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Differences between Guilt Proneness and Anxiety Proneness on Field Independence, Locus of Control, Empathy, and Religiosity

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DIFFERENCES BETWEEN GUILT PRONENESS AND ANXIETY PRONENESS ON FIELD
INDEPENDENCE, LOCUS OF CONTROL, EMPATHY, AND RELIGIOSITY

by

Gerald Joyce

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of Loyola University of Chicago in Partial Fulfillment
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LIFE

Gerald P. Joyce was born on March 30, 1935, in Chicago, Illinois.

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CHAPTER I

INTRODUCTION

This study proposed that guilt proneness and anxiety proneness are best regarded as separate constructs, and that they differ in their relationships with field independence, locus of control, empathy, and religiosity. Furthermore, it attempted to integrate the concept of guilt proneness into a wider theoretical network for each sex.

Guilt is regarded as a significant aspect of life by various disciplines, e.g., contemporary literature (Brown, 1973), existential philosophy (Morano, 1973), theology and religion (McConahay & Hough, 1973). In psychology, guilt has frequently been considered as undesirable as the bitter price paid for community living (Freud, 1930), or as a neurotic symptom (Campbell, 1975). Recently two trends have developed: first several authors have suggested that guilt can have a constructive effect by motivating desirable changes in behavior or by increasing one's sensitivity to others (Campbell, 1975; Hoffman, 1970; Menninger, 1973; Mowrer, 1966); second, empirical research about guilt has been stimulated by the development of psychometrically sound instruments (Gattell, 1973; Evans, Jessup, & Hearn, 1975; Mosher, 1966, 1968; Otterbacher & Munz, 1973).

When considered as a constructive influence, guilt is probably better conceptualized not in psychoanalytic terms as a derivative of the oedipal problem, but as one aspect of moral development within the context

of total personality development. In this approach moral responses (including guilt), which originally developed out of fear associated with attempts to obtain certain satisfactions, may continue to exist for quite different reasons. Secondly, this approach provides a better theoretical framework for understanding the rational formation and reappraisal of moral values and behavior during adolescence and adulthood (Bieber, 1972; Erikson, 1964; Hartman, 1960). Several personality characteristics seem to be especially relevant to the development and functioning of moral understanding, namely, field independence (Witkin, Dyk, Faterson, Goodenough, & Karp, 1962), locus of control (Rotter, 1966), empathy (Hogan, 1969), and religiosity (Rohrbaugh & Jessor, 1975). At the same time, guilt is often discussed in terms of, or in relation to, anxiety.

The present study examined the relationship of guilt proneness (Mosher, 1966, 1968) and anxiety proneness (Spielberger, Gorsuch, & Lushene, 1970) to these personality characteristics. It proposed that guilt proneness and anxiety proneness differ from each other, and differ in their relationships to the personality variables. The investigation of sex differences is included not because women may be more guilt prone than men (Heying, Korabik, & Munz, 1975), but because they differ on the other personality variables and, possibly, on previous conditioning regarding specific moral issues. For example, women may be more stringently controlled by external norms (Heying & Munz, 1974). Hence, it is not clear whether the other personality variables included here are related to guilt in the same way for men and women. The personality variables and several hypotheses are discussed in the following section.

CHAPTER II

REVIEW OF RELATED LITERATURE

Guilt

Several preliminary notions may help to clarify the meaning of guilt proneness, its definition, and relationship to other forms of anxiety.

First, guilt has been considered previously from various perspectives, frequently with some degree of arbitrariness, and usually in terms of resistance to temptation, self-criticism, remorse after transgression, confession, expiation, and/or punishment. Second, guilt is ordinarily considered objective if it follows actual or intended wrongdoing; neurotic if it generally follows the mere thought or fantasy about wrongdoing; existential if it reflects a sense of cosmic disproportion between what is and what ought to be. Third, guilt is considered a form of moral anxiety, a regulating force, a superego style; in this it is similar to shame (Lewis, 1971). However, guilt is said to differ from shame for several reasons: guilt involves a conflict between the ego and the superego, whereas shame involves a conflict between the ego and the ego-ideal (Piers & Singer, 1953); also, guilt involves internal sanctions, whereas shame is a response to external sanctions alone (Ausubel, 1955); finally, guilt and shame are related to empirically differentiated adaptive styles (Lewis, 1971; Smith, 1972).

