influence of sex-role orientation and gender upon moral maturity. For this reason, sex-role orientation, age and gender were also loaded as they were

expected to influence moral maturity. The multivariate analysis yielded a nonsignificant $F(6,106) = 1.99$, thus hypothesis one was not supported. Univariate analysis indicated that only age was significant, with a beta weight of .18, ($t = 1.98$, $p < .05$) and had a positive correlation with moral maturity ($r(113) = .23$, $p < .05$).

Hypotheses Two and Three

Hypothesis two predicted that introverted thinking types correlate more highly with moral maturity than other types. Hypothesis three predicted that extroverted sensing types show higher negative correlations with moral maturity than other types. Again, these hypotheses were tested using a multiple regression with the moral judgment index as the dependent variable, the eight cognitive modes generated by the SLIP, age, gender and sex-role orientation loaded as predictor variables. The last three variables were loaded on the first step. The multiple regression yielded a nonsignificant $F(6,106) = 1.20$. Univariate analysis indicated a nonsignificant trend for age, beta weight of .18, ($t = 1.79$, $p < .07$). Age also had a small positive correlation with moral maturity as it did in analysis one ($r(113) = .23$, $p < .05$). No other variables were significant and neither hypothesis two nor three was supported.

Hypothesis Four A, B, and C

Hypothesis four has three components, all of which were examined on an exploratory basis. Hypothesis 4a investigated the effect of sex-role orientation on moral maturity. A two way analysis of variance was performed with moral maturity as the dependent variable and the Bem categories of masculinity (high/low) and femininity (high/low) and gender as the independent variables. A median-split was used to divide subjects on the Bem scale. The femininity median was 101.00 and the masculinity median was 100.50. Thus, persons scoring above both medians were classified as androgynous, below both medians were classified as undifferentiated, above on femininity and below on masculinity were classified as feminine, and above on masculinity and below on femininity were classified as masculine. The means for the moral judgment index on each of the four male groups are as follows: undifferentiated, $M = 39.58$ ($n = 12$), Masculine, $M = 41.03$ ($n = 21$), Feminine, $M = 35.00$ ($n = 4$) and androgynous, $M = 33.33$ ($n = 4$). The means for the moral maturity judgment index for each of the four female groups are as follows: androgynous, $M = 41.15$ ($n = 16$), undifferentiated, $M = 40.00$ ($n = 14$), masculine, $M = 35.26$ ($n = 13$), and feminine, $M = 34.36$ ($n = 26$). The analysis of variance summary table is presented in Table 4. The independent variables are gender and sex-role orientation.

Table 4

Analysis of Variance Summary Table for Sex-Role Orientation and Gender on Typology

Source	SS	df	MS	F	p
<u>Main Effects</u>	307.50	3	102.50	.58	n.s.
Femininity	167.63	1	167.63	.95	n.s.
Masculinity	56.20	1	56.19	.32	n.s.
Gender	3.10	1	3.10	.02	n.s.
<u>Two-Way Interactions</u>	481.79	3	160.59	.91	n.s.
Femininity x Masculinity	274.36	1	274.36	1.55	n.s.
Femininity x Gender	284.74	1	284.74	1.61	n.s.
Masculinity x Gender	4.55	1	4.55	.03	n.s.
<u>Three-Way Interactions</u>	277.44	1	277.44	1.56	n.s.
Femininity x Masculinity x Gender	277.44	1	277.44	1.56	n.s.
<u>Explained</u>	1066.70	7	152.39	.86	n.s.
<u>Residual</u>	18606.91	105	177.21		
<u>Total</u>	19673.60	112	175.66		

The results of the ANOVA failed to show any main effects or interactions for sex-role orientation or gender on moral maturity. Thus, no significant group differences were found, and sex-role orientation nor gender was not found to effect moral maturity.

Hypothesis 4b investigated the effect of sex-role orientation on typology. A 2x2x2 MANOVA was performed with the BEM categories (high/low masculinity and high/low femininity) and gender as the independent variables. The dependent variables were scores on the eight cognitive modes generated by the SLIP. The means and standard deviations for these modes are presented in Table 5. The results indicated that the third order interaction of gender by masculinity by femininity, which specifically examined hypothesis 4b, was not significant, $F(8,105) = 1.22$. Thus, a multivariate relationship between sex-role orientation and typology was not found. However, one second order interaction, femininity by masculinity, did produce a nonsignificant trend, $F(8,105) = 1.85$, $p < .07$. This trend was probed by means of univariate analyses on the dependent variables scores of introverted thinking, introverted intuition and extroverted thinking. This probing indicated that the cognitive modes, introverted thinking, $F = 4.86$, introverted intuition, $F = 5.96$ and extroverted thinking $F = 6.70$ at $p < .03$, $.02$ and $.01$, respectively, were

Table 5

Means and Standard Deviations of Sex-role Orientation of Males and Females on the SLIP Subscales

	MALES (N = 44)			FEMALES (N = 59)		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Introverted Thinking						
Undifferentiated	12	46.67	5.33	14	53.07	6.06
Masculine	21	49.05	7.39	13	46.62	6.19
Feminine	4	45.50	10.21	26	49.00	5.76
Androgynous	7	48.43	6.32	16	55.13	8.41
Introverted Feeling						
Undifferentiated	12	45.75	6.37	14	47.71	6.66
Masculine	21	43.19	6.69	13	44.61	9.55
Feminine	4	46.75	6.45	26	50.31	7.23
Androgynous	7	46.57	4.61	16	51.38	6.85
Introverted Sensation						
Undifferentiated	12	47.50	6.14	14	49.50	5.53
Masculine	21	47.76	6.17	13	48.08	5.98
Feminine	4	48.25	7.89	26	50.77	5.57
Androgynous	7	48.86	5.52	16	52.75	6.95

(continued)

Table 5 (continued)

