

**THE ASSOCIATION OF SEX, SEX-ROLE, AND SEX OF
PROTAGONIST WITH LEVEL OF MORAL JUDGEMENT**

by

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submitted to Saint Mary's University
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in
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**DEPARTMENT OF PSYCHOLOGY
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A thesis submitted to the Department of Psychology

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ABSTRACT

THE ASSOCIATION OF SEX, SEX-ROLE, AND SEX OF PROTAGONIST WITH LEVEL OF MORAL JUDGEMENT

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June 23, 1987

The aim of the present study was to examine the impact of sex, sex-role, and sex of protagonist on moral judgement. Subjects for this study consisted of 80 female and 80 male undergraduate students (mean age = 20.3 years). Test instruments consisted of a demographic questionnaire, the Bem Sex-Role Inventory, and Rest's Defining Issues Test (DIT: original and sex-reversed forms). The principal study design was a two (sex) by two (sexrole: androgynous vs. sex-typed) by two (sex of protagonist) analysis of variance on level of principled thinking. Results did not support the notion that the DIT is biased in favour of men, and that women are disadvantaged by the male set of protagonists. Sex differences in decision making were noted. Generally, sex-role emerged as the more significant variable in relating to aspects of moral judgement. Implications of this study include: 1) developing a more sensitive moral judgement test of subjects' moral orientations; 2) more systematic study of sex differences in decision making; 3) exploring the value of masculine traits in coping with moral dilemmas; and 4) experimenting with alternative sex-role measures.

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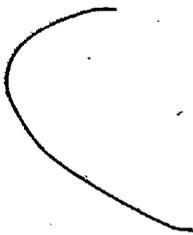
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THE ASSOCIATION OF SEX, SEX-ROLE AND SEX OF PROTAGONIST WITH LEVEL OF MORAL JUDGEMENT

The issue of sex differences in moral judgement has long been a contentious one. Moral judgement can be defined as the evaluation of right and wrong on the basis of one's moral belief system (Lifton, 1985). While early developmental theorists claimed that women were morally inferior to men (e.g. Freud, 1925; Piaget, 1932), recent review studies show sex to be a nonsignificant variable in predicting level of moral judgement (Rest, 1979; Walker, 1984). Still, other theorists maintain the position that the moral orientation of women is different, but not inferior, to that of men and that the "feminine" position has been devalued in theories and tests of moral development (e.g. Gilligan, 1982; Lyons, 1983). Moral orientation refers to the predominant moral belief of a person at any or all points in time (Lifton, 1985).

The term "sex differences" connotes differences due primarily to inherent biological and physiological differences between the sexes (Lifton, 1985). The significance of *sex-role* has also been studied in relation to moral judgement. Differences due to sex-role are presumed to reflect psychological and sociological distinctions between men and women and are thought to be products of parental and societal sex-role socialization practices and expectations (Lifton, 1985). Although many studies of "sex differences" do not make a such a conceptual distinction, it is useful to do so in trying to understand the origin(s) of such differences.

Studies examining the interaction of sex-role with moral judgement have yielded inconsistent results. In some cases, level of moral judgement is found to increase with less sex-stereotyped thinking (e.g Leahy and Eiter, 1980) while other studies report no such significant interaction (e.g Bussey and Maughan, 1982).

A third sex-related variable that has been studied in relation to level of moral judgement is the sex of the protagonist in tests of hypothetical moral judgement. Hypothetical moral judgement refers to moral judgement based upon hypothetical or fictitious moral dilemmas rather than dilemmas based upon real-life experience. More specifically, sex of protagonist refers to the sex of the principal story character who is faced with a moral dilemma in certain tests of moral judgement. A moral dilemma refers to a situation where goals, plans, desires, and expectations of people are in conflict (Lifton, 1985). It has been argued that the exclusively male cast of protagonists in these moral dilemmas may exert a biasing effect on the responses of female subjects (e.g Bussey and Maughan, 1982; Holstein, 1976; Maccoby and Jacklin, 1974). Results of studies examining this hypothesis have been inconsistent, some reporting significant interactions (Bussey and Maughan, 1982; Orchowsky and Jenkins, 1979) and others not (e.g Garwood, Levine, and Ewing, 1980).

In summary, it is as yet unclear as to the extent of the influence of such variables as sex, sex-role, and sex of protagonist on level of moral judgement. This investigation sought to replicate and extend previous findings in order to clarify relationships among these variables and to test their strength and

consistency.

Before proceeding with the literature review the background for the problem will be outlined with a view to providing a meaningful frame of reference for the study.

Background

Several authors have noted the tendency of developmental theorists to construe and adopt male norms as the most appropriate and desirable in constructing and testing theories of psychological development (Gilligan, 1977, 1982; Miller, 1983; Surrey, 1985; Weisstein, 1969). It was frequently the case that when girls or women did not conform to these preset male standards their development was labelled deviant and/or inferior. As Gilligan (1982) points out, "...a problem in theory became cast as a problem in women's development..." (p.

7).

Freud's (1905) theory of psychosexual development, for example, is constructed entirely from the experience of the male child. Freud came to acknowledge, however, that girls, due to differences in anatomy and early family relationships, did not fit into his masculine conception. He attempted to resolve this contradiction by labelling the difference in women's development as responsible for their developmental failure. Without castration anxiety women, were biologically deprived of the desire for an appropriate Oedipal resolution. As a result, Freud thought the superego in women to be compromised in relation

to those of their male counterparts

Erikson's (1950) scheme of the eight stages of psychosocial development provides another illustration of the way in which the male experience has defined the optimal developmental sequence. During the adolescent stage men experience identity before intimacy and generativity, while women appear to experience identity through intimacy. Although Erikson (1968) acknowledged these sex differences his map of life-cycle stages did not accommodate the reality of women and continues to be defined by male experience.

In the specific area of *moral* development male norms were likewise accepted as ideal standards by which to evaluate female performance. Moral development refers to the transition of a person's moral beliefs over time (Lifton, 1985). Freud (1925), for example, equated morality with justice, both of which he labelled as functions of the superego. Based on his belief that the superego is more clearly defined in male, rather than female, development Freud concluded that women were morally inferior to men, being more influenced by emotions and demonstrating a lesser sense of justice.

Piaget (1932) similarly identified morality with justice. He observed that boys were very preoccupied with game rules and with fair procedures for resolving conflicts that might arise. Girls, in contrast, seemed to have a more relaxed and flexible attitude toward rules, and thus were more willing to make exceptions. On the basis on these observations, Piaget concluded that girls have a less developed legal sense than boys, a sense which he considered pertinent to moral development.

Recently, these theorists and others have been charged with sex bias. Gilligan (1977, 1982), for example, claims that women generally differ from men in terms of moral orientation and that the feminine position has been devalued in theories and tests of moral development. Much attention (e.g. Bussey and Maughan, 1982; Gilligan, 1982; Holstein, 1976; Lyons, 1983) is currently being devoted to the possible negative implications of this male bias in research and theory in the area of moral development/judgement in terms of women's moral concerns not being adequately and/or fairly represented. It remains to be established whether or not it is appropriate to implement a universal (male) standard of moral development and a single scale of measurement along which differences found among groups can be considered higher or lower, better or worse (Gilligan, 1982).

Literature Review

Sex Bias in the Measurement of Moral Judgement

Charges of sex bias have been notably put forth in relation to such tests of moral judgement as Kohlberg's Moral Judgement Interview (MJI) (Colby, Gibbs, Kohlberg, Speicher-Dubin, and Candee, 1981) and Rest's Defining Issues Test (DIT) (1974). The important characteristics of these two tests will be described briefly following which the issue of sex bias will be outlined more thoroughly.

Before describing the DIT, the measure to be employed in this study, it is

useful to elaborate on Kohlberg's MJJ as Rest's technique is derived from the latter. In Kohlberg's view, morality is a philosophical and not merely a behavioural concept (Kohlberg, 1969). This means that an individual's point of view and intentions are crucial to evaluating his or her morality. Kohlberg's cognitive-developmental stage theory of moral development is constructed from longitudinal data based upon an adolescent male sample (Kohlberg, 1981). He developed a sequence of six stages to describe moral development from childhood to adulthood (Kohlberg, 1981). These will be briefly outlined. In the first stage of morality, a punishment and obedience orientation, right and wrong depend on external rewards and punishment. Stage two is characterized by a naive instrumental hedonism where the right is defined as what is maximally pleasurable for the individual. Stage three morality is described as a "good boy" or "good girl" morality of maintaining good relations with and concern for approval of others. Stage four is characterized as an authority maintaining morality where law and order dictate right and wrong. The morality of Stage five is one of contract, individual rights, and democratically accepted law. Finally, Stage six corresponds to a morality of individual principles of conscience.

Kohlberg's simple stage model asserts that only qualitative, not quantitative, changes have significance in terms of progressing from stage to stage (Rest, 1979). Other characteristics of Kohlberg's model include stage unity, wherein the various components of a stage should be integrated although minor discrepancies may occur; step by step invariant sequence, wherein individuals progress to higher stages one at a time always in the same order; and an error

free, context-independent assessment of moral stage development (Rest, 1979). Kohlberg's method of assessing moral judgement involves presenting the subject with various types of moral dilemmas concerned with such issues as individual versus societal rights, political and religious beliefs, rehabilitation versus punishment of criminals; contraception and abortion etc. The subject is interviewed, in an open-ended fashion, according to a standard set of questions. She or he is required to verbally justify solutions to the moral dilemmas and her or his level of moral development is then classified as belonging to a particular stage in the sequence.

According to Rest (1979), there are several serious-consistent problems with the simple stage model. First, subjects are not always clearly in one stage or the other, and tend instead to fluctuate. Second, inconsistencies due to test characteristics can make a significant difference in terms of how subjects organize their responses. For example, some moral dilemmas tend to "pull" for a certain stage more than others. Third, there is the issue of stage mixture in moral judgement scores. Although Kohlberg's new scoring system is designed to maximize stage purity, it is also somewhat biased toward producing stage unity in doing so. Finally, Rest criticizes Kohlberg's interview method which requires the subject to spontaneously produce and justify his or her responses. Difficulties can arise in trying to interpret what subjects are saying, especially when they are indecisive or not explicit enough. Individual differences in verbal expressiveness can result in a scoring difference of several stages. A study by Rest, Turiel and Kohlberg (1969) suggests that subjects prefer statements at

stages higher than the ones they can paraphrase. Hence, interviewing may be confounded by many factors.

Essentially, Rest's DIT is more similar than different to Kohlberg's scheme in terms of overall conceptualization. Both measures have three comparable moral dilemmas between them. The DIT also has six stages whose core characteristics are directly borrowed from Kohlberg's. Nonetheless, Rest proposes a more complex developmental model which stresses the quantitative aspects of thinking. Instead of asking "What stage is a person in?", one would ask "To what extent and under what conditions does a person manifest the various types of organization of thinking?"

According to Rest, developmental assessment is probabilistic rather than definitive for the reasons outlined above. Other problems with stage typing is that it may lead to important information being discarded, such as, how much of other stages a subject preferred. In addition, stage typing assumes that either initial or maximum usage of a stage is the most important thing to know in terms of gaining information regarding one's level of moral development. Rest also criticizes the notion that moral thinking develops via a step by step path. Striking stage mixtures render it difficult to consider a subject at a single step at any particular time. Rest asserts that, rather than moving one "step", a subject may advance in several organizations of thinking simultaneously. This challenges the notion that each stage has a period of predominance with ascending and descending slopes of each stage curve being symmetrical.

Overall, the DIT answers the need for a practical validated method for

assessing moral judgement. Reliability studies (both test-retest and internal consistency) performed on the DIT demonstrate reliabilities in the upper .70s and lower .80s for the two most frequently used scores (Rest, 1979). Concurrent validity studies show the DIT to correlate in the .40s with a measure of general aptitude, in the .60s with a measure of comprehension of moral concepts, in the high .40s or .50s with a measure of law and order orientation, and in the .50s or .60s with a measure of political tolerance (Rest, 1979).

The DIT is easy to administer and score and ensures comparability of results. In the DIT subjects are required to define and judge the crucial issues in moral dilemmas by rating and ranking statements in terms of the importance of each consideration in making a decision. Rest's reformulation of Kohlberg's six stage scheme is as follows (note that stages are subdivided if they can be manifested in different ways): 1) morality is equated with obedience; 2) an act is right if it benefits the actor; 3a) an act is good if it is based on a prosocial motive; 3b) being moral implies concern for the other's approval; 4a) right is defined by categorical rules, binding, and shared expectations which provide a basis for social order; 4b) values are derived from and subordinated to the social order and maintenance of law; 4c) respect for authority is part of one's obligation to society; 5a) a moral obligation derives from voluntary commitments of society's members to cooperate; 5b) procedures exist for selecting laws that maximize welfare as discerned in the majority will; 5c) basic rights are preconditions to social obligations; 6) what is moral is how rational and impartial people would organize social cooperation.

According to Gilligan (1977, 1982), Kohlberg's use of a male only sample to develop a supposedly universal theory of morality is reflective of a biased methodology. Any deviation from the norm is bound to be criticized as inferior. With regard to Kohlberg's scale, some studies have reported that women are more likely to fall within the third stage of moral development (representing concern for approval and pleasing and helping others), while men usually score at the fourth stage (law and order prevail over concern about relationships) (e.g. Bussey and Maughan, 1982; Holstein, 1976). It is argued that the characteristically female concerns for welfare, caring, and responsibility should not be considered inferior to the predominantly male orientation toward justice and separation (Holstein, 1976; Gilligan, 1982).

It has since been demonstrated, however, that sex differences in moral judgement on tests of the Kohlbergian type are negligible. Walker (1984), for example, performed a meta-analysis on studies of sex differences in moral reasoning which employed Kohlberg's test with child, adolescent, and adult populations. He found that, overall, there were nonsignificant sex differences in moral judgement. When sex differences did appear Walker reported that this was due to the fact that subject samples were not properly controlled for education and occupation. Early stage definitions and scoring procedures were also partly responsible for these differences.