Fourth, guilt can be measured in a global way, i.e., total guilt

feelings across several different situations, or in a specific way, i.e., guilt over particular issues. Mosher (1966, 1968) differentiated specific areas of guilt, namely, sex, aggression, and morality-conscience. Others indicate that a global measure is not theoretically useful (Fiske, 1971) and lacks empirical support (Mischel, 1974). Within specific content areas there is a further question about the relationship between resistance to temptation and remorse after transgression. Psychoanalytic theory suggests a positive relationship based on the notion that resistance is motivated by the desire to avoid the pain of guilt. However, only slight support has been found for this relationship (Becker, 1964; Johnson, Ackerman, & Frank, 1968). Hoffman's (1970) theory of "dynamic consistency" may provide some clarification, suggesting that resistance and remorse (as typifying the post-transgression reaction) are positively related only in regard to a specific content area and only at a certain level of maturity. The present writer suggests that this may not result until the end of adolescence, perhaps due to a particular kind of stabilization (Kohlberg & Kramer, 1969).

Fifth, a meaningful distinction can be made between state guilt, i.e., the transitory feeling of the moment, and trait guilt, i.e., a relatively stable disposition or tendency to respond in a certain way. Spielberger (1966, 1972a) has summarized the value of this distinction in the study of anxiety. Mosher (1968) and Okel and Mosher (1968) made a similar distinction regarding guilt. In particular, they described trait guilt as an acquired disposition to avoid guilt-inducing behaviors or to respond to committed transgressions with state guilt. Mosher includes both resistance and remorse in accord with psychoanalytic theory.

Without debating the theory, the same combination seems feasible in terms of Hoffman's (1970) theory of dynamic consistency. Otterbacher and Munz (1973) also developed measures of state and trait guilt, describing the latter as a generalized self-concept derived from the subjective averaging of the individual's perception of his guilt states. Mosher focuses on a cognitive aspect of trait guilt, while Otterbacher and Munz focus on an affective aspect. Both constructs have some validity; however, Janda and Magri (1975) found no empirical relationship between them and concluded that they are independent aspects of trait guilt.

Finally, since the time of Freud (1930), guilt has been discussed in relation to anxiety (fear). This relationship has been explained in various ways, not always with a great deal of clarity. Perhaps a brief description of several theoretical positions regarding guilt and anxiety as states can provide a background for discussing their relationship as traits. According to Mandler and Watson (1966) guilt and anxiety are basically the same because they involve the interruption of an organized response sequence without offering an alternative; however, they are given different labels because they arise in different situations. "Anxious guilt" results when one's continuing efforts to right (i.e., un-do) a wrong are interrupted, but no alternatives are available; as a result the individual is left feeling helpless. Izard (1972) conceptualizes anxiety as a pattern of emotions, as an unstable and variable combination of interacting fundamental emotions (e.g., fear, anger, guilt, distress). Guilt is not the same as fear, but occurs only as a component of a larger anxiety pattern, in which fear is always dominant.

Freud described both the origin and continuing experience of guilt as based on fear. At first, there is fear of parental punishment and of losing parental love; later, fear of a critical and punishing superego develops, as well as fear of the larger society which takes the place of the parents. Finally, other authors consider guilt and anxiety as different constructs, but suggest that they are frequently found together. This occurs because the laboratory or real-life situation, which involves guilt over wrongdoing, also includes either a further threat to the integrity of the self-concept (Epstein, 1972) or the added uncertainty of external punishment (Gardner, 1970); the latter dimensions occasion the anxiety.

Some of the difficulty in defining and differentiating guilt and anxiety as states is also apparent in their analysis as traits. Previous research has been conflicting, but tends to support a distinction between guilt proneness and anxiety proneness. Lowe (1964), using the Taylor Manifest Anxiety Scale and a similar MMPI-based guilt scale, found a very high correlation and concluded that the two constructs, as measured by self-report, are equivalent. Levitt (1967) concluded in his brief review that the anxious personality is much given to guilt. Cattell and Scheier (1961) found that "guilt proneness" loaded on trait anxiety. However, contrary to the Freudian view, a "strong superego" was not related to anxiety among normal subjects, even though it might be related among maladjusted patients. Note that "guilt proneness" is understood not as a liability to pangs of guilt, but as a global sense of inadequacy, loneliness, and tears (Cattell, 1973). Finally, Mosher (1966) found that among male subjects trait anxiety, measured by the Manifest Anxiety Scale, was not related to his measure of total guilt, nor to specific measures of

hostility guilt or morality-conscience guilt; although it was related negatively to a specific measure of sex guilt. Later a positive relationship was found between hostility guilt and anxiety measured by the Welsh Anxiety subscale of the MMPI (Knott, Lasater, & Shuman, 1974).

In summary, trait guilt and trait anxiety are described in three different ways: as equivalent, as positively related, and as independent. Although Lowe's (1964) measure of guilt is relatively unknown, Cattell (1973), Mosher (1966) and Knott et al. (1974) indicated that the picture is not clear, at least among male subjects. The absence of a relationship between anxiety and total guilt becomes rather meaningless if sex guilt and hostility guilt are found related in opposite ways to anxiety. The positive relationship between Cattell's (1973) "guilt proneness" and trait anxiety is not surprising, and does not contradict the previous statement. The interpretation of that scale, together with evidence that it loads with abasement on a factor independent of trait guilt (Schwartz, 1973), suggests that "guilt proneness" may not focus on moral guilt.