	MALES (N = 44)			FEMALES (N = 59)		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Introverted Intuition						
Undifferentiated	12	47.75	6.05	14	47.07	5.71
Masculine	21	43.33	7.84	13	42.15	9.64
Feminine	4	44.00	9.90	26	49.73	7.20
Androgynous	7	50.00	6.43	16	50.25	6.92
Extroverted Thinking						
Undifferentiated	12	43.75	3.28	14	47.93	3.54
Masculine	21	44.38	5.86	13	42.23	5.12
Feminine	4	43.00	8.17	26	43.29	5.72
Androgynous	7	46.43	6.40	16	47.44	6.88
Extroverted Feeling						
Undifferentiated	12	42.48	7.53	4	43.57	6.32
Masculine	21	42.57	5.98	13	40.36	5.60
Feminine	4	42.50	5.80	26	44.57	4.77
Androgynous	7	43.43	6.02	16	44.31	6.44
Extroverted Sensation						
Undifferentiated	12	44.41	5.37	14	40.21	8.66
Masculine	21	40.91	8.28	13	38.69	5.65
Feminine	4	41.25	9.91	26	39.35	4.80
Androgynous	7	38.58	8.42	16	41.63	9.04

(continued)

Table 5 (continued)

	MALES (N = 44)			FEMALES (N = 59)		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Extroverted Intuition						
Undifferentiated	12	44.50	4.25	14	43.00	7.30
Masculine	21	40.33	7.23	13	38.77	6.93
Feminine	4	42.00	4.97	26	44.46	6.25
Androgynous	7	44.57	8.58	16	44.50	7.94

significant. The group means for introverted thinkers are: androgynous, $M = 53.40$, undifferentiated $M = 49.61$, feminine, $M = 49.03$, and, masculine, $M = 47.59$. This finding may suggest that persons who are less sex-role typed achieve greater development of the introverted thinking function. For introverted intuition, the group means are, androgynous, $M = 49.60$, feminine, $M = 48.76$, undifferentiated, 47.47 , and masculine, $M = 42.88$. This finding may suggest that persons who can flexibly adapt (androgynous) or are oriented toward a more communal sex-role orientation (feminine) achieve a greater development of the introverted intuitive capacity. Finally, the group means for extroverted thinking are, androgynous, $M = 47.24$, undifferentiated, $M = 46.39$, feminine, $M = 43.25$, and masculine, $M = 43.21$. This finding may suggest that persons who are less sex-role "typed" achieve a greater development of the extroverted thinking function than those who are more sex-role typed. Taken together, these findings may further suggest that as a group, androgynous individuals, who had the highest means on all three cognitive modes, are able to achieve a higher degree of cognitive differentiation than either the undifferentiated or sex-role typed groups.

Finally, the MANOVA analysis indicated that one main effect, gender, yielded a nonsignificant multivariate trend, $F(1,105) = .07$. Univariate analysis indicated that

introverted thinking was the only cognitive mode that was significant, $F(1,105) = .02$. This suggests that females, $M = 51.15$ tend to score higher than males, $M = 48.06$ on the introverted thinking function.

Hypothesis 4c examined the influence of sex-role orientation of the relationship between typology and moral maturity. An analysis of covariance was performed separately for both males and females using typology as the independent variable, moral maturity (P%) as the dependent variable, and sex-role orientation as the covariate. The moral judgment index means for males on their highest scored cognitive mode were introverted thinking, $M = 40.21$ ($n = 16$), introverted feeling, $M = 35.56$ ($n = 6$) introverted intuition, $M = 38.06$ ($n = 6$), introverted sensation, $M = 39.00$ ($n = 5$), extroverted thinking, $M = 41.67$ ($n = 2$), extroverted feeling, $M = 41.67$ ($n = 2$), extroverted intuition ($n = 0$), and extroverted sensation, $M = 44.17$ ($n = 2$). The analysis of covariance summaries for both groups are presented in Tables 6 and 7, respectively. For males, the covariates of masculinity, $F(1,30) = .01$ and femininity $F(1,30) = 1.2$ were not significant. The main effect for typology, $F(6,30) = .125$ was not significant. The moral judgment index means on the highest scored cognitive mode for females are, introverted thinking, $M = 40.69$ ($n = 24$), introverted feeling, $M = 29.17$ ($n = 8$), introverted

Table 6

Analysis of Covariance Summary Table for Males of Moral
Maturity on Typology

SOURCE	SS	df	MS	F	p
<u>Covariates</u>	253.32	2	126.66	.62	n.s.
Masculinity	3.96	1	3.96	.02	n.s.
Femininity	251.22	1	251.22	1.24	n.s.
<u>Main Effects</u>	152.76	6	25.46	.13	n.s.
Typology	152.76	6	25.46	.13	n.s.
<u>Explained</u>	406.08	8	50.76	.25	n.s.
<u>Residual</u>	6098.34	30	203.28		
<u>Total</u>	6504.42	38	171.17		

Table 7

Analysis of Covariance Summary Table for Maturity
on Typology

<u>SOURCE</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Covariates</u>	516.35	2	258.18	1.52	n.s.
<u>Masculinity</u>	503.16	1	503.16	2.96	n.s.
<u>Femininity</u>	17.49	1	17.49	.10	n.s.
<u>Main Effects</u>	1213.11	5	242.62	1.43	n.s.
<u>Typology</u>	1213.11	5	242.62	1.43	n.s.
<u>Explained</u>	1729.46	7	247.07	1.45	n.s.
<u>Residual</u>	8843.27	52	170.06		
<u>Total</u>	10572.73	59	179.20		

intuition, $M = 37.50$ ($n = 10$), introverted sensation, $M = 36.00$ ($n = 15$), extroverted thinking, $M = 44.17$ ($n = 2$), extroverted feeling, $M = 58.33$ ($n = 1$), extroverted intuition, ($n = 0$), and extroverted sensation, ($n = 0$). For females, the covariates of masculinity, $F(1,30) = 2.9$ and femininity, $F(1,30) = .10$ were not significant. The main effect of typology, $F(5,52) = 1.43$ was also not significant. These findings suggest that sex-role orientation does not influence the relationship between typology and moral maturity.

One final finding, not relevant to hypotheses, but nonetheless of interest is the moral maturity index for the sample. On the moral maturity index, P%, the entire sample had an average P% of $M = 37.83$, for males $M = 38.74$ and for females $M = 37.28$. One way analysis of variance of moral maturity (P%) by gender was nonsignificant, $F(1,116) = .33$. Thus, there was no difference between males and females in level of moral decision making.