In terms of the DIT, a review by Rest (1979) showed that only two out of 22 studies demonstrated sex differences where females attained higher moral judgement scores than males. In addition, only six percent of the variance could

be accounted for by the sex variable. The remaining 20 studies demonstrated no significant sex differences in P score (level of principled moral judgement, that is, the relative importance given to Stages five and six) between males and females. Rest concluded that there is no evidence warranting the conclusion of sex bias in the DIT. Other studies using modified versions of the Kohlberg or Rest measures or other tests of hypothetical moral judgement have also failed to find significant sex differences (Gibbs, Arnold, and Burkhart, 1984; Levine, 1976; Pratt and Royer, 1982; Pratt, Golding, Hunter, and Sampson, in press; Waterman, 1982;). In view of the literature, particularly the reviews by Rest (1979) and Walker (1984), the first prediction of this study was that no significant sex differences will occur on Rest's DIT.

Sex-Role Identification

Sex-role identification can be defined as the degree to which a person (male or female) endorses typically masculine, feminine, or androgynous personality characteristics (Bem, 1974). The concept of "androgyny" implies that an individual may act in accordance with *both* masculine and feminine personality characteristics depending on the particular situational demands (Bem, 1974). On the other hand, a person who is strongly sex-typed might be more limited in terms of what behaviours are available to her or him in a given situation. In other words, such an individual may act in either masculine or feminine ways rather than selecting a behaviour on the basis of particular situational demands.

A study by Leahy and Eiter (1980) investigated the relationship between moral judgement, as measured by the DIT, and development of real and ideal androgynous self-image, as measured by the Bem Sex-Role Inventory (BSRI) (Bem, 1981). Based on the cognitive and ego development theories of Kohlberg (1966, 1969) and Loevinger (1966, 1976), respectively, it was hypothesized that subjects at higher stages of moral development would incorporate more aspects of the opposite sex in their real and ideal self-images than subjects at lower stages.

Kohlberg's claim that moral judgement and sex-role self concept develop in parallel implies that the latter may change as level of moral judgement increases. Both Stages five and six represent post-conventional moral judgement. Stage five is characterized as a social contract morality where rules are viewed as arbitrary and open to mutual agreement or change (Rest, 1979). At Stage six, known as individual principled morality, rules are based on universal principles of conduct wherein valued behaviour may come into conflict with conventional stereotypes (Rest, 1979). In other words, subjects who have attained a post-conventional level of moral judgement may not be as dependent on sex roles or stereotypic expectations of others.

Similarly, Loevinger's (1966, 1976) ego development theory suggests parallel development of ego, or moral development stages, and sex role self concept. According to Loevinger, the higher stages of ego development (conscientiousness, autonomy, and integration) correspond to the post conventional level in Kohlberg's theory. In addition, they are characterized by

differentiation and integration of the conflicting aspects of self. A study by Block (1973) investigated the relationship between moral judgement, ego development, and self-concept in college students. She found that post-conventional and conscientious subjects tended to describe themselves in both agentic (self-assertive; "masculine") and communal (relating to others; "feminine") terms. Block concluded that higher levels of developmental functioning are associated with more "androgynous" self-images. The dichotomy of agency and communion is not entirely equivalent, however, to conventional notions of masculinity and femininity.

Results of the Leahy and Eiter (1980) study showed that subjects at higher stages of moral judgement or with a greater percentage of post-conventional moral judgement were more apt to report aspects of the opposite sex in their self-images. This finding was significant for both adolescent and college age females and for college age males. The authors conclude that these results lend support to the cognitive and ego development models predicting increasing androgyny or a decrease in sex-typing with increased levels of moral or ego development.

In a recent study exploring the relationship between sex-role identification and level of moral reasoning, Bussey and Maughan (1982) hypothesized that perhaps it is the adoption of the feminine role and not the sex of an individual per se that is responsible for the lower level of morality attributed to women. This feminine role is equated with an expressive orientation emphasizing the giving and receiving of affection which is consistent with Stage three type

responses on the Kohlberg and Rest scales. The authors predicted that both males and females who adopted such a role would be relegated to a lower level on the Kohlberg Moral Maturity Scale. They found that the sex-role factor did not attain significance as a main effect. The authors concluded that either the sex-role of the subject is not important for judgements on Kohlberg's scale or else the instrument they used to measure sex-role is not sensitive enough.

A recent study by Pratt, Golding and Hunter (1984) investigated the relationship between sex-role self-concept and moral judgement as measured by the BSRI (Bem, 1981), Personal Attributes Questionnaire (PAQ) (Spence and Helmreich, 1978) and Kohlberg's MJT (Colby, 1981), respectively. Results support the findings of the Leahy and Eiter (1980) study. In general, development of a principled level of moral thinking was found to be closely related to an increase in self-reports of opposite sex traits as measured by the PAQ. This finding appeared to be especially significant for men.

It is clear that the findings from the Bussey and Maughan (1982) study are inconsistent with the results of the studies by Leahy and Eiter (1980) and Pratt et al. (1984). A second objective of the present study, then, was to reexamine the impact of psychological gender on moral reasoning as measured by the Bem Sex-Role Inventory (BSRI) (1981) and Rest's DIT (1974), respectively.

Sex of Protagonist

The third variable that will be examined for its relationship with level of moral judgement is the sex of the protagonist in the hypothetical moral dilemmas in the DIT. Several authors have argued that the Kohlberg/Rest technique may be biased in favour of men due to the fact that all of the principal story characters are male (Bussey and Maughan, 1982; Holstein, 1976; Maccoby and Jacklin, 1974). These authors suggest that males may more readily identify with the protagonist and consequently attain higher levels of moral reasoning.

Conversely, females may not be able to identify as completely with male protagonists which may account for their lower scores on moral development scales.

A study by Orchowsky and Jenkins (1979) sought to test the hypothesis that sex bias exists in the measurement of moral judgement due to the exclusively male principal characters in the hypothetical stories. College-age men and women completed either the standard short form of the DIT or a sex-reversed form wherein each of the main story characters was a woman. There were no significant main effects for sex and form, nor were there significant differences in terms of the believability and identifiability of the male versus the female protagonists. A significant interaction did emerge, however, between sex and form. More specifically, males who completed the sex-reversed form attained higher P scores (levels of principled thinking) than males who took the regular test with male protagonists. In contrast, females who completed the

sex-reversed form with female protagonists attained lower scores than females who took the regular test. Interestingly, these results are in the direction opposite to that predicted by the initial hypothesis. The authors state that while the DIT does not appear to be biased in favour of males, the sex of the main story characters seems to be a confounding variable in the measurement of moral judgement using this test.

A study by Garwood, Levine, and Ewing (1980) also investigated the effect of the protagonist's sex on mens' and womens' performances on the DIT. The results of the Garwood et al. study do not parallel those of the study by Orchowky and Jenkins (1979). First, a significant main effect due to sex occurred with respect to level of moral reasoning. Females scored significantly higher than males for Stage five and P and D scores and males scored higher than females on Stage three reasoning. The D score is an overall index of moral judgement development which uses information from all stages rather than from Stage five and six items only. A high D score signifies that the subject gave high ratings to high stage items, while a low D score indicates that high ratings were given to low stage items. The second anomalous finding occurred with respect to the lack of a significant sex by form interaction. In other words, the sex of the protagonist did not differentially affect levels of moral reasoning in males and females. On the basis of this finding, the authors concluded that the charge of a sex bias due to protagonist's sex was not supported. They suggest that if a bias does exist it may be due to another source such as learned sex roles. Stages two and four reasoning include elements of aggression and

power, traits more typically associated with males than females (Maccoby and Jacklin, 1974). Stage three reasoning, on the other hand, is more compatible with females' traditional expressive role (Holstein, 1976). The fact that males scored higher on Stage three reasoning in this study, however, does not support this hypothesis.

The hypothesis that women may be at a disadvantage when responding to dilemmas with solely male principle characters was also tested by Bussey and Maughan (1982). The authors proposed that males may be more able to identify with the protagonist in the stories and hence score higher on moral development scales. In this study, this hypothesis was tested using Kohlberg's measure, and a sex-reversed version was created so that the central character in each moral dilemma was a woman. The authors hypothesized that males would score higher on the unrevised Kohlberg scale, and that females judging from the altered version would score higher than females completing the regular test.

Results showed that male subjects performed significantly better than female subjects on the regular version of the test. More specifically, men reached an asymptote at Stage four and females at Stage three. This finding was predicted from the initial hypothesis. For the female protagonist, however, there was no significant difference between the morality scores for men and women. Both male and female subjects completing the sex-reversed version tended to score at the Stage three level. This finding was not expected and is of great interest. First, women did not experience any noticeable advantage in taking the test with female protagonists. Second, men dropped down an entire stage when judging

from the perspective of female protagonists. The authors suggest that male adherence to cultural stereotypes about women might explain why male subjects dropped down a stage when judging from a female perspective. More specifically, male subjects most likely interpreted the female characters' actions as reflecting emotional and expressive concerns, both of which are represented by Stage three. That women did not perform any better when judging from a female perspective indicates that women are also affected by the stereotypes of the "emotional" female and the "instrumental" male.

The authors also point out that these results are consistent with Hoffman's (1975) view that males are more responsive to external cues when judging moral transgressions, while females respond more on the basis of their internalized moral values. Males might be more likely, then, to respond to such external cues as the sex of the principal character and offer different reasons for the character's behaviour depending on its sex. The authors conclude that Kohlberg's theory is not free from contextual bias and that Kohlberg has minimized the effect of socialization practices on moral thought.

The results of the three studies outlined above are clearly inconsistent with each other and a reexamination of the hypothesis is warranted. The experiment by Garwood et al. (1980) shows no effect of protagonist's sex, while the research of Bussey and Maughan (1982) and Orchowsky and Jenkins (1979) and demonstrate effects but in different directions. The third objective of this study, then, was to replicate the experiment of Orchowsky and Jenkins (1979) using the longer version of the DIT, as the short form is known to have poorer reliability

(Rest, 1979).

Bussey and Maughan (1982) also examined the relationship between sex-role identification, sex of protagonist, and level of moral judgement. They predicted that the moral judgement scores of androgynous individuals would not be affected by the sex of the main story characters in Kohlberg's dilemmas. This hypothesis was based on the claim that androgynous persons have integrated both masculine and feminine qualities. Results indicated, however, that the sex-role variable failed to produce a significant main effect and also failed to interact with form of test and moral judgement scores. The above hypothesis will nonetheless be tested in the present study as a different measure of moral judgement will be employed, and the number of subjects per cell will be greatly increased, thereby increasing the power of the study.

Implications of Study

Before proceeding to the specific hypotheses for the study the implications for significant or nonsignificant interactions among the relevant variables will be addressed.

Sex and Level of Moral Judgement

If sex interacts significantly with level of moral judgement, showing females to perform at a lower stage than males, this result would support theories that men

and women approach moral problems differently. In addition, claims that the DIT is biased in favour of "male" moral reasoning would also receive support.

According to Rest (1979), however, even if a consistent sex difference did appear on the DIT this would not necessarily imply a sex bias in the measuring instrument. Differences, on the other hand, may be indicative of actual differences between groups. In other words, one cannot assume that differences are due solely to defects in the test itself.

In response to the argument that women's moral concerns are unfairly scored at a lower stage Rest (1979) states that even if it were true that more women than men shared these concerns, this would not signify that such thinking is mature and adequate for all types of moral problems. In other words, even if culturally stereotyped female thinking is represented by Stage three, for example, this would not dismiss the problems that Stage three has in managing moral dilemmas involving conflicts in sympathies. Rest states that it would have to be shown how such stereotyped female thinking provides appropriate solutions for dealing with complex problems, more so than other stages. Finally, Rest points out that the construct of moral judgement represents "the adequacy of conceptualizing solutions to moral problems" and "[moral judgement] is not intended to be a rating scale of compassion or kindness or self-sacrifice" (p. 124).

Further research would need to elucidate which type of moral orientation was more functional and for what types of problems. If Stage three thinking did prove to be adequate for a variety of moral dilemmas then the notion of a sex bias

- existing in the measuring instrument would be supported.

If sex and level of moral judgement proved to yield a nonsignificant interaction, this would appear to reflect a lack of sex bias in the test instrument. Furthermore, it might be argued, on the basis of such a result, that the moral judgements of men and women are similar and that theories and studies espousing differing moral orientations for each sex (e.g. Gilligan, 1982; Lyons, 1983) are not supported. Such a conclusion would be premature, however, in view of the limitations of the present study. To illustrate, although no overt differences in moral stage may occur between men and women on the DIT, subtle differences between the sexes may exist in terms of moral orientation. The DIT may not be equipped to measure or evaluate such distinctions. According to Gilligan (1982), men are oriented toward a concern for justice while the moral orientation of women reflects a concern for care and responsibility. Studies by Lyons (1983) and Pratt, Golding, Hunter, and Sampson (1985) support such a distinction although the emergence of sex-linked orientations may have been inadvertently biased by the different personal moral dilemmas that men and women chose to discuss (Pratt et al., 1985; Walker, 1986).

Sex-role and Level of Moral Judgement

If sex-role proves to interact significantly with level of moral judgement this would lend support for Kohlberg's theory that moral judgement and sex-role self-concept develop in parallel. More importantly, perhaps, such a finding may

indicate that one's reported degree of sex-stereotyped traits may be a more salient factor in predicting level of moral judgement than sex per se. This, in turn, would highlight the importance of the social context in impacting on one's moral thinking. The need to distinguish between sex and sex-role when evaluating "sex differences" in moral judgement would also be emphasized.