In view of the preceding discussion, the present study was concerned with an objective understanding of guilt, conceptualized as a disposition within specific content areas both to resist temptation or, after transgression, to engage in self-criticism, remorse, confession, or expiation (Mosher, 1966, 1968). The terms trait guilt and guilt proneness were considered synonymous. Guilt proneness was operationally defined by the Mosher Forced-Choice Guilt Inventory, which includes separate forms for men and women, and provides a score for total guilt, as well as for sex guilt, hostility guilt, and morality-conscience guilt.

The uncertain relationship between trait guilt and trait anxiety in the previous studies, which did not include a female sample, indicates the need for further clarification. The present study examined the relationship between trait guilt and trait anxiety (Spielberger et al., 1970) with male and female subjects. Trait anxiety refers to relatively stable individual differences in anxiety proneness. It was considered as an acquired predisposition both to view the world in a particular way and to respond in situations perceived as threatening with conscious feelings of tension and apprehension, and with heightened autonomic nervous system activity. Spielberger's (1972b) theory suggests that subjects high on trait anxiety are more self-depreciating, perceive a wider range of situations as threatening, and become particularly apprehensive in situations that involve failure or loss of self-esteem. Conceivably, such individuals may experience increased state anxiety when confronted with a temptation or moral transgression; perhaps they tend to develop a chronic sense of guilt which borders on the neurotic; however, they do not seem likely to score very high on a cognitive measure of trait guilt. At the same time, as Erikson (1964) noted, the mature "ethical" sense presupposes an earlier morality which was based on fear of threats (including both punishment and the inner sense of guilt). Some residual effects of this morality may still be operative.

It was hypothesized that trait guilt and trait anxiety are different constructs, being either statistically independent or only slightly related. Secondly, since increased sexual arousal is accompanied by increased anxiety in female (Mosher & Greenberg, 1969) but not in male subjects (Schill, 1972a), it was hypothesized that anxiety and sex guilt

are positively related among female but not among male subjects. Other relationships and sex differences were also explored.

At the same time, certain individuals are considered to be more guilt prone than others (Izard, 1972; Smith, 1972). This does not mean that the latter individuals would necessarily be involved in more immoral behavior, but that they have different reasons, e.g., shame or fear, for resisting temptation or feeling unpleasant after transgression.

Psychological Differentiation

Witkin and his colleagues (Witkin et al., 1962; Witkin, Oltman, Raskin, & Karp, 1971) conceptualize psychological differentiation as a single underlying process of development toward greater psychological complexity. More basic and more pervasive than a cognitive style, the level of differentiation is an influential determinant in many areas, e.g., perception, cognition, body concept, sense of separate identity, and nature of defenses.

The theory rests upon voluminous research which began in the area of spatial perception (Witkin, Lewis, Hertzman, Machover, Meissner, & Wapner, 1954) on tasks that required the disembedding of an element from its surrounding field. Those dominated by the organization of the field and perceiving the parts of the field as fused are said to perceive in a field-dependent way. Those experiencing the parts of the field as discrete from the organized ground are said to perceive in a field-independent way. As a result of research in other areas the field-dependent approach is described as diffuse, global, and dominated by the field, whereas the field-independent approach is described as detailed, articulate, and imposing structure. Eventually these differences were

encompassed within the construct of differentiation which represents a developmental continuum characterized by increasing specialization.

Witkin et al. (1971) summarized their position as follows:

Thus we consider it more differentiated if, in his perception of the world, the person perceives parts of the field as discrete and the field as structured . . . if, in his concept of his body, the person has a definite sense of the boundaries of the body and the interrelation among its parts . . . if the person has a feeling of himself as an individual distinct from others and has internalized, developed standards to guide his view of the world and of himself . . . if the defenses the person uses are specialized. It is reasonable to believe that these various characteristics, which we have found to cluster together, are not the end products of development in separate channels, but are diverse expressions of an underlying process of development toward greater psychological complexity.
(p. 9-10)

Despite problems about the meaning of differentiation (Nisbett & Temoshok, 1976; Wachtel, 1972), about the single (Adams, 1974; Witkin & Berry, 1975) or multiple (Bergman & Englebrektson, 1973) factor structure of the rod-and-frame test or the embedded figures test, and about the adequacy of certain measures (Arbuthnot, 1972), the theory has stimulated an immense amount of research and synthesized a wide range of data. This includes several important aspects of moral development: internalization of principles (Witkin et al., 1962), moral reasoning (Arbuthnot, 1974; Schleifer & Douglas, 1973), role playing (Futterer, 1973), and empathy (Martin & Toomey, 1973). In particular, the theory makes certain predictions, which have received some support, about shame, guilt, and anxiety (Lewis, 1971; Witkin et al., 1962; Witkin, Lewis, & Weil, 1968).