CHAPTER V

DISCUSSION

The purpose of the present study was to perform a construct validity study on the Singer-Loomis Inventory of Personality (SLIP) by assessing its ability to differentiate levels of moral maturity based on Jungian personality type. The SLIP is a relatively new instrument that attempts to improve the method of Jungian personality measurement by fully incorporating the assumption of bipolarity. The assumption of bipolarity posits that the two opposing pairs of attitudes (extroversion/introversion) and the two opposing pairs of functions (thinking/feeling and sensation/intuition) are mutually exclusive, and that the dominant one in each pair will attain a higher degree of consciousness. However, the assumption of bipolarity also states that it is possible for the less conscious polar opposites to also attain a high degree of differentiation. Previous Jungian personality instruments fail to fully incorporate the assumption of bipolarity because their forced-choice construction does not allow for the measurement of the differentiation of the paired opposites. The SLIP allows for the independent measurement of each of the cognitive modes, therefore attempts to fully incorporate

the bipolarity assumption. This study also examined, on an exploratory basis, the relationship between sex-role orientation, typology and moral maturity.

The results of the experimental analyses failed to support the hypotheses that 1) introversion is more highly correlated with moral maturity than extroversion, 2) introverted thinking types are more highly correlated with moral maturity than other introverted types, and 3) extroverted sensing types show higher negative correlations with moral maturity than all other types, as extroversion is the polar opposite of introversion, and sensation, which is not a judgment function, does not go beyond the immediate accumulation of data. The results did not show any significant differences on level of moral decision-making due to the effect of cognitive attitude and/or cognitive function.

These results were not expected and there are several possible explanations for their occurrence. One limitation of this study is that not all of the eight possible personality "types" were represented by the sample. For instance, no subject had extroverted intuition as their highest mode, thus no one was an "extroverted intuitive type". In addition, over 50% of the subjects had extroverted sensation as their lowest mode, an above chance occurrence that the SLIP authors recognize as a problem.

These observations are indicative that the SLIP is in need of further revision for future use.

This raises the issue of the utilization of the SLIP which is still in its experimental edition. The lack of support for the major hypotheses for this study may be due to the infancy of this instrument. Singer and Loomis certainly responded to a need when developing the SLIP since it is the only one of its kind, known to this author, that fully incorporates the assumption of bipolarity. Thus, it would be useful to repeat this study with the revised edition of the SLIP in order to again assess its ability to discriminate moral maturity based on typology.

Another limitation is that the sample is highly educated. The skewedness of the sample with regard to education clearly limits the generalizability of the findings. Future studies of this type might obtain not only a significant age and ethnic range, but also an educational range so that definitive comparisons can be made. Education has been shown to have a consistent relationship with moral maturity on the DIT (Rest, 1979) such that more educated individuals achieve higher moral maturity scores. Thus, a more educationally diverse sample may also broaden the range of moral maturity scores obtained.

In addition, the SLIP may not be accurately measuring the cognitive modes. It is possible that the preliminary

validity studies conducted on the first two versions of the SLIP are not adequate for version number three. Therefore, the subscales may not be measuring what they purport to measure. There is some evidence of subscale mismeasurement. Loomis (personal communication, 1985) stated that in her experience administering the SLIP, the majority of respondents obtained extroverted sensation as their least developed modes. This, she concluded, was far more than should occur by chance and represents a flaw in this subscale. Likewise, the frequency distribution of cognitive modes for this sample showed that extroverted sensation was the least developed mode for 50% of the subjects. This is also more than a chance occurrence and indicates that this scale, and quite possibly others, needs revision.

Another possible explanation for the lack of experimental support for the hypotheses may be the response patterns of the subjects in this sample. The correlation matrix of the multiple regressions performed revealed an interesting pattern, though it was not statistically significant. Each of the eight SLIP cognitive modes had a small negative correlation with the moral judgment index. While the numeric differences among the correlations must statistically be treated as zero due to multivariate nonsignificance, the consistent pattern of negative correlations for all eight modes can be addressed. It

suggests that higher levels of moral maturity are associated with less extreme responding on the SLIP. Thus, the more evenly developed the modes are, the higher the level of moral decision-making is likely to be. The subjects in this sample, by and large, did not obtain extreme scores on either the overall attitude scales (introversion/extroversion) or the function scales (thinking/feeling, sensation/intuition). Thus, outstanding scores, indicating a single differentiated mode, are not likely to be predictive of higher levels of moral maturity.

The implications of this interpretation are twofold. First, the subject sample consisted largely of highly educated young adults whose educational, cultural and life experiences may have encouraged a more equilibrated cognitive style, as opposed to the dominance of a cognitive attitude and function. This might also explain the difference between the findings of this study and Handel's (1977) study. Handel, who found that introverts achieved higher moral maturity scores than extroverts, utilized a sample comprised primarily of high school subjects. These subjects may have lacked the developmental experience necessary for a higher level of cognitive differentiation, thus there was a clear distinction between the attitude types on level of moral maturity. This further suggests that individuals first develop a cognitive style wherein

there is a characteristic reliance upon an attitude (extroversion/introversion) or function (thinking/feeling and sensation/intuition). However, the next developmental step is a more integrated and balanced utilization of the modes. This occurrence is the psychometric manifestation of the Jungian notion of individuation.

Additional evidence in support of this notion is the significant finding for the age variable. The significant positive correlation between age and moral maturity indicates that the older one is, the more morally mature he/she is likely to be. Of course, it is not age alone that is the crucial component in this relationship. Rather, it is the increased opportunity for role-playing, the increased opportunity to experience interpersonal conflict and to experience real life moral dilemmas that age provides which make moral-decision making more sophisticated.

Second, although diverse in ethnic and religious background, the high educational level of the sample may have limited the range of moral maturity scores obtained. The average moral maturity index for this population was 37.83 and is consistent with other scores obtained for college-educated populations (Rest, 1979). Rest reports that education and I.Q. have low but consistent positive correlations with DIT scores.

The remaining hypotheses for this study were

exploratory in nature. The effect of sex-role orientation on moral maturity was investigated. First, the experimental results indicated that there were no significant group differences in terms of sex-role orientation (androgynous, undifferentiated, masculine and feminine) on level of moral decision-making for either males or females. This finding is consistent with the research findings of Friedman, Robinson and Friedman (1987) who also found no effects of sex-role orientation on moral reasoning.

Other researchers have examined gender differences on moral reasoning. Specifically, Gilligan (1982) argues that women, when measured by the justice-based, Kohlbergian model of moral development, score lower in comparison to men. Gilligan posits that women rely on a care-based moral ethic which emphasizes concern for the welfare of others. As such, she states women's performance on justice-based moral judgment indices, which emphasize rights and responsibilities, suffers. The Defining Issues Test (DIT), based on Kohlberg's theory of moral development, thus by Gilligan's standard's, is a justice-based instrument. However, the research findings of this study as well as those of others (Rest, 1976; Walker, 1984) failed to find gender differences on moral judgment utilizing the DIT.