The absence of a significant interaction between these two variables would place more stress on biological sex as the important influence on moral judgement (assuming a significant interaction between the latter two variables) and would call Kohlberg's theory into question. Alternatively, the concept of "sex-role" and/or its measurement may need to be reevaluated in terms of the reliability and validity of either or both.

Sex of Protagonist and Level of Moral Judgement

The implications of a significant interaction between sex of protagonist and level of moral judgement are several, depending on the particular type of interaction. If, for instance, female subjects attain a lower P score when judging from the perspective of male, as opposed to female, principal characters this would likely imply the existence of a sex bias in the measuring instrument. The argument here would be that women are unable to identify as easily and completely with male characters. A need to balance the sexes of the protagonists would be indicated in order to rectify such a bias.

According to Rest (1979), however, such a finding could not independently

establish or prove the existence of such a bias in the test. It could, at most, establish how a sex bias might have entered into the system.

A second possible finding is that men will perform better when judging from the perspective of female protagonists while women attain higher scores with male protagonists, as in the study by Orchowsky and Jenkins (1979). Although such a finding would not support the presence of a sex bias against women, it would certainly indicate that the sex of the principal moral dilemma characters is a variable confounding the moral judgement scores of subjects. Once more, some sort of balancing or neutralizing of the sex of the protagonists would be warranted.

Third, male subjects may score lower (e.g. Stage three) from the perspective of female protagonists while female subjects score at this stage regardless of the sex of the principal dilemma characters, as in the study by Bussey and Maughan (1982). As previously noted, such a finding may be a reflection of the cultural stereotype that both men and women hold, of women being more "emotional" than men.

It is important to note that the emergence of any of the above three possible results would indicate that cognitive/developmental tests of moral judgement such as the DIT are not free from contextual bias. Context here refers to the seemingly minor issue of whether the protagonist facing the moral dilemma is male or female. This would challenge the notion of the universality of tests of the Kohlbergian type. The role of socialization practices in influencing moral thought would need to be addressed more seriously.

Alternatively, if men and women perform equally well on both versions of the DIT (i.e. no interaction between the variables), as in the study by Garwood et al. (1980), the contention that the all-male cast of protagonists is a source of sex bias would not be supported.

Finally, the hypothesis that the sex of the protagonist will not matter to "androgynous" individuals offers another possible interaction. Support for such an interaction would once again highlight the need to measure sex-role self-concept in studies utilizing tests such as the DIT in order to control sex-role as a confounding variable. Alternatively, a balancing of the sex of protagonists would likely eliminate such an interference effect. Non-support for the above hypothesis could indicate that either the sex-role adopted by the subject is not relevant to judgements on the DIT or else the instrument used to measure sex-role is not sensitive enough (Bussey and Maughan, 1982).

Hypotheses

(1) *Main effects*

- (a) Male and female subjects will not differ in level of moral judgement (no main effect of sex).
- (b) Level of moral judgement on the regular version of the DIT will not differ from that on the sex-reversed form (no main effect of form).
- (c) Androgynous subjects will have higher moral judgement scores than

sex-typed subjects (main effect of sex-role).

(2) *Interactions*

- (a) There will be a significant interaction between sex and form with males and females performing differently, among and/or between themselves depending on the version of the test.
- (b) There will be a significant interaction between sex-role and form with androgynous subjects attaining similar P scores across both forms, while the P scores of sex-typed subjects will vary across both forms.

(3) *Additional Analyses.*

- (a) The possibility of a three-way interaction between sex, sex-role, and sex of protagonist will be explored.
- (b) Responses to the believability and identification questions will show no differences associated with subject sex, sex-role, and sex of protagonist.

METHOD

Subjects

The subjects for this study consisted of 80 women and 80 men selected from the Saint Mary's University student population. Specifically, the subjects were enrolled in undergraduate psychology or sociology classes. The number of subjects needed for the study was based upon a power analysis. See Appendix A for a thorough description of this analysis.

The mean age of the sample was 20.3 years ($SD = 2.9$) and the minimum and maximum ages were 17.2 and 35.3 years, respectively. Over one half (58.1%) of the sample had not yet completed their first year of university and most (96.9%) held no previous degree. English was the first language for all subjects. Refer to Table 1 (see Appendix B) for a complete description of the respondents on relevant demographic and other variables.

This sample of 160 subjects was divided into the four groups of interest according to the subjects' scores on the Bem Sex-Role Inventory (BSRI): androgynous females ($N=40$), androgynous males ($N=40$), sex-typed females ($N=40$), and sex-typed males ($N=40$). Each of these four groups was further subdivided so that 20 subjects in each group were tested with the regular form of the Defining Issues Test (DIT), while the remaining 20 subjects received the sex-reversed version of the DIT.

Subject Selection

These 160 subjects were selected from a subject pool of 570 subjects. The remaining 410 subjects in this larger group were not appropriate for use in the study due to one or more of the following reasons: 1) The subject's first language was not English; 2) The subject's BSRI masculinity and femininity scores were not reflective of one of the four groups of interest; 3) The subject's BSRI scores were appropriate for the study, but the maximum number of subjects in the particular group of interest was already attained; 4) The subject did not complete the DIT properly; and 5) The subject completed the DIT properly, but failed to meet the reliability standards of the DIT. The group of 570 subjects, including the 160 experimental subjects, consisted of 284 (49.8%) women and 286 (50.2%) men. The mean age of the total sample was 20.4 years ($SD = 3.36$), with the minimum and maximum ages being 16.8 and 43.3 years, respectively. A more thorough description of the sample of 570 subjects can be found in Table 2 (see Appendix C).

All subjects completed the study on a voluntary basis. Incentives to participate were issued in the form of course credits and a lottery for 37.5% of the sample; lottery only for 32.5% of the sample; credits only for 1.3% of the sample; and 28.8% of the subjects received no incentives for participation. The lottery entailed being eligible to win one of three cash prizes (\$25.00, \$15.00, or \$10.00). The decision to issue credit, and the type of credit issued depended upon various circumstantial factors.

Measuring Instruments (see Appendix D)

(1) *Defining Issues Test* (DIT)

The DIT attempts to tap the basic conceptual frameworks by which a subject analyses a social-moral problem and can be group administered within 30 to 40 minutes. The DIT contains six moral dilemmas each of which required the subjects to make a decision (multiple choice) about how the dilemma should be resolved. Following the decision subjects rated 12 statements (12 per dilemma) in terms of the importance of each in resolving the dilemma. The 12 statements reflect the various stages of moral development (Rest, 1979) as well as items designed for the purpose of testing subject reliability (to be addressed shortly). Finally, subjects selected the four most important considerations and ranked these. Following the method of Orchowsky and Jenkins (1979), subjects also responded to questions after each story asking them how believable and realistic the main story characters' actions were, and how well they could identify with the protagonist. These questions are not part of the regular format of the DIT. The questions, answered on a five-point scale, were "How believable was the behaviour and situation of the main story character?", and "How difficult was it to put yourself in the place of the main story character?". The purpose of these questions was to ensure that differential responses to the sex of the protagonist were not due to a lack of credibility of or identification with the main story characters.

The sex-reversed form of the DIT was constructed modelling the research of Orchowsky and Jenkins (1979). The main story characters' sex was altered using whatever reference form the actual story had used. For example, Mr. Webster was changed to Ms. Webster or Heinz to Helga. The sex of the other story characters was not changed as it was not their actions which were being judged by subjects. In addition, the purpose was to change as little as possible in the story aside from the variables of interest. Of course, other characters' genders were changed, if necessary. For example, it was Helga's husband, instead of wife, who was dying in the first dilemma. As in the regular version of the DIT, the questions regarding believability and identification were posed after each dilemma.

It is pertinent to mention here that a potentially serious typographical error was noted in the sex-reversed form of the DIT midway through the experiment. In the sixth story, originally titled "Fred and the Newspaper", the name "Fred" was changed to "Fran" for the sex-reversed version. It was discovered, however, that "Fred" was not changed to "Fran" in the last of the 12 statements. While some subjects may have overlooked this typographical error, others may have interpreted it as reflecting a meaningless item, and rated it accordingly. Due to the potential confounding effects of this error, then, the DIT was analysed in its original form and subsequently with the sixth story omitted, as suggested by Rest (personal communication, 1986).

In this study, the DIT was scored to yield the P score (level of principled thinking) for each subject. The scoring for all protocols was done by hand,

according to the scoring instructions by Rest (1979). In order to obtain this index the raw stage scores were computed. The four rankings (most important considerations) were evaluated in terms of what stages each exemplified. The choices were then rated according Rest's (1979) scheme. The weights were then added together for each stage across all dilemmas. For example, how much importance did a subject give to stage two level of moral judgement across all six dilemmas? In this way, the raw stage score usage was computed. To obtain the raw principled morality score ("P" score) the points from Stages 5A, 5B, and 6 were added together. The raw stage scores were then converted to percentages. Average P% scores were computed for each group.

The reliability of subjects' responses was tested in two ways. The DIT contains items within the 12 statements that are written to sound lofty but are in fact meaningless ("M" items). If a subject received an M raw score of eight or more or an M percentage greater or equal to 14, that subject was eliminated. A consistency check was also applied to test subject reliability. This involved a comparison of a subject's ratings and rankings. Inconsistencies here can be the result of carelessness, random checking, misunderstanding, etc. If a protocol contained inconsistencies above and beyond empirically derived cutoffs (Rest, 1979) the protocol was deemed unreliable and was subsequently discarded. According to Rest (1979), it is typical to lose between five to 15% of a sample due to reliability checks in studies asking for volunteers. In this study, approximately 15.1% of the sample was eliminated through the course of applying Rest's (1979) consistency checks. More specifically, the figure 15.1%

represents the elimination of 56 out of 371 protocols. Although all of the 570 subjects completed the BSRI, 182 of these subjects (32.1%) did not complete the second half of the study, while 16 subjects (2.8%) were no longer needed to do so.

(2) *Bem Sex-Role Inventory* (BSRI)

The BSRI was designed to further study the concept of psychological androgyny (Bem, 1981). As defined earlier, this term denotes the integration of feminine and masculine characteristics within an individual. The BSRI can be distinguished by two features uncommon to most other scales of masculinity/femininity. First, it treats femininity and masculinity as two independent dimensions rather than as two ends of a single dimension. That is, a person is not necessarily one or the other but can be, for example, high on both dimensions (androgynous). Second, items were selected as feminine or masculine based on cultural definitions of sex-typed social desirability and not on the basis of differing responses of males and females.

The BSRI contains 60 personality characteristics. Twenty of these are stereotypically masculine (e.g. ambitious, independent), twenty are stereotypically feminine (e.g. sensitive, gentle), and twenty are essentially filler items (e.g. truthful, conceited). Subjects were asked to indicate, on a seven point scale, how well each of the 60 adjectives applied to themselves. The BSRI may be given to large groups of individuals and is usually completed in 15 minutes or

less.

Bem (1981) recommends that, for the purpose of research, subjects be classified on the basis of a median split into four distinct sex-role groups. These are: Feminine (high feminine, low masculine), Masculine (high masculine, low feminine), Androgynous (high feminine, high masculine), and Undifferentiated (low feminine, low masculine).

All protocols were hand-scored according to the scoring instructions by Bem (1981). The first step in the scoring procedure was to calculate, for each subject, her or his Femininity (a) and Masculinity (b) scores, which represent the averages of the subject's ratings of the feminine and masculine adjectives on the test, respectively. The subjects were then divided at the median on both the Femininity and Masculinity scales into these groups. Specifically, if a female subject attained a Femininity score above the group Femininity median, and a Masculinity score below the group Masculinity median, she was labelled a sex-typed (feminine) female. In contrast, if a male subject attained a Masculinity score above the group Masculinity median, and a Femininity score below the group Masculinity median, he was labelled a sex-typed (masculine) male. If either a female or male subject attained Femininity and Masculinity scores above the group Femininity and Masculinity medians respectively, she or he was considered androgynous. Bem notes, however, that this method potentially yields subjects who are misclassified due to their scores being near or at the cutoff point. In general, though, this method is considered the best for classifying subjects for research purposes (Bem, 1981).

This study was concerned only with the following groups: sex-typed (feminine) females, sex-typed (masculine) males, androgynous females and androgynous males. Sex-reversed and undifferentiated subjects were not tested as they were beyond the scope of the study.

(3) *Background Questionnaire (BQ)*

According to Rest (1979), age and education are important variables to control for when testing subjects on the DIT. Variables that do not have a clear and consistent relationship with outcome on the DIT are socio-economic status, political party adherence, type of residence, profession, or college major (Rest, 1979). There is suggestive evidence, however, that intellectual milieu, as assessed by region of country one inhabits and religious membership (individual congregation level not denomination) is associated with moral judgement as measured by the DIT.

Considering the importance of the above findings, subjects were assessed for age and education level. Region of country (area one grew up in and spent the most time in) was assessed in order to try and determine, albeit somewhat crudely, the intellectual milieu of the subject's place of growing up. Although subjects' religion and degree of religiosity were assessed this does not necessarily reflect the intellectual milieu of the particular religion, as it is the individual congregation that is most important in determining this. It was beyond the scope of this study, however, to assess the intellectual milieu of each

subject's congregation. Nonetheless, this information on subject's religion was included for its potential effect upon moral judgement. In addition, all subjects' first language was English in order to ensure ability to comprehend the abstract concepts presented in the DIT (Rest, 1979).

Further information from subjects was sought concerning their occupation (full versus part-time students, employed or not), marital status, college major, and ethnic background in order to become familiar with the nature of the sample. Variables that proved to significantly associate with the dependent variable were controlled for via statistical means.