A possible explanation for the lack of gender differences on moral reasoning is that the DIT is an

objective measure. Gilligan (1980, 1982), and other researchers whose findings substantiate Gilligan's (Carlson, 1971; Lyons, 1983) used semi-structured interviews in their research. It may be that the detection of gender differences in moral reasoning necessitates an experimental tool that enables spontaneous verbalization. In this way, the specific content of what the individual is considering, valuing and judging with regard to moral decision-making can be specifically assessed.

Another hypothesis of this research examined the effect of sex-role orientation on typology. The experimental results indicated that there is no overall relationship between sex-role orientation and typology. However, several nonsignificant trends produced interesting results with regard to sex-role orientation and introverted thinking, extroverted thinking and introverted intuition. For both introverted thinking and extroverted thinking, the group order for highest score obtained was androgynous, undifferentiated, feminine and masculine. The thinking functions require the capacity to perform step-by-step deliberations, in which the situational components are weighed and balanced in the process of decision-making. This occurs for thinking that is both internally (introverted) and externally (extroverted) related. These findings suggest that the less sex-role typed individuals

achieve a greater development of the thinking functions than sex-role typed individuals. The specific pattern further suggests that those subjects with sex-role orientations having greater degrees of flexibility (androgyny, specifically), have also achieved a greater development of those characteristics that allow a greater utilization of the thinking function. An additional finding with regard to introverted thinking is that females tend to score higher than males. In fact, females tend to score higher on all the introverted functions in comparison to males in this sample.

With regard to introverted intuition, the group order for the highest score was androgynous, feminine, undifferentiated and masculine. The intuitive function allows the individual to receive information via unconscious process and enables the individual to envision what is possible. Introverted intuition presumably enables the individual to be guided by his/her inner fantasies and to exercise creativity that is not likely to be bound by logic and reason. The results suggest that people who can flexibly adapt (androgynous) or are more oriented toward a communal (feminine) sex-role orientation achieve a higher development of the introverted intuitive function. Overall, it appears that androgynous individuals tend to score higher than other sex-role orientation groups on both thinking functions and

the introverted intuitive function, suggesting that the flexibility characteristic of this sex-role orientation affords a greater development of these cognitive modes.

Finally, this study also investigated the influence of sex-role orientation on the relationship among moral maturity and typology. The experimental analyses failed to show any relationship between moral maturity, typology and sex-role orientation for either males or females. There are no other studies known to this researcher that have examined the relationship between sex-role orientation, moral maturity and typology. As such, these findings do not remove the possibility that a relationship exists. Future research might address the possibility of a relationship among these variables. One method would be to utilize the SLIP, once it has been refined and its validity is well established, along with an assessment tool that uses an interview format for measuring moral reasoning. In this way, the specific nature of a possible relationship between moral maturity, typology and sex-role orientation may be assessed.

In summary, none of the major hypotheses predicting positive correlations between introversion and introverted thinking, as measured by the SLIP, and moral maturity were supported. These results are not consistent with Handel's (1977) results where introversion was found to correlate

more highly with moral maturity than extroversion. The subject samples in these two studies, however, were vastly different in composition, and different measures for both Jungian typology and moral maturity were used. While the SLIP was designed to improve the method of measuring moral maturity, it is in need of refinement, and the flaws present in the current edition may be partially responsible for the different findings in these studies.

In the present study, there were no gender differences in level of moral reasoning as measured by the DIT. These findings are consistent with other findings reported in the literature that have utilized the DIT (Rest, 1976, 1979; Walker, 1984). However these findings do not support Gilligan's claim of gender differences in moral reasoning. This study is not definitive, however, in resolving the current controversies surrounding the question of whether or not there are gender differences in moral reasoning. The studies that have supported Gilligan's (1982) claims (Carlson, 1971; Lyons, 1983), utilized semi-structured interviews to assess moral maturity, the potential benefits of which have been previously noted. It would be important for future studies addressing these issues to utilize methodology similar to what has already been employed to obtain a more definitive conclusion.

SUMMARY

This study sought to assess the construct validity of the Singer-Loomis Inventory of Personality (SLIP) by measuring its ability to predict level of moral maturity based on Jungian typology. The SLIP, a new instrument currently undergoing empirical testing, attempts to improve the method by which typology is assessed by measuring each subscale independently. In this way, the degree of differentiation of each cognitive mode is measured and, unlike The Myers-Briggs Type Indicator and The Jungian Type Survey, the assumption of bipolarity is incorporated. It was hypothesized that: 1) introversion is more highly correlated with moral maturity than extroversion, 2) introverted thinking types correlate more highly with moral maturity than other introverted types, and 3) extroverted sensing types show higher negative correlations with moral maturity than other types, as extroversion is the polar opposite of introversion, and sensation, which is not a judgment function, does not go beyond the immediate accumulation of data. The study also examined Gilligan's (1982) claim of gender differences on moral reasoning. Finally, on an exploratory basis, it examined the relationships among typology, moral maturity and sex-role orientation.

One-hundred eighteen subjects ranging in age from 18-67 volunteered to participate in the study. Of these, 90 (76%) were undergraduates from Loyola University of Chicago and 28 (24%) were adults above the age of 30. All were administered three paper and pencil tests: The Singer-Loomis Inventory of Personality, indicating relative differentiation of each cognitive mode; The Defining Issues Test, providing a moral maturity score for each subject; and The Bem Sex-Role Inventory, providing a categorical grouping of sex-role orientation (androgynous, undifferentiated, masculine feminine) for each subject.

The experimental results failed to support the major hypotheses. Multiple regression analyses indicated that no significant effect on level of moral decision-making was attributable to cognitive attitude and/or function. The Bem Sex Role Orientation failed to produce significant group effects for moral judgment, nor were there significant gender differences on moral judgment. Thus, Gilligan's claims were not supported. In terms of sex-role orientation on typology, nonsignificant univariate trends indicated that for introverted thinking, extroverted thinking and introverted intuition, the androgynous group scored higher than the other sex-role orientation groups. Finally, there was no significant relationship among moral maturity, typology, and sex-role orientation for either males or females.

The author suggests that the SLIP is in need of further revision, noting inaccurate measurement of the extroverted sensation subscale in particular. In addition, it is proposed that individuals whose opportunities for greater role-taking experiences, interpersonal conflict and the resolution of moral dilemmas are likely to have a more even distribution of cognitive modal differentiation. A more balanced utilization of cognitive modes is suggested to be the next developmental phase, following cognitive attitude or function dominance. Such a developmental progression is in alignment with Jung's theory on individuation. Directions for future research are suggested.

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APPENDIX A

INFORMED CONSENT FORM

TO ALL VOLUNTEER SUBJECTS:

Thank you for volunteering to participate in this study. The aim of this study is to empirically validate a personality inventory that is in the experimental stages of development. We want to look at how well this inventory can predict certain problem-solving abilities. The requirements are that you complete three measures; two objective personality inventories and a questionnaire about human problems. Another questionnaire asking some basic demographic information will also be included. Full participation requires that all of these measures be completed. This should take no more than 1½ hours.

If you choose to participate, please be informed that you are free to terminate at any time and no questions will be asked. Complete confidentiality will be maintained by using a combination of numerical and alphabetized codes, rather than names, on all experimental materials.

If you are willing to participate in the study, please sign and date the form below. This form is the only one requiring your signature and will be separated upon receipt and kept separate from this packet. Once again, Thank you for volunteering to participate.

Holly O. Houston, M.A.
Experimenter

signature

 / /
date

DEMOGRAPHIC INFORMATION

Subject #: _____ Today's Date: _____

Date of Birth: Month _____ Day _____ Year _____

Sex: Male _____ Female _____

Marital Status: Single _____ Married _____ Separated _____

Living with Someone _____ Remarried _____ Widowed _____

Religious Affiliation: Catholic _____ Protestant _____

Jewish _____ Other (specify) _____ None _____

List all your brothers and sisters according to age and include their sex. Start with the oldest. Include yourself.

<u>Age</u>	<u>Sex (M or F)</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____

Parent's Occupation:

Mother _____ Father _____

Parent's Marital Status: Married _____ Separated _____

Divorced _____ Remarried _____ Widowed _____ Other _____
(specify)

Undergraduate students, please indicate:

Freshman _____ Sophomore _____ Junior _____ Senior _____

Major: _____

Post-graduate plans: _____

-2-

If not an undergraduate student, please circle the highest year of school completed:

9	10	11	12	13	14	15	16	17	18	19	20+
high school			college or special school				graduate or professional school				

Present Occupation: _____

Number of years performing this work: _____

If applicable: previous occupation _____

number of years performing this work _____

Ethnicity: White _____ Hispanic/Latino _____ Black _____

Asian _____ American Indian _____ East Indian _____

Other (specify) _____

APPENDIX B

OPINIONS ABOUT SOCIAL PROBLEMS

This questionnaire is aimed at understanding how people think about social problems. Different people often have different opinions about questions of right and wrong. There are no "right" answers in the way that there are right answers to math problems. We would like you to tell us what you think about several problem stories. The papers will be fed to a computer to find the average for the whole group, and no one will see your individual answers.

Please give us the following information:

Name _____
 Age _____ Class and period _____ M
 School _____

* * * * *

In this questionnaire you will be asked to give your opinions about several stories. Here is a story as an example.

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. Below there is a list of some of these questions.

If you were Frank Jones, how important would each of these questions be in deciding what car to buy?

Instructions for Part A: (Sample Question)

On the left hand side check one of the spaces by each statement of a consideration. (For instance, if you think that statement #1 is not important in making a decision about buying a car, check the space on the right.)

IMPORTANCE:

Great Much Some Little No

					1. Whether the car dealer was in the same block as where Frank lives. (Note that in this sample, the person taking the questionnaire did not think this was important in making a decision.)
					2. Would a <u>used</u> car be more economical in the long run than a <u>new</u> car. (Note that a check was put in the far left space to indicate the opinion that this is an important issue in making a decision about buying a car.)
					3. Whether the color was green, Frank's favorite color.
					4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure about what "cubic inch displacement" means, then mark it "no importance.")
					5. Would a large, roomy car be better than a compact car.
					6. Whether the front connibillies were differential. (Note that if a statement sounds like gibberish or nonsense to you, mark it "no importance.")

Instructions for Part B: (Sample Question)

From the list of questions above, select the most important one of the whole group. Put the number of the most important question on the top line below. Do likewise for your 2nd, 3rd and 4th most important choices. (Note that the top choices in this case will come from the statements that were checked on the far left-hand side--statements #2 and #5 were thought to be very important. In deciding what is the most important, a person would re-read #2 and #5, and then pick one of them as the most important, then put the other one as "second most important," and so on).

<u>MOST</u>	<u>SECOND MOST</u>	<u>THIRD MOST</u>	<u>FOURTH MOST</u>
	<u>IMPORTANT</u>	<u>IMPORTANT</u>	<u>IMPORTANT</u>

HEINZ AND THE DRUG

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 druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid \$200 for the radium and charge \$2000 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 \$1000, which is half of what it cost. He told the druggist 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 Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug? (Check one)

Should steal it Can't decide Should not steal it

IMPORTANCE:

Great Much Some Little No

					1. Whether a community's laws are going to be upheld.
					2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal?
					3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?
					4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
					5. Whether Heinz is stealing for himself or doing this solely to help someone else.
					6. Whether the druggist's rights to his invention have to be respected.
					7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.

Heinz Con't

IMPORTANCE:

Great Much Some Little No

Great	Much	Some	Little	No	
					8. What values are going to be the basis for governing how people act towards other.
					9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
					10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
					11. Whether the druggist deserves to be robbed for being so greedy and cruel.
					12. Would stealing in such a case bring about more total good for the whole society or not.

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

STUDENT TAKE-OVER

At Harvard University a group of students, called the Students for a Democratic Society (SDS), believe that the University should not have an army ROTC program. SDS students are against the war in Viet Nam, and the army training program helps send men to fight in Viet Nam. The SDS students demanded that Harvard and the army ROTC training program as a university course. This would mean that Harvard students could not get army training as part of their regular course work and not get credit for it towards their degrees.

Agreeing with the SDS students, the Harvard professors voted to end the ROTC program as a university course. But the President of the University stated that he wanted to keep the army program on campus as a course. The SDS students felt that the President was not going to pay attention to the faculty vote or to their demands.