Procedure

A total of nine separate classes of students were tested. For each class (with exceptions to be addressed later) the experimental procedure consisted of two parts. Prior to the commencement of the first part of the study, the experimenter introduced herself as a Master's student in psychology, who was in the midst of collecting data for her thesis. Classes were told that the study was interested in researching "people's opinions about social problems". Furthermore, subjects were informed of the voluntary nature of the study, and that they could choose to withdraw their participation at any time. Those classes that were to receive credit were told that credit would only be issued if the subjects participated in both parts of the study. Finally, the subjects were told that the explicit purpose of the study would be revealed to them upon completion of the data collection.

The first part of the study consisted of the administration of the BQ and the BSRI. The two instruments were attached together with the BQ to be completed first. Subjects were told that the questionnaires would take approximately 15 to 20 minutes to complete altogether. After the questionnaires were completed and collected the participants were told that the experimenter would be back at a later date to administer the second and final part of the study.

The BSRI protocols were scored, in the manner previously outlined, so that each yielded a Femininity (F) and Masculinity (M) score. Tentative F and M median cutoff points were calculated from the initial classes tested, and subjects were classified into the appropriate groups of interest on the basis of these medians. Since the first few classes did not provide enough subjects to fill the groups of interest, additional classes had to be tested. As each new class was administered the BQ and the BSRI new F and M median scores had to be computed on the basis of the continually increasing subject pool. Most subjects remained in their initial groups although others had to be shifted accordingly.

The experimenter met with the classes five days to one month later (depending on which time was most convenient) in order to administer the DIT. The subjects in each group of interest were randomly assigned to complete either the regular or the sex-reversed version of the DIT. Subjects who were not in the groups of interest, whose first language was not English, or who did not properly complete the BSRI were also randomly assigned to complete one of the two versions of the DIT. This was to ensure that the testing session would not be disrupted by nonparticipating subjects. The protocols were collected and scored

promptly and unreliable protocols were eliminated.

The two part procedure described above was typical except for the final class where it was no longer necessary to obtain additional subjects. Therefore, this particular class only received the BQ and the BSRI. The final subject pool, consisting of all English speaking subjects, the majority of whom had completed the DIT in addition to the BQ and the BSRI, was composed of 570 individuals. Ultimately, the median F and M scores were based on this total sample of 570 subjects. These F and M median scores were, respectively, 4.75 and 4.85. The sex-typed (feminine) group was comprised of females whose F scores were greater than 4.75 and whose M scores were less than 4.85. The sex-typed (masculine) group consisted of males whose M scores were greater than 4.85 and whose F scores were less than 4.75. Finally, the androgynous group encompassed subjects of both sexes whose F and M scores were greater than the group F and M medians, respectively.

Other exceptions to the typical testing procedure occurred. When the groups of interest were nearly complete (e.g. one more subject was needed in a particular group), it was necessary to assign subjects to either of the two test versions more strategically. This was to ensure that all groups would be filled as expediently as possible.

Another problem occurred with sex-typed groups becoming filled much more quickly than androgynous groups, due to the relative scarcity of androgynous subjects, as measured by the BSRI. In order to circumvent the time and effort required to recruit androgynous subjects by testing new classes, all

androgynous subjects who were not present for the second testing session were contacted by telephone. They were asked if they wished to participate in the second half of the study, and they were assured that participation was on a purely voluntary basis. In addition, those subjects in Introductory Psychology classes were reminded that they were eligible to receive bonus marks (in addition to cash prizes) for participation, since the study was to take place outside the classroom. Subjects from other classes were told that they were eligible to win cash prizes from the lottery. The experimenter met with these subjects individually to administer the DIT. Fifteen point six percent of the experimental sample was individually tested in this manner.

Data Analyses

Hypotheses 1(a) to 3(a) inclusive were tested using a three-way analysis of variance (ANOVA) with level of principled thinking (P score) as the dependent variable and sex, form, and sex-role as independent variables.

Hypothesis 3(b) was tested using two separate three-way ANOVA procedures with the overall believability and identifiability scores as dependent variables (one dependent variable per ANOVA) and sex, form, and sex-role as independent variables.

Three major post-hoc analyses were conducted in order to further examine and clarify issues related to the topic of sex and sex-role differences in moral judgement. First, another sex-role index was computed (based upon the BSRI

scores) and was correlated with the P score.

The second set of post-hoc analyses explored possible sex differences in levels of Stage three and Stage four moral judgement. Two separate three-way ANOVA's were conducted with dependent variables being level of Stage three and Stage four moral judgement, respectively. Independent variables were sex, form, and sex-role.

Finally, subjects' decisions on the six moral dilemmas were analysed using chi-square procedures, for possible sex and sex-role differences in decision making.

RESULTS

BSRI Scores

Total Sample (N = 570)

In comparing the Bem Femininity (BF) and Bem Masculinity (BM) medians of the present sample to those of Bem's original Stanford sample (Bem, 1978), certain patterns can be noted (see Table 3 in Appendix E). In both samples, females attained a significantly higher BF than BM score, $t(568) = -11.09$, $p < .000$, while the opposite was true for males, $t(568) = 8.14$, $p < .000$ (t values correspond to present sample). In addition, the F minus M score was significantly different for females and males, with females attaining the higher score, $t(568) = -12.90$, $p < .000$ (present sample). High scores in either direction on this index (F minus M) indicate a tendency to be strongly sex-typed, with positive scores indicating a preference for feminine characteristics, and negative scores indicating a preference for masculine characteristics. In both samples, the BF median was slightly lower than the BM median. However, both the medians for the present sample are lower than those of the Bem Stanford sample.

In the present sample, 19.7% of subjects were androgynous. Feminine subjects comprised 27.9% of the sample, while masculine subjects formed 27%

of the sample. The percentage of undifferentiated subjects was 19.5%, while the percentage of borderline subjects (those whose BF and/or BM scores were exactly on the median) was 6%. Refer to Table 4 (see Appendix F) for a comparison of group percentages for males and females between the Bem (1978) normative sample and the present sample of 570 subjects.

Experimental Sample (N=160)

Table 5 summarizes the BF and BM median scores for the group of 160 subjects and for various subgroups within this experimental sample. From Table 5, it can be noted that subjects in similar groups have comparable BF and BM scores across the two forms of the DIT. For example, the BF and BM medians for sex-typed males on Form 1 (4.095 and 5.40, respectively) are comparable to the BF and BM medians for sex-typed males on Form 2 (4.125 and 5.325, respectively).

Comparison of the Six versus Five- Story Versions of the DIT

A three- factor analysis of variance (ANOVA) was performed with level of principled thinking (P score) on the DIT as the dependent variable, and sex, form, and sex-role as the independent variables. The ANOVA was performed initially utilizing all six DIT stories, and a second time with the elimination

Table 5

Summary of Bem Femininity (BF) and Bem Masculinity (BM) Median Scores for Subgroups of Experimental Sample (N=160).

Group	Form of DIT Completed			
	Regular (one)		Sex-reversed (two)	
	BF Median	BM Median	BF Median	BM Median
Males				
Androgynous	5.05	5.35	5.05	5.53
Sex-typed	4.01	5.40	4.13	5.33
Females				
Androgynous	5.33	5.30	5.20	5.30
Sex-typed	5.33	4.35	5.20	4.13

Note. There were 40 subjects in each group with 20 subjects per group completing Form one and 20 subjects completing Form two.

of the sixth story (the one containing the typographical error). A comparison of the results of these two analyses was undertaken in order to assess the potential impact of the faulty story on the dependent variable. Using all six stories, a significant interaction emerged between sex and form, $F(1, 152) = 3.913, p < .05$. In addition, a borderline significant interaction emerged between sex-role and form, $F(1, 152) = 3.742, p < .055$. There were no significant main effects nor was there a three-way interaction.

The use of only five stories in the ANOVA resulted in a significant two-way interaction between sex-role and form, $F(1, 152) = 3.984, p < .048$. No other significant interactions nor main effects occurred. Due to the discrepancy in the results of the ANOVAS utilizing six versus five stories, all subsequent analyses were performed using the five-story version of the DIT. The elimination of the sixth story was done to ensure that results of analyses performed on the DIT would not be inadvertently biased by the error on the sixth story. Although the use of the five-story version slightly decreased the reliability of the DIT, it should not seriously affect the outcome of the analyses (personal communication, Rest, 1986). Furthermore, Rest (1979) has a three-story version of the DIT which is widely used despite its lower reliability than the six-story version. Hence, one story less in this case should not present as a major problem in the interpretation of the analyses.

Analyses of Hypotheses

Hypotheses 1(a) through 3(a) were analysed by examining the main effects and interactions of a three-way ANOVA on the P score, with sex, form, and sex-role as independent variables. Hypothesis 3(b) was analysed using two separate ANOVA procedures, with the overall believability and identifiability scores as dependent variables, respectively. Independent variables were sex, form and sex-role. Subsequently, an analysis of covariance (ANCOVA) was performed on the P score with the aforementioned independent variables. Covariates included both theoretically relevant and situational variables that were significantly correlated with the dependent variable.

Hypothesis 1(a)

As predicted by hypothesis 1(a), male and female subjects did not differ in level of moral judgement, as measured by the P score. The means for men and women on this measure were, respectively, 35.55 ($SD = 13.66$) and 33.00 ($SD = 12.13$).

Hypothesis 1(b)

As predicted by hypothesis 1(b), level of principled thinking on the regular

version (form one) of the DIT did not differ from that on the sex-reversed form (form two). The mean P scores on form one and two were, respectively, 33.65 ($SD = 13.05$) and 34.90 ($SD = 12.88$).

Hypothesis 1(c)

Contrary to hypothesis-1(c), androgynous subjects did not attain greater levels of principled thinking than their sex-typed counterparts. Means for androgynous and sex-typed subjects were, respectively, 34.45 ($SD = 13.22$) and 34.10 ($SD = 12.73$).

Hypothesis 2(a)

Contrary to hypothesis 2(a), there was no significant interaction between sex and form. The mean P scores for males and females on form one were, respectively, 33.50 ($SD = 14.05$) and 33.80 ($SD = 12.13$). The mean P scores for males and females on form two were, respectively, 37.60 ($SD = 13.10$) and 32.20 ($SD = 12.23$).

Hypothesis 2(b)

In accordance with hypothesis 2(b), a significant interaction did emerge

between sex-role and form, $F(1, 152) = 3.984, p < .048$. This interaction, however, was not completely in agreement with the original hypothesis. It was hypothesized that androgynous subjects would attain similar P scores across both versions of the DIT, while the P scores of sex-typed subjects would change across the two versions. The interaction suggests, however, that androgynous subjects attained a higher P score than sex-typed subjects on the regular version while sex-typed subjects attained a higher P score than their androgynous counterparts on the sex-reversed version.

Hypothesis 3(a)

No significant three-way interaction emerged between the three independent variables of interest in relation to the dependent variable.

Hypothesis 3(b)

Two separate ANOVA procedures were conducted with the overall believability and identifiability scores as the dependent variables (one dependent variable per ANOVA), and sex, form, and sex-role as the independent variables. The overall believability and identifiability scores were computed by summing up the individual responses to the believability and identification questions, respectively. No significant main effects or interactions

emerged, thus assuring that the degree to which subjects believed and identified with the main story characters' actions was not significantly associated with sex, form, or sex-role.

Analysis of Covariance

Significant correlations between the dependent variable and certain demographic and experiment-related variables prompted the employment of an analysis of covariance (ANCOVA). This was done in order to attempt to statistically control for preexisting differences among subjects on these variables, and see whether the significant differences found previously would remain.

Pearson product-moment correlation coefficients were calculated in order to ascertain which of the theoretically relevant demographic variables were significantly correlated with the dependent variable, the P score. In addition, correlations were computed between the experiment or situational variables and the P score, in order to discern whether these variables exerted an undue influence on the dependent variable.

Variables that were significantly correlated in a positive direction with the dependent variable were 1) age of subject ("age"), $r = .2585$, $p = .001$ (one-tailed test); 2) having received some form of credit for participation as opposed to having received no credit ("credit"), $r = .1870$, $p = .018$ (two-tailed test); and 3)

having completed the BSRI earlier in the Fall semester rather than later in the semester ("month of BSRI"), $r = .1605$, $p = .043$ (two-tailed test).

Selection of Covariates

The procedure for the final selection of covariates was modelled after guidelines by Tabachnick and Fidell (1983). Intercorrelations among the aforementioned variables were computed in order to test for multicollinearity. The highly significant intercorrelation between "month of BSRI" and "credit" ($r = .7099$, $p = .000$) was suggestive of multicollinearity among these variables. Multiple regression procedures, with each variable acting as the dependent variable and the others in turn acting as independent variables (Tabachnick and Fidell, 1983), confirmed that the variables "credit" and "month of BSRI" were significantly overlapped. A plausible explanation for this finding is that those subjects who completed the BSRI early in the semester were likely not to have received credit for participation, because a system of credit had not yet been implemented. Due to the redundancy of these variables, the variable "month of BSRI" was eliminated as a covariate, leaving "credit" and "age". Multiple regression procedures confirmed that the least amount of overlap occurred between these latter two variables.

Analysis of Covariance (with "age" and "credit")

A 2X2X2 between-groups ANCOVA was performed on level of moral judgement (P score). Independent variables consisted of sex (female, male), form (regular, sex-reversed), and sex-role (androgynous, sex-typed) factorially combined.

As a precautionary measure, certain ANCOVA assumptions were tested (Tabachnick and Fidell, 1983). The assumption of linearity was tested by plotting the points of the covariate "age" and each of the interaction terms with the dependent variable. This assumption was found to be satisfied. The assumption of reliability of the covariates was also deemed satisfactory due to the factual nature of the information that the covariates measured. The large sample size, equality of subjects within cells, and use of two-tailed tests rendered it highly unlikely that violations of the assumptions of normality and homogeneity of variance could have occurred (Tabachnick and Fidell, 1983). Finally, as there was no reason to suspect any interaction between the covariates and the independent variables, the assumption of homogeneity of regression was not formally tested due to the robustness of the model (Tabachnick and Fidell, 1983).