So, one day last April, two hundred SDS students walked into the university's administration building, and told everyone else to get out. They said they were doing this to force Harvard to get rid of the army training program as a course.

Should the students have taken over the administration building?
(Check one)

Yes, they should take over Can't decide No, they shouldn't
take it over

IMPORTANCE:

Great Much Some Little No

					1. Are the students doing this to really help other people or are they doing it just for kicks?
					2. Do the students have any right to take over property that doesn't belong to them?
					3. Do the students realize that they might be arrested and fined, and even expelled from school?
					4. Would taking over the building in the long run benefit more people to a greater extent?
					5. Whether the president stayed within the limits of his authority in ignoring the faculty vote.
					6. Will the takeover anger the public and give all students a bad name?

Student Con't

IMPORTANCE:

Great Much Some Little No

					7. Is taking over a building consistent with principles of justice?
					8. Would allowing one student take-over encourage many other student take-overs?
					9. Did the president bring this misunderstanding on himself by being so unreasonable and uncooperative?
					10. Whether running the university ought to be in the hands of a few administrators or in the hands of all the people.
					11. Are the students following principles which they believe are above the law?
					12. Whether or not university decisions ought to be respected by students.

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

ESCAPED PRISONER

A man had been sentenced to prison for 10 years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For 8 years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day, Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison 8 years before, and whom the police had been looking for.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison? (Check one)

Should report him Can't decide Should not report him

IMPORTANCE:

Great Much Some Little No

					1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
					2. Everytime someone escapes punishment for a crime, doesn't that just encourage more crime?
					3. Wouldn't we be better off without prisons and the oppression of our legal system?
					4. Has Mr. Thompson really paid his debt to society?
					5. Would society be failing what Mr. Thompson should fairly expect?
					6. What benefits would prisons be apart from society, especially for a charitable man?
					7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
					8. Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?
					9. Was Mrs. Jones a good friend of Mr. Thompson?
					10. Wouldn't it be a citizen's duty to report an escaped criminal regardless of the circumstances?

Prisoner Con't

IMPORTANCE:

Great Much Some Little No

					11. How would the will of the people and the public good best be served?
					12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

THE DOCTOR'S DILEMMA

A lady was dying of cancer which could not be cured and she had only about six months to live. She was in terrible pain, but she was so weak that a good dose of 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 she couldn't stand the pain and that she was going to die in a few months anyway.

What should the doctor do? (Check one)

He should give the lady an overdose that will make her die. Can't decide Should not give the overdose

IMPORTANCE:

Great Much Some Little No

					1. Whether the woman's family is in favor of giving her the overdose or not.
					2. Is the doctor obligated by the same laws as everybody else if giving her an overdose would be the same as killing her.
					3. Whether people would be much better off without society regimenting their lives and even their deaths.
					4. Whether the doctor could make it appear like an accident.
					5. Does the state have the right to force continued existence on those who don't want to live.
					6. What is the value of death prior to society's perspective on personal values.
					7. Whether the doctor has sympathy for this woman's suffering or cares more about what society might think.
					8. Is helping to end another's life over a responsible act of cooperation.
					9. Whether only God should decide when a person's life should end.
					10. What values the doctor has set for himself in his own personal code of behavior.

Doctor Con't

IMPORTANCE:

Great Much Some Little No

					11. Can society afford to let everybody and their lives when they want to.
					12. Can society allow suicides or mercy killing and still protect the lives of individuals who want to live.

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

WEBSTER

Mr. Webster was the owner and manager of a gas station. He wanted to hire another mechanic to help him, but good mechanics were hard to find. The only person he found who seemed to be a good mechanic was Mr. Lee, but he was Chinese. While Mr. Webster himself didn't have anything against Orientals, he was afraid to hire Mr. Lee because many of his customers didn't like Orientals. His customers might take their business elsewhere if Mr. Lee was working in the gas station.

When Mr. Lee asked Mr. Webster if he could have the job, Mr. Webster said that he had already hired somebody else. But Mr. Webster really had not hired anybody, because he could not find anybody who was a good mechanic besides Mr. Lee.

What should Mr. Webster have done? (Check one)

Should have hired Mr. Lee Can't decide Should not have hired him

IMPORTANCE:

Great Much Some Little No

					1. Does the owner of a business have the right to make his own business decisions or not?
					2. Whether there is a law that forbids racial discrimination in hiring for jobs.
					3. Whether Mr. Webster is prejudiced against orientals himself or whether he means nothing personal in refusing the job.
					4. Whether hiring a good mechanic or paying attention to his customers' wishes would be best for his business.
					5. What individual differences ought to be relevant in deciding how society's roles are filled?
					6. Whether the greedy and competitive capitalistic system ought to be completely abandoned.
					7. Do a majority of people in Mr. Webster's society feel like his customers or are a majority against prejudice?

Webster Con't

IMPORTANCE:

Great Much Some Little No

					8. Whether hiring capable men like Mr. Lee would use talents that would otherwise be lost to society.
					9. Would refusing the job to Mr. Lee be consistent with Mr. Webster's own moral beliefs?
					10. Could Mr. Webster be so hard-hearted as to refuse the job, knowing how much it means to Mr. Lee?
					11. Whether the Christian commandment to love your fellow man applies in this case.
					12. If someone's in need, shouldn't he be helped regardless of what you get back from him?

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

NEWSPAPER

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the war in Viet Nam and to speak out against some of the school's rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the newspaper in the next two weeks.

But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

Should the principal stop the newspaper? (Check one)

Should stop it Can't decide Should not stop it

IMPORTANCE:

Great Much Some Little No

					1. Is the principal more responsible to students or to the parents?
					2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?
					3. Would the students start protesting even more if the principal stopped the newspaper?
					4. When the welfare of the school is threatened, does the principal have the right to give orders to students?
					5. Does the principal have the freedom of speech to say "no" in this case?

Newspaper Con't

IMPORTANCE:

Great Much Some Little No

					6. If the principal stopped the newspaper would he be preventing full discussion of important problems?
					7. Whether the principal's order would make Fred lose faith in the principal.
					8. Whether Fred was really loyal to his school and patriotic to his country.
					9. What effect would stopping the paper have on the student's education in critical thinking and judgments?
					10. Whether Fred was in any way violating the rights of others in publishing his own opinions.
					11. Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in the school.
					12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most Important _____

Second Most Important _____

Third Most Important _____

Fourth Most Important _____

APPENDIX C

On the following page, you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe yourself. That is, we would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

DESCRIBE YOURSELF

1	2	3	4	5	6	7
NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENT- LY TRUE	OCCASION- ALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE

Self reliant	
Yielding	
Helpful	
Defends own beliefs	
Cheerful	
Moody	
Independent	
Shy	
Conscientious	
Athletic	
Affectionate	
Theatrical	
Assertive	
Flatterable	
Happy	
Strong personality	
Loyal	
Unpredictable	

Reliable	
Analytical	
Sympathetic	
Jealous	
Has leadership abilities	
Sensitive to the needs of others	
Truthful	
Willing to take risks	
Understanding	
Secretive	
Makes decisions easily	
Compassionate	
Sincere	
Self-sufficient	
Eager to soothe hurt feelings	

Masculine	
Warm	
Solemn	
Willing to take a stand	
Tender	
Friendly	
Aggressive	
Gullible	
Inefficient	
Acts as a leader	
Childlike	
Adaptable	
Individualistic	
Does not use harsh language	
Unsystematic	
Competitive	

Foreceful	
Feminine	

Conceited	
Dominant	
Soft-spoken	
Likeable	

Loves children	
Tactful	
Ambitious	
Gentle	
Conventional	

APPENDIX D

The Singer-Loomis Inventory of Personality (SLIP)

Introduction

The Singer-Loomis Inventory of Personality (SLIP) is a self-description. It provides you with an opportunity to clarify your own personality as you see it.

There are no right or wrong answers. This Inventory is not a measure of intelligence. It is not an indicator of emotional problems. It does not show how well you function in comparison with other people.

This Inventory is a key to understanding the nature of your own habit patterns, your usual ways of approaching tasks or situations. One way of reacting is no better or worse than any other, but there are differences. Each person tends to respond more frequently in some ways than in others.

There is no time limit to this Inventory, but it is best not to mull over the situations. Indicate what you would actually do in a situation such as the one described. We are not interested in what you think you *should* do, or what the right thing to do may be. We are interested in what you *actually would do*.

If there is a situation in which you cannot possibly imagine yourself, you may skip that situation entirely, and skip the corresponding numbers on your score sheet. However, if at all possible try to answer every situation.

Directions

Items 1 through 8 are responses to the first situation. Mark each response on a scale of 1 to 5, where:

- 1 is *never*
- 2 is *occasionally*
- 3 is *about half of the time*
- 4 is *usually*
- 5 is *always*

Fill in the blank that most closely corresponds to what you would do. For each situation you answer, *you must fill in a blank for each of the response possibilities.*

Items 9 through 16 are responses to the second situation. Continue filling in a blank for each response possibility until you have answered all 15 situations. You will have marked 120 blanks.

1	2	3	4	5
never	occasionally	about half of the time	usually	always

Situation #1

I have a free day coming up this week and will be able to do whatever I want. I would

1. imagine what is possible, then wait to see what the day brings before I decide.
2. participate in some sport with other people.
3. spend part of the day working in a group doing something of importance.
4. try something new with a few friends.
5. anticipate going with my group to a benefit for a worthwhile charity.
6. do some of the planning and organizing that I have been putting off.
7. call up the theatre and reserve a ticket for a show I've been wanting to see.
8. stay home alone and get into one of my hobbies like gardening, painting, woodworking, music, or yoga.

Situation #2

I am at home with a person I care about. We have just finished a pleasant evening meal. I would be inclined to

9. relax in the warm glow of well-being.
10. appreciate how wonderful this person is to me.
11. read that book I've been meaning to get to.
12. use the time to plan our next project and set priorities.

13. be especially sensitive to any disturbances in our relationship.
14. speculate on where we might spend our vacation.
15. help with the dishes and putting the house in order.
16. daydream about the future.

Situation #3

If I had to come up with a suggestion for improving schools in my community, I would

17. clarify my objectives and outline a step-by-step progression toward my goals.
18. suggest the kind of activities I would enjoy in my school.
19. suggest that we as a group examine the causes of our difficulties and determine what ought to be done about them.
20. respond to what the students like.
21. study carefully the present school budget and course of studies.
22. work on a fact-finding committee that would check on possible leakage of funds in such places as the cafeteria, bookstore, etc.
23. look at the problems from a variety of perspectives.
24. brainstorm with others to envision original ways of raising money for the schools.

1	2	3	4	5
never	occasionally	about half of the time	usually	always

Situation #4

I see a report on television about a catastrophe in a distant land. I would

25. volunteer to contact my neighbors for contributions for relief for the victims.
26. advocate a commission to inquire into exactly what occurred and what the situation is now.
27. experience it almost as a personal tragedy.
28. estimate the high cost to life and property.
29. read the paper for further details.
30. wonder what I would do if I were caught in such a situation.
31. discuss the need to work out a disaster plan for our own community.
32. watch with interest all the television coverage.

Situation #5

I come home after a hard day at work, tired and depressed. I would be likely to

33. get away from the others and try to figure out what went wrong.
34. go with someone for entertainment such as dinner and a show.
35. phone a co-worker to discuss the problems that arose during the day, and try to determine together what caused them.
36. share with others the things that are bothering me.
37. imagine what things could be like at work if we could do some of the things a few of us have talked about.
38. reflect on how I might change my way of handling things.
39. ask myself if I really want to keep working there.
40. get something to eat and stretch out on the couch.

Situation #6

We've had three weeks of intolerable weather. I look out the window on a weekend morning and see more of the same. I would

41. thumb through the travel section of the paper and clip articles on likely spots to visit.
42. entertain myself at home with my favorite situation comedy television programs and good music.
43. use the time to do some paper work that I should have done long ago.
44. start some projects that need to be done around the house and get others to help.
45. decide I might as well enjoy it and invite some friends to dinner.
46. play a game like blackjack or poker.
47. call up some friends to join me in some physical sport.
48. speculate on where I could live where I would not have to endure this.

Situation #7

I am aware I do not have as much control as I would like over a certain habit (for example: smoking, alcohol, drugs, overeating, overworking). My response to this insight would be to

49. set up a daily plan to reward myself as I change my behavior.
50. become depressed and blame myself.
51. examine what causes me to fall into this pattern.
52. seek professional help.
53. become aware of what I'm doing to my body.
54. join a self-help group that records people's progress regularly.
55. wonder if I can change.
56. worry about what other people are thinking of me.