After adjusting for the covariates, form still interacted significantly with sex-role $F(1,150) = 5.383, p < .022$. Examination of the adjusted cell means (see Table 6) revealed the same pattern of interaction as outlined previously.

Table 6

Adjusted and Unadjusted Mean Levels of Principled Thinking for Androgynous and Sex-Typed Subjects across the Regular and Sex-Reversed Forms of the Defining Issues Test (DIT).

Group	Form of DIT Completed							
	Regular (one)				Sex-reversed (two)			
	Adjusted		Unadjusted		Adjusted		Unadjusted	
M	SD*	M	SD	M	SD*	M	SD	
Androgynous	35.61		35.85	14.15	31.35		33.05	12.25
Sex-typed	32.68		31.45	11.61	37.47		36.75	13.39

Note. There were 40 subjects per cell.

*The adjusted standard deviations were not accessible through the SPSSX computer program.

$p < .022$

However, F ratios formed to test the significance of comparisons between adjusted means now yielded a significant difference between the means of androgynous and sex-typed subjects on form two, $F(1, 150) = 4.95, p < .05$. Although both covariates were significantly related to the dependent variable, only "age" significantly accounted for the adjustment of the dependent variable, $F(1;150) = 8.302, p < .005$. The remaining covariate, "credit", provided no additional adjustment, $F(1,150) = 2.700, p < .102$.

The results of this ANCOVA would appear to indicate that, when existing subject differences in age were controlled for statistically, noise was removed from the data since the interaction in question took on a greater significance.

Post-Hoc Analyses

The first post-hoc analysis explored, through a correlational analysis, the relation between a new sex-role index and scores on the dependent variable. The second set of post-hoc analyses examined, via two three-way ANOVA's, whether females and males would exhibit a differential preference for Stage three and Stage four levels of moral judgement, respectively. The last post-hoc analysis focussed on exploring (via chi-square analyses) possible sex and sex-role differences in decision making with respect to the moral dilemmas on the DIT.

1) *Analyses with a New Sex-role Index*

This sex-role index was computed with a view to 1) establishing a quantitative measure of sex-role in order to eliminate the problems inherent in the median split method of classification and 2) paralleling more closely the method of a previous study (Leahy and Eiter, 1980).

Following the method of Bem (1981), the BM score was subtracted from the BF score yielding an index of preference for masculine versus feminine characteristics. More positive scores on this index were indicative of a preference for feminine characteristics, while more negative scores were indicative of a preference for masculine characteristics. The dependent variable (P score), was significantly, although weakly, correlated with this new index, $r = -.1766$, $p = .025$ (two-tailed test). The direction of this correlation suggests that a preference for masculine, rather than feminine, characteristics is related to a higher level of moral judgement. The correlations between the new sex-role measure and the P score were not significant when examined separately for females and males.

2) *Exploration of Possible Sex and Sex-role Differences in the Endorsement of Stages Three and Four*

Two separate three-way ANOVA's were conducted with dependent variables

being levels of Stage three and Stage four reasoning, respectively.

Independent variables were sex, form and sex-role (original index). The rationale for these analyses was to test the hypothesis that females might score higher than males on Stage three (a caring, approval-oriented stage), while males might score higher on Stage four (a justice-oriented, law and order stage) (Holstein, 1976):

Stage Three

Results of the ANOVA on Stage three revealed no main effect of sex. However, a sex by sex-role interaction was evident, $F(1, 152) = 4.034, p < .046$. The pattern of interaction suggests that androgynous males scored higher on Stage three than sex-typed males and androgynous females, that androgynous females scored lower on Stage three than sex-typed females, and that sex-typed males scored lower on Stage three than sex-typed females. Refer to Table 7 for the means pertaining to this interaction. The difference between means for androgynous males and androgynous females is significant, $t(78) = 2.01, p < .048$. In addition, the difference between the means for androgynous females and sex-typed females was also significant, $t(78) = -2.59, p < .012$.

Table 7

Comparison of Mean Levels of Stage Three Moral Judgement for Males and Females across Androgynous and Sex-Typed Groups.

Group	M	SD
Males		
Androgynous	21.40	9.94
Sex-typed	20.85	10.50
Females		
Androgynous	16.90	10.09
Sex-typed	22.90	10.66

Note. There were 40 subjects per cell.
 $p < .046$

Stage Four

A borderline main effect of sex appeared in the ANOVA with Stage four response rate as the dependent variable, $F(1, 152) = 3.837, p < .052$. The means for men and women were, respectively, 28.88 ($SD = 11.35$) and 32.35 ($SD = 10.81$).

3) Analyses of Subjects' Decisions on Moral Dilemmas

These analyses were performed with a view to exploring possible sex and sex-role differences in decision making on each of the six moral dilemmas. Previous studies employing either the Rest or Kohlberg measure of moral judgement typically do not investigate this area, and tend to focus solely on sex differences in moral judgement.

The decision to use all six moral dilemma stories instead of eliminating the sixth was based on the following reasoning. First, the DIT is structured so that test-takers are asked to make decisions about the moral dilemmas prior to judging the issues involved. Therefore, it is highly likely that subjects made their decisions about the sixth story prior to having been exposed to the last issue containing the typographical error. Second, even if a particular subject judged the issues before making a decision, the nature of the error is such that the subject either would not have noticed the error or would have simply judged it as

a "meaningless" item. In the latter case, this would have no bearing on the decision made, since all the stories contain built-in "meaningless" items.

Crosstabulations of decisions by sex and sex-role were constructed for each of the six moral dilemma stories while controlling for type of form. In addition, the Cramer's V statistic was computed as a measure of association between the two variables in question. The Cramer's V statistic is the equivalent of the phi statistic for contingency tables larger than two factors by two factors (SPSSX Manual, 1986).

Decision (first, second, or third choice) by Sex (female, male)

Decision emerged as independent of sex on the sex-reversed form. On the regular form, however, women and men differed in the types of decisions they made with respect to one half of the stories, while decision remained independent of sex on the rest of the stories. For the first story ("Heinz and the Drug"), the chi-square only bordered on significance, $\chi^2(2, N = 79) = 5.693$, $p < .058$. The association between type of decision and sex was weak; Cramer's $V = .27$. The pattern of frequencies (see Table 8) indicates that men tended to choose the first decision ("Heinz should steal the drug") more often than women, while women chose the second and third decisions more often than men ("Can't decide" and "Should not steal the drug", respectively).

Table 8

*Comparison of Observed and Expected Frequencies for Decision by Sex
Crosstabulation for Dilemma One ("Heinz and the Drug"; Regular form).*

Group	Decision					
	1		2		3	
	O ^a	E ^b	O	E	O	E
Males	26	20.8	9	11.6	5	7.6
Females	15	20.2	14	11.4	10	7.4

^aObserved frequencies. ^bExpected frequencies.

Note. Decision 1="Heinz should steal the drug";

Decision 2="Can't decide";

Decision 3="Heinz should not steal the drug".

$\chi^2 = 5.693, p < .058.$

For the second story ("Student Takeover"), decision did not emerge as independent of sex, $\chi^2(2, N = 80) = 8.949, p < .011$. The association between type of decision and sex on this story was moderate; Cramer's $V = .33$. The pattern of frequencies (see Table 9) indicates that more men than women chose the third decision ("Should not take over the building"), while more women than men chose the first and second decisions ("Should take over the building" and "Can't decide", respectively).

Decision did not emerge as independent of sex on the fifth story ("Webster"), $\chi^2(2, N = 79) = 8.329, p < .012$. The association between sex and type of decision was moderate; Cramer's $V = .32$. The pattern of frequencies (see Table 10) suggests that more women than men chose the first decision ("Should hire Webster"), while more men than women chose the second decision ("Can't decide").

*Decision (first, second, or third choice) by Sex-role
(androgynous, sex-typed)*

Decision emerged as independent of sex-role on the sex-reversed form and on all but one of the six stories on the regular form. On the third story ("Escaped Prisoner"), regular form, decision was not independent of sex-role, $\chi^2(2, N = 79) = 6.627, p < .036$. The association between sex-role and decision on this story was slightly weak; Cramer's $V = .29$. The pattern of frequencies (see Table

Table 9

*Comparison of Observed and Expected Frequencies for Decision by Sex
Crosstabulation for Dilemma Two (Student Takeover, Regular Form).*

Group	Decision					
	1		2		3	
	O ^a	E ^b	O	E	O	E
Males	4	6.5	2	5.5	34	28
Females	9	6.5	9	5.5	22	28

^aObserved frequencies. ^bExpected frequencies.

Note: Decision 1="Students should take over the building";

Decision 2="Can't decide";

Decision 3="Students should not take over the building".

$\chi^2 = 8.949, p < .011.$

Table 10

*Comparison of Observed and Expected Frequencies for Decision by Sex
Crosstabulation for Dilemma Five ("Webster"; Regular Form).*

Group	Decision					
	1		2		3	
	O ^a	E ^b	O	E	O	E
Males	30	34.4	9	5.1	1	0.5
Females	38	33.6	1	4.9	0	0.5

^aObserved frequencies. ^bExpected frequencies:

Note: Decision 1="Should hire Webster";

Decision 2="Can't decide";

Decision 3="Should not hire Webster".

$\chi^2 = 8.33, p < .012.$

11) suggests that more sex-typed than androgynous subjects chose the first decision ("Should report him"), while more androgynous than sex-typed subjects chose the third decision ("Should not report him").

Table 11

Comparison of Observed and Expected Frequencies for Decision by Sex-Role Crosstabulation for Dilemma Three ("Escaped Prisoner"; Regular Form).

Group	Decision					
	1		2		3	
	O ^a	E ^b	O	E	O	E
Androgynous	17	20.8	11	11.6	12	7.6
Sex-typed	24	20.2	12	11.4	3	7.4

^aObserved frequencies. ^bExpected frequencies.

Note: Decision 1="Should report him";

Decision 2="Can't decide";

Decision 3="Should not report him".

$\chi^2 = 6.63, p < .036.$

DISCUSSION

The original hypotheses of the present study were partially supported. The hypothesis that men and women would not differ in level of principled thinking (P score) on the DIT was supported by the lack of a main effect of sex. In addition, the findings also supported the hypothesis that the average P score would not differ as a function of the form of the test. The results did not support the hypothesis that androgynous subjects would attain a higher average P score than sex-typed subjects. Nor did the results support the hypothesis of an interaction between sex and form. A sex-role by form interaction occurred, however, and was partially supported by the original hypothesis. It was predicted that the average P score of androgynous subjects would not differ significantly across form, while that of sex-typed subjects would be influenced by the type of form. In fact, the average P scores of both groups of subjects did not differ significantly across form. However, the average P score of sex-typed subjects on form two was significantly higher than that of androgynous subjects on form two. As expected, the degree of believability of and identification with the story protagonists did not significantly influence subjects' responses on the DIT. Finally, there was no three-way interaction between the independent variables (sex, form, sex-role) and the dependent variable (P score).

Sex of Subject and Moral Judgement

The finding of a lack of sex differences in level of principled thinking does not support the notion that there are in fact two distinctive (male and female) ways of conceptualizing moral issues. In addition, this result would appear to argue against the notion that the "female voice" has been compromised by male standards, and that popular tests instruments such as the DIT are biased toward categorizing the "male" perspective as higher on the developmental scale.

The present finding supports the results of review studies (Rest, 1979; Walker, 1984) and other recent theories (e.g. Lifton, 1985; Walker, 1986). According to Lifton (1985), if differences in moral development are due solely to sex bias one would expect the bias to favour one sex over the other in a consistent fashion, where in fact this is not the case. Lifton concludes that when sex differences are observed they are more likely due to social roles and expectations. Also, according to Walker (1986), if the sex difference is reliable and valid, then it should be present with regard to standard as well as personal moral dilemmas.

From this study, then, it is clear that men and women are capable of demonstrating a comparable level of principled thinking on Kohlbergian tests of moral judgement such as the DIT. However, perhaps the sexes differ subtly in their moral orientations, in a way that the DIT is not equipped to measure. To illustrate, in a recent study by Ford and Lowery (1986), subjects selected their own personal moral dilemmas (contents of dilemmas across the sexes did not differ substantially), and rated them in terms of their use of justice and care

orientations in resolving the dilemmas. Reliability patterns revealed that women were more consistent in their use of a care orientation while men were more consistent in their use of a justice orientation across three dilemmas. These results provide support for Gilligan's (1982) assertions that women are more oriented towards care and responsibility while men tend to be justice and rights oriented. The strength and nature of these differences found in the Ford and Lowery (1986) study is questionable, however. For instance, when the importance and difficulty of the dilemmas are taken into account as covariates, the sex differences in use of justice and care orientations disappear.

Other studies (e.g. Turiel, 1976; Higgins, Power, and Goldberg, 1984) also stress the importance of studying the context of subjects' moral decision making and judgements. These authors found that variations in choice of moral orientation or rate of moral development were more influenced by the subject's environmental setting rather than sex per se.

Some studies do in fact report that women have a bias toward recollecting moral dilemmas centered on issues of relationship (e.g. Pratt and Golding 1985). It is unclear, however, whether women generally cast their conflicts in those terms, or whether their social context implies that they actually experience more conflicts dealing with issues of care than men (Ford and Lowery, 1986).

Future research should try to determine whether, in a given conflict situation, women will focus more on issues of relationship, response, and care, while men will focus more on rights, rules, and justice. It may be necessary to return to the standardized dilemma format instead of having subjects generate their own

dilemmas in order to control for subject biases in dilemma selection. New test instruments should be designed such that they include a wide range of moral dilemmas that pull for justice and care concerns alike.

Ultimately, one must ask why so many find Gilligan's claims so intuitively appealing even when, at present, there is no clear support for her assertions (Brabeck, 1983). Brabeck suggests that society may have a need to perceive men and women as morally different. For example, as Ford and Lowery (1986) note, studies show that boys and girls are perceived differently in their helping behaviour even when they are behaving essentially the same (Shigetomi, Hartmann, and Gilford, 1981). Although men and women may in fact differ in their moral orientations, this should be demonstrated empirically, and not simply theoretically.

Sex of Subject and Endorsement of Stages Three and Four

Despite the inherent limitations of the DIT to tap the care and justice orientations, Stages three and four do indirectly parallel Gilligan's notions of care and justice orientations, respectively. To illustrate, a component of Stage three is concerned with maintaining good relations with others which involves an appreciation of the "inner person" and reciprocal role-taking (Rest, 1979). Stage four, in contrast, is concerned with law and order and with the belief that everyone in society is obligated and protected by the law (Rest, 1979). Studies implicating sex bias in the DIT or Kohlberg's Moral Judgement Interview have

shown women to peak at Stage three while men peak at Stage four (e.g. Holstein, 1976).

In the present study, post-hoc analyses of sex differences in usage of Stages three and four did not support the above findings. No main effect of sex occurred with respect to Stage three. There was a borderline main effect of sex for Stage four, however, the trend was in the opposite direction predicted by the above. The mean Stage four score was slightly higher for females than for males.

A study by Levine (1976) supports the results of the present study by finding no main effects of sex for Stages three and four. His study points out the importance of taking into account other factors that can affect moral judgement besides sex of subject. To illustrate, the author replaced the original protagonists in Kohlberg's dilemmas with "best friend" and "mother". He found that, in comparison with the stranger protagonist, the Stage four response rate was lower for these new protagonists and the Stage three response rate was higher. Sex by dilemma interactions also occurred. The author concluded that Stage three is more likely to be used by either sex when a primary other is used as a protagonist, and that different types of moral dilemmas may increase or decrease Stages three and four response rates.

The finding of no sex differences in usage of Stages three and four, in addition to the lack of sex differences in the P score, further diminishes support for the theory that men and women have different moral orientations. However, given the limited value of the DIT to tap into these orientations, definite

conclusions cannot be reached without further study.

Sex, Sex of Protagonist, and Level of Moral Judgement

As predicted, there would be no main effect of form of the DIT, since there was no basis for assuming that one form would elicit a higher level of moral judgement than the other. Contrary to prediction, however, was the lack of a sex by form interaction. This result is in keeping with the findings from the study by Garwood et al. (1980). However, it runs contrary to findings of studies by Orchowky and Jenkins (1979) and Bussey and Maughan (1982). Both of these studies yielded significant sex by form interactions, albeit in different directions.

It is clear from the results of the four studies (including the present) that the interaction between sex and form is certainly not a reliable one. The discrepancy between the studies may be due to one or more of the following factors.

First, the study by Bussey and Maughan (1982) employed Kohlberg's MJI (1978) while the other studies used the DIT. Although the correlation between the two test instruments is high (Rest, 1979), differences remain nonetheless that may hamper comparison. For example, men and women may differ in how they respond to an interview (MJI) in that men may be more reluctant than women to openly express certain thoughts and emotions. Conversely, a pencil and paper measure such as the DIT would be less subject to such possible differences. This may partially explain the discrepancy in the directions of the sex by form.

interactions found in the studies by Orchowsky and Jenkins (1979) and Bussey and Maughan (1982).

Second, the study by Orchowsky and Jenkins (1979) used the standard short form of the DIT while the type of DIT used in the study by Garwood et al. (1980) is not specified. The present study used the full form of the DIT minus one dilemma. Since the shorter version is known to have poorer reliability (Rest, 1979), this may explain the discrepancy in the three studies using the DIT.

Third, significant differences in sample size between the four studies may have contributed to the different results obtained. The studies that did not yield a significant sex by form interaction used large sample sizes. Based upon a power analysis, the present study employed 160 subjects in total with 40 subjects in each cell (with an equal number of males and females). The study by Garwood et al. (1980) employed 192 females and 163 males as subjects. This sample consisted of both high school and college students. Unfortunately, the authors did not specify how many subjects were in each of these groups. Interestingly, the studies that did find a significant sex by form interaction had much lower sample sizes. To illustrate, the study by Bussey and Maughan (1982) had only 10 subjects per cell, while the study by Orchowsky and Jenkins had approximately 20 subjects per cell. This finding is odd given the fact that the more subjects a study employs, the greater the power of the study, and the greater the chances of obtaining a significant result if in fact one exists. It may be the case, then, that the studies employing smaller sample sizes yielded spurious effects.

Fourth, the studies under discussion (except the present) did not report whether their subjects spoke English as a first language. According to Rest (1979), it is important to control for this variable since the DIT is so dependent upon good reading skills. In addition, the studies by Bussey and Maughan (1982) and Garwood et al. (1980) fail to specify the educational level of their college samples. Entering college students with no university background are a different population from those with four university years completed, for example. Educational level is an important factor to measure and control for, if necessary (Rest, 1979).

Due to the above inconsistencies in the studies investigating a sex by form interaction, it is not surprising that the results of each are similarly inconsistent. In any case, the discrepancies in the studies would seem to indicate that the sex by form interaction, if it indeed exists, is weak.

The lack of a sex by form interaction in the present study would seem to support the view that there is no sex bias produced by the all-male cast of protagonists on the DIT. The hypothesis that females are disadvantaged by these male characters was not supported. In turn, male subjects are not advantaged by the presence of male-only main characters. The finding that men and women did not differ in the degree to which they believed and identified with the male and female protagonists provides indirect support for the above conclusions.

Despite the finding that there appears to be no sex bias produced by the exclusively male cast of protagonists, it would still seem appropriate to balance

the sex of the main characters, if only to present women in more active, varied, and less sex-stereotyped roles.

Sex of Subject and Moral Dilemma Decisions

In the present study, despite the lack of main effects of sex on the P score and on Stages three and four, some sex differences in decision making were noted. Sex differences in this area have not been widely studied as compared to the great quantity of research that focusses on moral development and moral judgement.

The sex differences found in this study will be briefly summarized. On the first story, "Heinz and the Drug", more men than women thought that Heinz should steal the drug, while more women couldn't decide or thought that Heinz should not steal the drug. It should be noted that this effect was of borderline significance. On the second story, "Student Takeover", more men than women decided that students should not take over the building, while more women than men couldn't decide or thought that the students should take over the building. Finally, on the fifth story, "Webster", more men than women indicated that they couldn't decide whether to hire Webster, while more women than men decided that Webster should be hired.

It is pertinent to point out that sex differences with respect to decision making occurred only on form one and not on form two. It is interesting that men and women should arrive at similar decisions when the protagonist is female yet

differ to a degree when the main character is male. It might be speculated that, since the female protagonist is usually the exception to the rule, subjects viewed the dilemmas from a more abstract and detached perspective. Consequently, subjects may have judged the dilemmas in a less subjective manner. Too, the fact that the observed sex differences in decision making were not consistent across form implies that the sex of the protagonist may not be a trivial issue. This finding provides additional incentive to revise the current version of the DIT or to utilize a measure of moral judgement that controls for this factor.

Golding and Laidlaw (1979-80) examined some moral judgement decisions made by an exclusively female sample. These authors noted that many subjects found it impossible to make a choice in the hypothetical dilemmas without some additional information. They concluded that women attempt to reconstruct these dilemmas in terms of real situations, requesting missing information about the nature of the people and places where they live. The conclusions of the Golding and Laidlaw (1979-80) study are of limited value for purposes of clarifying the sex differences in the present investigation, since a male comparison group was not included in their design.

Gilligan's theories (1977, 1982) support the findings of the Golding and Laidlaw (1979-80) study. She believes that Kohlberg's dilemmas separate moral problems from their contexts. This artificial separation, in turn, is more effective for eliciting justice concerns. In contrast, when measuring caring concerns, it is necessary to provide more of the context. Also, according to Gilligan, women have a sense of vulnerability which prevents them from taking a

stand on moral issues.

According to Nunner-Winkler (1984); however, only if one assumes that there are rules without exceptions can there be any moral judgement made without taking note of situational specifics. The notion of rules without exceptions is an extreme position, however, which scarcely anyone adheres to. Context orientation is in fact a prerequisite for all actual moral judgements, and Kohlberg's dilemmas are not context-free as Gilligan claims.

The sex differences in decision making found in this study are sparse and definitive conclusions and generalizations are not warranted. It may be observed, however, that women did in fact choose "can't decide" more often than men on two stories which partly supports Gilligan's (1979, 1982) hypotheses and the findings of the Golding and Laidlaw (1979-80) study. However, this hypothesis would have to be investigated much more extensively and systematically than in the present study in order to properly test Gilligan's assertions.

It may also be noted that, on two of the three stories mentioned, women were more apt than men to choose the "humanitarian" or "liberal" choice as defined by Rest (1979). These choices occurred on stories two and five ("Students should take over the building" and "Webster should be hired", respectively). Although it may be speculated that these choices reflected a greater care and responsibility orientation on the part of women, further systematic investigation of this hypothesis is clearly necessary.

The fact that decision is not completely independent of sex of subject points to

an area of investigation worth exploring in future research. For example, subjects can be presented with a list of moral dilemmas and be asked to indicate the following: 1) whether they in fact perceive the dilemma as a "moral" dilemma or simply as a serious problem; 2) how the dilemma should be resolved (using multiple choice responses, including "none of the above") with a brief explanation for their choice and 3) their own choice should none of the given choices be acceptable to them, followed by a brief explanation.

Sex-role and Moral Judgement

The lack of a main effect of sex-role in the present study does not conform to Kohlberg's (1966) theory that subjects who have attained a post-conventional level of moral judgement may not be as reliant on conventional sex-role expectations of others. Furthermore, this result is not consistent with the findings of the studies by Leahy and Eiter (1980), Pratt et al. (1984), and Arbuthnot (1975) which demonstrated that nontraditional sex-role identities were associated with high levels of moral judgement for each sex. However, this result is in accordance with the findings of the Bussey and Maughan (1982) study which also indicated no main effect of sex-role.

A different picture emerged, however, when the new sex-role index was employed. This index was significantly correlated with the P score. The negative direction of the correlation indicates that a preference for masculine, rather than feminine, characteristics is associated with a higher level of

principled thinking. When the sexes were examined separately, however, the correlations between this new sex-role index and the P score were all nonsignificant. It is highly unlikely that this result is due to the resulting smaller n's (80 per group) since the probability levels were not even close to significance.

Although this latter finding is not predicted by studies by Arbuthnot (1975), Leahy and Eiter (1980), and Pratt et al. (1984) mentioned above, it is in agreement with the results of a recent study by Lifton (1985). Using the Masculine/Feminine Scales of the California Psychological Inventory as a measure of sex-role, and Kohlberg's MJJ as the moral judgement measure, Lifton found that, for all subjects, masculine individuals show a higher stage of moral development than feminine persons.

According to Lifton (1985), these results show that Gilligan is incorrect in concluding that the model favours males over females (sex differences) when it likely favours masculine over feminine persons (sex-role differences) (Lifton, 1985). However, Gilligan is supported in her conclusion that the cognitive-developmental model of moral judgement (Kohlberg, 1969; Rest, 1979) favours moral reasoning based on justice rather than caring.

The results of the present study support Lifton's (1985) conclusions regarding the relative impact of sex versus sex-role upon moral judgement, since sex-role and not sex, exerted an influence on level of moral judgement. Furthermore, if the "masculine" and "feminine" adjectives on the BSRI are examined, it is not difficult to ascertain why the endorsement of masculine traits is associated with a

higher P score. The P score, a combination of the scores on Stages five and six, is deemed to be a measure of post-conventional, as opposed to conventional, moral judgement. Reasoning at the post-conventional level is thought to be more advanced than that at the conventional and pre-conventional levels. In addition, post-conventional reasoning is less reliant on external motivators to behave morally (e.g. pleasing another; obeying the law), and more reliant on abstract reasoning such as trying to envision the mind of a rational person or trying to anticipate what principle a rational society would want to end up with for governing its system of cooperation (Rest, 1979). Masculine traits on the BSRI such as individualistic, analytical, self-reliant, independent, and willing to take a stand would appear to be more predictive of post-conventional reasoning than the feminine traits. Examples of feminine traits are: yielding, eager to soothe hurt feelings, compassionate, understanding, and sensitive to needs of others. The latter set of traits seems to coincide best with making judgements at the Stage three level where one is concerned with maintaining good relations with others and obtaining approval from others.

The finding that level of principled thinking is positively correlated with the endorsement of masculine traits may imply that a bias exists in the DIT in favour of persons who possess these traits. It may be the case, however, that a "masculine" trait configuration is indeed better suited to resolving moral dilemmas according to the highest moral stages. Future research exploring the relationship between personality traits (as opposed to biological sex) and successful moral decision making (either hypothetical or real) may provide

insights into this issue.

Sex-role of Subject and Endorsement of Stages three and four

Although no main effect of sex was found on Stage three, a significant sex by sex-role interaction occurred, showing androgynous males to score higher on Stage three than androgynous females, and androgynous females to score lower on Stage three than sex-typed females.

The latter finding is consistent with the results of the study by Pratt and Royer (1982) which indicated that a more feminine ideal self was associated with a greater responsibility focus in moral judgement as measured by a modified version of the DIT. This responsibility focus was intended to parallel Gilligan's (1982) concept of care and responsibility as the primary focus for women.

The finding that Stage three usage is influenced by the interaction between sex and sex-role and not sex itself provides further support for the conclusion that sex-role, not sex, may prove to be the more useful individual difference variable in the study of moral judgement.

There was no parallel finding for males as androgynous males did not score significantly higher on Stage three than sex-typed males. However, androgynous males did obtain a higher average P score on Stage three than androgynous females, while the same pattern did not occur for sex-typed males.