Situation #8

If I had the opportunity to engage in any vocation I would like, and training for it were available, I would choose to

57. work at selling people on the value of my product.
58. work with a skilled crew building or repairing equipment.
59. seek a position that feels just right to me.
60. work in an environment with people who would stimulate each other to be creative.
61. be in a position where I could organize my work for maximum efficiency.
62. work independently in a pleasant environment.
63. be a member of a problem-solving team.
64. work alone with figures, computers, or other instruments allowing exact methods and answers.

Situation #9

I wake up in the night. The fire alarm is going off and I smell smoke. Someone is in the next room. I would

65. see all the possibilities for escape and act as fast as I can.
66. call the fire department immediately and give them my name, address, telephone number, and nearest cross streets.
67. determine the source of the fire and take practical measures to put it out—if possible.
68. fear for the person and rush to the rescue.
69. try to put out the fire by any means at hand.
70. check the routes of escape.
71. be frightened for my safety.
72. follow the guidelines issued by the fire department.

1	2	3	4	5
never	occasionally	about half of the time	usually	always

Situation #10

My family is loving and supportive, but they don't understand what I am going to do. I would

73. let them see how I have already worked out all the practical details.
74. stick to my own beliefs no matter what anyone says.
75. point out to them the possibilities for me if I follow this course of action.
76. acknowledge to them that because there are both pros and cons to this undertaking, it requires careful consideration.
77. want them to appreciate the value of this undertaking.
78. help them to visualize how it will affect them in the end.
79. give them the names of people involved in this to strengthen my position.
80. explain that I have not done this in the past but should do it now.

Situation #11

I am obliged to work on a project with a co-worker I don't like. I would

81. concentrate my efforts on the project, not the person.
82. keep quiet and leave the situation doing as little damage as possible.
83. try to determine ways in which we can reasonably work together.
84. talk with this person to find out how we can get along better.
85. recognize each of our skills and divide the labor accordingly.
86. tell my co-worker what it is like when we work under these conditions.
87. have great personal difficulty in getting past my objections.
88. say, "Let's find a way to get it done no matter what."

Situation #12

I have just been told on the telephone that someone very close to me has died suddenly. I would

89. be shocked and express my sadness to the person who called.
90. suggest practical ways I can help with the arrangements.
91. go off by myself and have a good cry.
92. wonder what the long-range effects of this person's death will be.
93. inquire about the funeral arrangements.
94. begin imagining how this will change my life.
95. arrange a telephoning plan to notify relatives and friends.
96. recall how the person looked the last time we were together.

Situation #13

I am going shopping to buy some clothing for myself. My budget is limited. I would

97. try to picture how I would look in these clothes.
98. choose colors that coordinate with what I already own.
99. consider the salesperson's views before I buy anything.
100. select something fashionable that will impress my friends.
101. visualize myself wearing an outfit that would win admiring glances.
102. sit down and plan what I need and budget how much to spend on each item.
103. know immediately what would look good on me.
104. choose something that suits my lifestyle.

Situation #14

I wake up feeling sick. I have several commitments for today. I would

105. Stay in bed and pay attention to my body.
106. give in to my feelings because it is the right thing to do under the circumstances.
107. consider the pros and cons of cancelling my commitments.
108. phone someone to take over and explain exactly what needs to be done.
109. ask for a little tender loving care.
110. lie there and wonder what is happening where I am supposed to be.
111. call the doctor to relate my symptoms and recall their history.
112. worry that perhaps some people will think I am not able to do my job and that maybe they will find someone else.

Situation #15

I am involved in an argument with an older member of my family over something I want to do, but that person disapproves. I would

113. consider the other person's arguments and weigh the evidence before I act.
114. do what seems best to me despite what the other person says.
115. present reasons why my position is justified.
116. modify my position to keep peace in the family.
117. gather together all the facts and then point them out.
118. explain in detail what the results will be if I do what I have proposed.
119. worry about what might happen if I don't get my way, and try to think up some alternatives.
120. point out, using many examples, that my friends and other people are doing this.

APPENDIX E

SLIP Experiment Debriefing

The purpose of this research is to examine the effectiveness of a new personality inventory in measuring Carl Jung's theory of personality types. Jung's theory is based on the notion that personality can be measured along several dimensions. These include:

extroversion- direction toward the objective, physical world
 introversion- direction toward one's inner, subjective reality
 feeling- organizes and judges according to personal values
 thinking- reaches decisions through logical step-by-step deliberations
 sensation- perception by means of the senses
 intuition- integrates information received subliminally from either
 the physical world or from the inner, subjective realm

Together, these dimensions form what is termed one's personality type. They all exist in different degrees of development in all of us. This new inventory, called the Singer-Loomis Inventory of Personality (SLIP) measures these personality dimensions independently. This independent measurement is something that other instruments measuring Jungian typology don't do.

This study will also examine the influence to one's personality type, as measured by the SLIP, on moral decision making and sex-role orientation. Some theorists argue that because men and women develop differently, they approach moral decision making differently. That is, men and women may identify different moral issues as being important. This was measured by the Defining Issues Test which asks for a ranking of the issues seen as most important in solving a moral dilemma.

The third questionnaire, the Bem Sex Role Survey, measures one's sex-role orientation. Sex-role orientation can be defined as being:

masculine- outlook on getting the job done
 feminine- care and concern for the welfare of others
 androgynous- flexibility in being able to adopt a sex-role seen
 as being most appropriate to the situation
 undifferentiated- low measurement on both the masculine and
 feminine orientation.

This measure will also be used to examine the influence of sex-role differences on moral decision making.

If you are interested in learning more about this area of research, you can contact me at 262-8271. My name is Holly Houston and I am an upper class graduate student in clinical psychology. I am conducting this research for my dissertation. When the results are analyzed, I will gladly share them with you upon request.

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In addition, you may wish to read Kohlberg's theory of moral development which can be found in most introductory and developmental psychology text books. Other references include:

BEM, Sandra. (1974). The Measurement of Psychological Androgyny. Journal of Consulting and Clinical Psychology, Vol. 42 (2), 155-162.

LOOMIS, Mary and SINGER, June. (1980). Testing the Bipolarity Assumption. Journal of Analytical Psychology, Vol. 25 351-356.

Thank You for your participation.

Holly Houston, M.A.

APPROVAL SHEET

The dissertation submitted by Holly O. Houston has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

10-24-88

Date


Director's Signature