Sex-role, Sex of Protagonist, and Level of Moral Judgement

Despite the lack of a main effect of sex-role (using the original index), a significant sex-role by form interaction occurred. The nature of the interaction is in partial agreement with the initial hypothesis which predicted that the average P score of androgynous subjects would not differ significantly across form, while that of sex-typed subjects would be influenced by form. The present interaction demonstrates that the average P scores of both groups did not differ significantly across form. However, after adjusting for the covariate "age", sex-typed subjects attained a significantly higher average P score than androgynous subjects on form two of the DIT.

Why would sex-typed subjects attain a higher level of principled thinking on form two than androgynous subjects, while no difference occurred between the groups on form one? One rationale is as follows. It may be more difficult for sex-typed subjects to empathize with, identify with, and take seriously, the female protagonists. This inability would be likely due to the somewhat atypical (or certainly not sex-stereotyped) roles that the female protagonists played (e.g. doctor, president, owner of a gasoline station) in the moral dilemmas. Sex-typed subjects may have experienced more difficulty than androgynous subjects in relating to the female protagonists since the former group is highly attuned to cultural prescriptions of masculinity/femininity and is more motivated to keep its behaviour consistent with these definitions (Bem, 1979). In contrast, androgynous subjects are less attuned to these cultural prescriptions and with

modifying their behaviour accordingly.

Due to the potential distance, then, between sex-typed individuals and the female protagonists, the sex-typed subjects in this study may have become more objective in their assessment of the dilemmas. This increased objectivity, however slight, may have been sufficient to stimulate more abstract reasoning in these subjects, thereby increasing their P scores. This line of reasoning closely parallels that of Orchowsky and Jenkins (1979) who try to account for their finding that men obtained higher P scores on the sex-reversed form, while women obtained higher P scores on the original form. According to these authors, the opposite-sex story characters may have allowed subjects to become more objective in assessing the dilemmas, which, in turn, may have stimulated more abstract, post-conventional reasoning.

It must be pointed out that, in fact, no main effect of sex-role occurred with respect to the believability and identifiability indices. It may well be the case, however, that the measures of the extent to which subjects believed and identified with the main story characters were simply too crude to properly discriminate among subjects (Orchowsky and Jenkins, 1979). Too, perhaps it is not always clear to subjects just exactly *who* is the main character in the dilemmas. For example, in the story "Escaped Prisoner", the main story character could be construed to be the prisoner or the person who recognized the prisoner and who is now in a quandary over whether or not to report him or her. Similarly, in the story "Student Takeover", the students appear to be the protagonists while the president is the subsidiary character. In fact, there were a

few subjects in the present study who explicitly asked the experimenter who the main character was in a particular story. One must wonder, then, just how many subjects there were who were also unsure but didn't ask for clarification. If subjects were in fact judging different characters then the indices of believability and identifiability are invalid.

Sex-role of Subject and Moral Dilemma Decisions

With respect to decision making, sex-role was not as salient a factor as sex. On only one of the stories on the regular form did sex-role prove to be non-independent of decision. On the third story, "Escaped Prisoner", more sex-typed than androgynous subjects indicated that the prisoner should be reported while more androgynous than sex-typed individuals indicated that the prisoner should not be reported.

Although there was no main effect of sex-role on the P score, this pattern of responses could perhaps be anticipated from Kohlberg's theory of the relationship between sex-role and moral judgement. To illustrate, the response "Should report him" is consistent with all the Stage four reasoning statements such as, for example, "Everytime someone escapes punishment for a crime, doesn't that just encourage more crime?", and "Has Mr. Thompson really paid off his debt to society?". The Stage five and six statements, on the other hand, are more likely to elicit the decision "Should not report him" (or "Can't decide"), e.g., "Would going to prison do any good for Mr. Thompson or protect anybody?" and

"How would the will of the people and the public good best be served?". In other words, it would appear that the androgynous subjects were reasoning at higher stages than their sex-typed counterparts on this particular story.

General Conclusions

This study has demonstrated that sex of subject is not a salient factor in relating to level of moral judgement, as measured by the DIT. In addition, the sex of the protagonist on the DIT does not exert a biasing influence on level of moral judgement. These two findings challenge the notion that females are disadvantaged by Kohlbergian tests of moral judgement such as the DIT, and in particular, by the male-only cast of protagonists.

The finding that decision is not completely independent of sex of subject points to an area of investigation worth exploring in a more systematic fashion in future research. Too, the finding that sex differences in decision making are confined to the regular form of the DIT demonstrates that the sex of the protagonist is not completely irrelevant. It is for this reason, as well as to portray women in more flexible roles, that the sex of the main characters on the DIT and similar tests should be varied.

The paucity of sex differences in moral judgement found in this study does not necessarily imply that there are no sex differences in this area. Sex differences in moral orientation may indeed exist yet are perhaps too subtle to be measured by the DIT. Future research in this area should focus on developing more

sensitive moral judgement instruments that are designed to tap subjects' predominant moral orientations. Too, a more reliable measure of the degree to which subjects believe and identify with the protagonists' actions should be included. It would also be fruitful to examine variables such as environmental setting and identity of the protagonists, as these factors have been found to exert an influence on subjects' moral judgements.

In this study, sex-role proved to be a more potent influence than sex of both level of principled thinking and stage level. In particular, the positive association between the endorsement of masculine traits and level of principled thinking should stimulate research on the merits of these traits to successfully resolve moral dilemmas. The outcome of such research would indicate whether or not an undue bias in favour of "masculine" traits existed in the DIT.

The generally more significant effects of sex-role suggest, on the one hand, that one's psychological sex-role, not biological sex, is the more influential variable under consideration, and should be measured and controlled for in future studies. However, given the well-documented theoretical and methodological critiques of sex-role measurement, and in particular, the BSRI, (e.g. Locksley and Colten, 1979; Pedhazur and Tetenbaum, 1979), cautious interpretation of the present results is warranted. Future research examining the relationship of sex-role and moral judgement should experiment with alternative sex-role measures such as, for example, the recently developed "Sex-Role Construct Repertory Test" (Baldwin, Critelli, Stevens, and Russell, 1986), which attempts to elicit subjects' *personal* conceptions of masculinity and femininity.

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APPENDIX A**Description of Power Analysis**

Sample Size Required for Study

In order to calculate the sample size needed for the present study, it was necessary to estimate the effect sizes of individual main effects and interactions of the three independent variables. Although the sizes of some effects could be obtained from previous research, it was also the case that some effects had to be estimated due to lack of adequate past data. The procedure for estimating effect sizes was consistent with that outlined by Cohen (1977).

Main Effects

The effect of sex-role was estimated from a study by Lifton (1985) yielding an effect size (ES) of $F=.28$, a value in between a "medium" ($F=.25$) and "large" ($F=.40$) effect (Cohen, 1977). The number of subjects required to detect such an effect, with alpha at .05 and power equal to .8, is approximately 17 subjects per cell. A power value of .8 represents an 80% chance of detecting an effect if it exists. This value is considered to be a desirable conventional value when there is no other basis for setting a specific value (Cohen, 1977). Since this study did not predict significant main effects for sex and sex of protagonist, it was not of concern to estimate the ES's for these variables.



Interactions

Only two 2-way interactions were of interest. The sex by sex of protagonist interaction yielded an approximately medium effect size ($F=.22$), a value obtained from the data of Orchowsky and Jenkins (1979). Approximately 20 subjects per cell would be needed to detect such an effect with alpha at .05 and power at .8.

The power of the sex-role by sex of protagonist interaction needed to be estimated as insufficient data could be found to calculate it according to previous research. It was estimated, based on the medium effect sizes of the main effect of sex-role and the interaction between sex and sex of protagonist, that the effect size of the interaction in question would be medium as well. An effect of $F=.20$ would require 25 subjects per cell with alpha set at .05 and power set at .8.

Finally, although a three way interaction was not specifically predicted, it may be the case that a large sample size is needed to detect it, if the effect size of this interaction is small. Based on an estimated small effect ($F=.10$) (Cohen, 1977), 95 subjects per cell would be needed (alpha=.05 and power =.8). If the effect was somewhat larger ($F=.15$), 44 subjects per cell would be required (alpha=.05 and power =.8). If the effect is in fact as small as described above, it is probably not worth detecting and would be highly impractical to do so. If it is an approximately medium effect ($F=.20$) then 25 subjects per cell seems a fairly

reasonable figure.

Taking into account all the effect sizes and their relative importance, a minimum of 20 subjects per cell was estimated to be necessary for the study to yield statistically significant results, keeping alpha at .05 and power at .8.

APPENDIX B**Table 1**

Table 1*Description of Respondents: Experimental Sample (N=160)*

Variable	N	%
Sex		
Female	80	50
Male	80	50
Marital Status		
Single	156	97.5
Married	3	1.9
Divorced	1	0.6
Ethnic Group		
White	155	96.9
Black	1	0.6
Native	2	1.3
Other	2	1.3
First Language		
English	160	100
Place of Growing Up		
Big City	8	5
Small City	87	54.4
Town	41	25.6
Farm or rural area	24	15

Table 1 cont'd

Variable	N	%
Religion		
Catholic	78	48.8
Protestant	58	36.3
Other	15	9.4
None	9	5.6
Present Influence of Religion		
Great	19	11.9
Some	66	41.3
Little	40	25
None	35	21.9
Type of Student		
Full-time	146	91.3
Part-time	14	8.8
Type of Employment		
Full-time	9	5
Part-time	77	48.1
Not applicable	74	46.3
Area of Study		
Science	20	12.5
Arts	101	63.1

Table 1 cont'd

Variable	N	%
Area of Study cont'd		
Commerce	35	21.9
Engineering	1	0.6
Education	1	0.6
Other	2	1.3
Previous Degree(s) Held		
None	155	96.9
Undergraduate	5	3.1
Completed Years of University		
zero	93	58.1
one	26	16.3
two	19	11.9
three	20	12.5
four	1	0.6
five	1	0.6

APPENDIX C

Table 2

Table 2*Description of Respondents: Total Sample (N=570)*

Variable	N	%
Sex		
Female	284	49.8
Male	286	50.2
Marital Status		
Single	547	96
Married	13	2.3
Divorced	7	1.2
Separated	3	0.5
Ethnic Group		
White	541	94.9
Black	12	2.1
Asian	6	1.1
Native	2	0.4
Other	9	1.6
First Language		
English	570	100
Place of Growing Up		
Big City	35	6.1
Small City	314	55.1

Table 2 cont'd

Variable	N	%
Place of Growing Up cont'd		
Town	133	23.3
Farm or rural area	88	15.4
Religion		
Catholic	250	43.9
Protestant	207	36.3
Jewish	2	0.4
Other	61	10.7
None	4	8.6
Present Influence of Religion		
Great	54	9.5
Some	206	36.1
Little	153	26.8
None	156	27.4
Type of Student		
Full-time	531	93.2
Part-time	38	6.7
Type of Employment		
Full-time	28	4.9
Part-time	284	49.8

Table 2 cont'd.

Variable	N	%
Type of Employment cont'd		
Not applicable	257	45.1
Area of Study		
Science	85	14.9
Arts	333	58.4
Commerce	130	22.8
Engineering	7	1.2
Education	2	0.4
Other	10	1.8
Previous Degree(s) Held		
None	357	62.6
Undergraduate	10	1.8
Unknown*	203	35.6
Completed Years of University		
zero	211	37
one	59	10.4
two	46	8.1
three	40	7
four	6	1.1
five	3	0.5

Table 2 cont'd

Variable	N	%
Completed Years of University cont'd		
Unknown*	205	36

*The educational level of these subjects was not obtainable since they did not complete the second half of the study.

APPENDIX D
Measuring Instruments

Measuring Instruments

1) *Defining Issues Test-Original Form*

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.

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?

*Note : From *Revised Manual for the Defining Issues Test: An Objective Test of Moral Judgement Development* by James R. Rest, 1979, Minneapolis: Minnesota Moral Research Projects. Copyright 1979 by James Rest. All rights reserved. Reprinted by permission. (The typing format of the present reprinted version is not identical to the original).

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 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, foomy car be better than a compact car. |

Sample Question cont'd

Great Some Much Little No

-
6. Whether the front connibilies 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 second, third, and fourth most important choices. (Note that the top choices in this case will come from 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.)

MOST IMPORTANT	5
SECOND MOST IMPORTANT	2
THIRD MOST IMPORTANT	3
FOURTH MOST IMPORTANT	1

Instructions for Part C (Sample Question). This section does not form part of the original DIT. It is modelled after the research of Orchowky and Jenkins, (1978):

Part C cont'd

The following questions are to be answered:

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

Circle 1 if the behaviour and situation of the main story character is not at all believable.

Circle 2 if the behaviour and situation of the main story character is a little believable.

Circle 3 if the behaviour and situation of the main story character is fairly believable.

Circle 4 if the behaviour and situation of the main story character is very believable.

Circle 5 if the behaviour and situation of the main story character is totally believable.

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

Circle 1 if it was not at all difficult to put yourself in the place of the main story character.

Circle 2 if it was a little difficult to put yourself in the place of the main story character.

Circle 3 if it was fairly difficult to put yourself in the place of the main story character.

Circle 4 if it was very difficult to put yourself in the place of the main story character.

Circle 5 if it was extremely difficult to put yourself in the place of the main story character.

(1) 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 town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. 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.

*Heinz and the Drug, cont'd***IMPORTANCE**

Great Much Some Little No

	7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.
	8. What values are going to be the basis for governing how people act toward each 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 _____

Heinz and the Drug, cont'd

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(2) 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 end 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 it 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. |

Student Takeover, cont'd

IMPORTANCE

Great Much Some Little No

-
6. Will the takeover anger the public and give all students a bad name?
-
7. Is taking over a building consistent with the 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.
-

Student Takeover, cont'd

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

Most Important _____
 Second Most Important _____
 Third Most Important _____
 Fourth Most Important _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(3) 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 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 legal systems? |
| | 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? |

*Escaped Prisoner cont'd***IMPORTANCE**

Great Much Some Little No

-
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?
-
11. How would the will of the people and 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 _____

1. How believable was the behaviour and situation of the main story character?

- | 1 | 2 | 3 | 4 | 5 |
|--------------------------|------------------------|----------------------|--------------------|-----------------------|
| Not at all
believable | A little
believable | Fairly
believable | Very
believable | Totally
believable |

Escaped Prisoner, cont'd

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(4) 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.

*The Doctor's Dilemma cont'd***IMPORTANCE**

Great Much Some Little No

	7. Whether the doctor has sympathy for the woman's suffering or cares more about what society might think.
	8. Is helping to end another's life ever 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 behaviour.
	11. Can society afford to let everybody end 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 _____

The Doctor's Dilemma, cont'd

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(5) 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 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 Mr. Lee

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?
-

Webster cont'd

IMPORTANCE

Great Much Some Little No

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?

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?

Webster, cont'd

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

Most Important _____
 Second Most Important _____
 Third Most Important _____
 Fourth Most Important _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(6) 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 the 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 the principal's approval. The principal approved all of them and Fred published two issues of the paper 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?

*Fred and the Newspaper, cont'd***IMPLICATIONS**

Great Much Some Little No

	5. Does the principal have the freedom of speech to say "no" in this case?
	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 judgements?
	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.

Fred and the Newspaper, cont'd

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

Most Important _____
 Second Most Important _____
 Third Most Important _____
 Fourth Most Important _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

2) Defining Issues Test: Sex-reversed Form**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.

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 statement #1 is not important in making a decision about buying a car, check the space on the right.)

Sample Question, cont'd

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 used car be more economical in the long run than a new 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 connibilies 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 second, third, and fourth most important choices. (Note that the top choices in this case will come from 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.)

MOST IMPORTANT	5
SECOND MOST IMPORTANT	2
THIRD MOST IMPORTANT	3
FOURTH MOST IMPORTANT	1

Instructions for Part C (Sample Question). This section does not form part of the original DIT. It is modelled after the research of Orchowsky and Jenkins, (1978):

The following questions are to be answered:

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

Circle 1 if the behaviour and situation of the main story character is not at all believable.

Circle 2 if the behaviour and situation of the main story character is a little believable.

Circle 3 if the behaviour and situation of the main story character is fairly believable.

Circle 4 if the behaviour and situation of the main story character is very believable.

Circle 5 if the behaviour and situation of the main story character is totally believable.

Part C (Sample Question) cont'd

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

Circle 1 if it was not at all difficult to put yourself in the place of the main story character.

Circle 2 if it was a little difficult to put yourself in the place of the main story character.

Circle 3 if it was fairly difficult to put yourself in the place of the main story character.

Circle 4 if it was fairly difficult to put yourself in the place of the main story character.

Circle 5 if it was extremely difficult to put yourself in the place of the main story character.

(1) HELGA AND THE DRUG

In Europe a man was near death from a special kind of cancer. There was one drug that the doctors thought might save him. It was a form of radium that a druggist in town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. The sick man's wife, Helga, went to everyone she knew to borrow the money, but she could only get together about \$1000, which is half of what it cost. She told the druggist that her husband was dying, and asked him to sell it cheaper or let her pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Helga got desperate and began to think about breaking into the man's store to steal the drug for her husband.

Should Helga 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 wife to care so much for her husband that she'd steal? |
| | 3. Is Helga willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help? |
| | 4. Whether Helga is a professional wrestler or has considerable influence with professional wrestlers. |
| | 5. Whether Helga is stealing for herself or doing this solely to help someone else. |

Helga and the Drug, cont'd

IMPORTANCE

Great Much Some Little No

	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.
	8. What values are going to be the basis for governing how people act toward each 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 _____

Helga and the Drug, cont'd

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable.	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(2) 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 end 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 she 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 it 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? |

*Student Takeover, cont'd***IMPORTANCE**

Great Some Much Little No

- | Great | Some | Much | Little | No |
|-------|------|------|--------|--|
| | | | | 5. Whether the president stayed within the limits of her authority in ignoring the faculty vote. |
| | | | | 6. Will the takeover anger the public and give all students a bad name? |
| | | | | 7. Is taking over a building consistent with the principles of justice? |
| | | | | 8. Would allowing one student take-over encourage many other student take-overs? |
| | | | | 9. Did the president bring this misunderstanding on herself 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. |

Student Takeover cont'd

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

Most Important _____
 Second Most Important _____
 Third Most Important _____
 Fourth Most Important _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(3) ESCAPED PRISONER

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

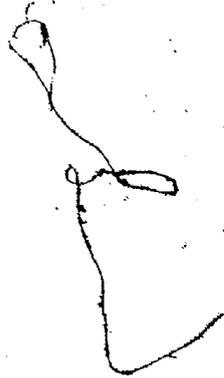
Should Mrs. Jones report Ms. Thompson to the police and have her sent back to prison? (Check one)

Should report her Can't decide Should not report her

IMPORTANCE

Great Much Some Little No

- | | |
|--|---|
| | 1. Hasn't Ms. Thompson been good enough for such a long time to prove she 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 legal systems? |
| | 4. Has Ms. Thompson really paid her debt to society? |
| | 5. Would society be failing what Ms. Thompson should fairly expect? |
| | 6. What benefits would prisons be apart from society, especially for a charitable woman? |



*Escaped Prisoner, cont'd***IMPORTANCE**

Great Much Some Little No

-
7. How could anyone be so cruel and heartless as to send Ms. Thompson to prison?
-
8. Would it be fair to all the prisoners who had to serve out their full sentences if Ms. Thompson was let off?
-
9. Was Mrs. Jones a good friend of Ms. Thompson?
-
10. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?
-
11. How would the will of the people and public good best be served?
-
12. Would going to prison do any good for Ms. 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 _____

Escaped Prisoner, cont'd

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(4) 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)

- She 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. |

*The Doctor's Dilemma, cont'd***IMPORTANCE**

Great Much Some Little No

	6. What is the value of death prior to society's perspective on personal values.
	7. Whether the doctor has sympathy for the woman's suffering or cares more about what society might think.
	8. Is helping to end another's life ever 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 herself in her own personal code of behaviour.
	11. Can society afford to let everybody end 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 _____

The Doctor's Dilemma, cont'd

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(5) WEBSTER

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

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

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

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

IMPORTANCE

Great Much Some Little No

- | | |
|--|---|
| | 1. Does the owner of a business have the right to make her own business decisions or not? |
| | 2. Whether there is a law that forbids racial discrimination in hiring for jobs. |
| | 3. Whether Ms. Webster is prejudiced against Orientals herself or whether she means nothing personal in refusing the job. |
| | 4. Whether hiring a good mechanic or paying attention to her customers' wishes would be best for her business. |

Webster, cont'd

IMPORTANCE

Great Much Some Little No

	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 Ms. Webster's society feel like her customers or are a majority against prejudice?
	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 Ms. Webster's own moral beliefs?
	10. Could Ms. 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?

Webster, cont'd

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

Most Important _____
 Second Most Important _____
 Third Most Important _____
 Fourth Most Important _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable.	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

(6) NEWSPAPER

Fran, a senior in high school, wanted to publish a mimeographed newspaper for students so that she could express many of her opinions. She 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 Fran started her newspaper, she asked the principal for permission. The principal said it would be all right if before every publication Fran would turn in all her articles for the principal's approval. Fran agreed and turned in several articles for the principal's approval. The principal approved all of them and Fran published two issues of the paper in the next two weeks.

But the principal had not expected that Fran'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 Fran'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 Fran to stop publishing. He gave as a reason that Fran'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?

Newspaper, cont'd

IMPLICATIONS

Great Much Some Little No

- | Great | Much | Some | Little | No | |
|-------|------|------|--------|----|---|
| | | | | | 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? |
| | | | | | 6. If the principal stopped the newspaper would he be preventing full discussion of important problems? |
| | | | | | 7. Whether the principal's order would make Fran lose faith in the principal. |
| | | | | | 8. Whether Fran was really loyal to her school and patriotic to her country. |
| | | | | | 9. What effect would stopping the paper have on the student's education in critical thinking and judgements? |
| | | | | | 10. Whether Fran was in any way violating the rights of others in publishing her 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. |

Newspaper, cont'd

IMPLICATIONS

Great Much Some Little No

12. Whether Fran 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 _____

1. How believable was the behaviour and situation of the main story character?

1	2	3	4	5
Not at all believable	A little believable	Fairly believable	Very believable	Totally believable

2. How difficult was it to put yourself in the place of the main story character?

1	2	3	4	5
Not at all difficult	A little difficult	Fairly difficult	Very difficult	Extremely difficult

3) Bem Sex-Role Inventory*

Directions

On the opposite side of this sheet, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example : sly

- Write a 1 if it is never or almost never true that you are sly.
- Write a 2 if it is usually not true that you are sly.
- Write a 3 if it is sometimes but infrequently true that you are sly.
- Write a 4 if it is occasionally true that you are sly.
- Write a 5 if it is often true that you are sly.
- Write a 6 if it is usually true that you are sly.
- Write a 7 if it is always or almost always true that you are sly.

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*Note: Reproduced by special permission of the Publisher, Consulting Psychologists Press, Inc., Palo Alto, CA, 94306, from *Bem Sex-Role Inventory (Manual)* by Sandra L. Bem, 1978. (The typing format of the Bem Sex-Role Inventory, as reproduced here is not identical to that of the original form).

Bem Sex-Role Inventory (Example), cont'd

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	Irresponsible	7
Malicious	1	Carefree	5

- 1=Never or almost never true
 2=Usually not true
 3=Sometimes but infrequently true
 4=Occasionally true
 5=Often true
 6=Usually true
 7=Always or almost always true

INVENTORY:

- Defend my own beliefs _____
- Affectionate _____
- Conscientious _____
- Independent _____
- Sympathetic _____
- Moody _____
- Assertive _____
- Sensitive to needs of others _____
- Reliable _____
- Strong personality _____
- Understanding _____
- Jealous _____
- Forceful _____
- Compassionate _____
- Truthful _____
- Have leadership abilities _____
- Eager to soothe hurt feelings _____
- Secretive _____
- Willing to take risks _____
- Warm _____

4) Background Questionnaire

Instructions : On the pages that follow you will find a series of questions on your personal background. Circle *one* answer for each question and/or fill in the blanks as directed.

1. Name: _____ (first name) _____ (last name)
2. Sex (1) male (2) female
3. Age: _____ years, _____ months
4. Marital status:
 - (1) single
 - (2) married
 - (3) divorced
 - (4) separated
 - (5) widowed
5. Ethnic background:
 - (1) white
 - (2) black
 - (3) asian
 - (4) hispanic
 - (5) native
 - (6) other _____
6. Your first language:
 - (1) English
 - (2) French
 - (3) other _____
7. Place of growing up:
 - (1) a big city (e. g. Montreal, population = 1,001,300)
 - (2) a small city (e. g. Halifax, population = 114,594)
 - (3) a town (e. g. Kentville, population = 4974)
 - (4) a farm or rural area (e. g. Avonport, population = 283)

Background Questionnaire, cont'd

8. Religion:

- (1) Catholic
- (2) Protestant
- (3) Jewish
- (4) other _____
- (5) none

9. What influence does religion have on your present-day life?

- (1) great
- (2) some
- (3) little
- (4) none

10. Are you a (1) full-time or (2) part-time student?

11. If employed, do you work (1) full-time or (2) part-time?

12. What is your area of study?

- (1) science
- (2) arts
- (3) commerce
- (4) engineering
- (5) education
- (6) other _____

13. What is your major? _____

APPENDIX E

Table 3

Table 3

Raw Score Means, Medians, and Standard Deviations for the Femininity, Masculinity, and F-Minus-M Difference Scores

	Original BSRI			<i>t</i>
	Sexes Combined ^a	Females (N=340)	Males (N=476)	
Femininity				
Mean	4.82	5.05	4.59	11.95**
Median	4.90	5.10	4.60	
SD	.59	.53	.55	
Masculinity				
Mean	4.95	4.79	5.12	7.03**
Median	4.95	4.80	5.10	
SD	.68	.66	.65	
F-minus-M				
Mean	-.01	6.30	-6.33	13.09**
Median	.97	6.83	-6.50	
SD	14.94	13.35	13.73	

^aThis sample has been statistically weighted so as to equalize the number of males and females.

** $p < .001$

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Table 3. cont'd

Present Sample				
	Sexes Combined	Females (N=284)	Males (N=286)	t
Femininity				
Mean	4.74	5.02	4.46	-11.09*
Median	4.75	5.05	4.50	
SD	.67	.59	.62	
Masculinity				
Mean	4.80	4.56	5.05	8.14*
Median	4.85	4.57	5.10	
SD	.76	.73	.71	
F minus M				
Mean	-.068	.459	.591	-12.90*
Median	-.10	.50	-.65	
SD	1.1	.966	.977	
*p<.000				

APPENDIX F

Table 4

Table 4

A Comparison of Subject Classification on the BSRI between the Bem Normative Sample (Bem, 1981) and the Present Study Sample (1986-87).

Percent Classified in the Bem Normative Sample, N = 816				
	Feminine	Masculine	Androgynous	Undifferentiated
Females	39	12	30	18
Males	12	42	20	27

Percent Classified in the Present Study Sample, N = 570				
	Feminine	Masculine	Androgynous	Undifferentiated
Females	45.1	10.6	21.8	17.3
Males	10.8	43.4	17.5	21.7

Note. The minor discrepancies between the percentages of the two samples may be a function of the "Borderline" subjects, whose BF and/or BM scores fell on the median(s). These subjects were not included in the present study, while they were incorporated in the Bem (1981) study. In the present sample, the percentage of female borderline subjects was 5.3%, while the percentage of male borderline subjects was 6.6%.