First, there are similarities between field-independent functioning and the experience of guilt. The field-independent individual is more capable than the field-dependent of disembedding himself from

his surroundings (including other persons), of using internalized standards to evaluate himself rather than looking to others for approval and evaluation (Pearson, 1972; Willoughby, 1967), of separating his thoughts from his feelings, of experiencing articulated rather than global affect. Guilt, in turn, involves internal standards rather than comparisons with the standards and expectations of others, considers self the judge rather than real or imagined others, requires a more ideational focus on the specific act and making amends rather than a diffuse focus on the whole self as being inferior or ashamed (Witkin et al., 1968). In view of these similarities, field-independent individuals seem to be more guilt prone than field-dependent individuals.

Witkin et al. (1968) found some support for this relationship in their study of the affective reactions, i.e., state guilt, of eight neurotic patients during the first two sessions of psychotherapy. However, these results may be limited to the therapeutic situation, to the first few sessions of therapy, or to neurotic subjects. Therefore, further research with normal subjects is indicated.

Second, Witkin et al. (1962) originally presented some evidence that the less structured defense system of the field-dependent person would lead to greater expression of anxiety. However, a later study confirmed an apparently different hypothesis, namely, that field-independent and field-dependent patients would not differ regarding the total amount of anxiety expressed, but that field-dependent patients would express more diffuse anxiety, because of the global quality of their affective experience (Witkin et al., 1968). Other studies with 12-year-old and adult subjects of both sexes failed to find a relationship between the Hidden Figures Test and two measures of anxiety, the

Manifest Anxiety Scale and the Institute for Personality and Ability Testing Anxiety Scale (Dargel & Kirk, 1973; Joshi, 1974). Hence, there seems to be no relationship between field independence and trait anxiety, and a negative relationship between field independence and the expression of diffuse anxiety.

In the present study, therefore, it was hypothesized that guilt and anxiety are related to field independence in different ways among normal subjects: Field independence is positively related to trait guilt, and either negatively related to, or independent of, trait anxiety.

The scope of differentiation theory necessitates the study of other variables that may moderate the relationship with guilt and anxiety. Two such variables are locus of control and empathy. Each has been discussed in relation to field independence and both appear to be related to guilt and anxiety.

Locus of Control

Szasz (1973) and Menninger (1973) described a tendency of some individuals to explain away the reality of evil, the fact of man's inhumanity to man. These persons are said to blame external forces--the devil, mental illness, whatever--to avoid accepting personal responsibility and its concomitant obligation of asserting as much rational control as possible (Pittel, 1960). These authors present no empirical evidence; however, there seem to be similarities between their ideas and some of the research connected with locus of control.

According to Rotter (1966) people differ in the degree to which they attribute positive or negative reinforcement to their own efforts or to outside forces. Internal control refers to the perception of

reinforcing events as consequences of one's own behavior and, thereby, under personal control. External control refers to the perception that events are unrelated to one's behavior and, thus, beyond personal control. In Rotter's theory of personality this belief or expectancy is an essential element in determining the probability of a particular behavior. This construct has stimulated a great deal of research and its influence is recognized in a variety of situations (Lefcourt, 1966, 1972).

There are direct and indirect reasons for suggesting that the notion of personal control, of felt effectiveness, is related to such behavior as resistance to temptation and remorse, etc., after transgression. First, among the indirect reasons, internals regard their behavior as the cause of certain consequences. They perceive a stronger link between intention and outcome than externals do. For example, internals were found to assume greater responsibility for the consequences of their behavior (Phares, Wilson, & Klyver, 1971) and to engage in more self-blame after receiving negative evaluation than externals do (Davis & Davis, 1972). Secondly, locus of control does influence the attribution of responsibility for a "bad deed," at least in regard to others. Thus, Sosis (1974) found that internals hold a person more responsible and judge him more harshly for an accident than externals do. Externals, on the other hand, seem to believe that if people are not masters of their fate, then a person who commits a negative act is not necessarily responsible for the effects of that act. These studies, although not in the specific area of personal moral behavior, do emphasize the pertinent elements of placing responsibility and engaging in self-criticism. Thus, they indirectly suggest a relationship between locus of control and

guilt.

Direct evidence for this relationship and the presence of a sex difference is indicated in three studies. Johnson et al. (1968) used separate global measures of resistance and remorse, which were based on eight projective stories, to test the hypothesis that internals are higher on resistance because of their greater tendency to delay gratification. They found male internals higher on resistance and on remorse, but found no relationship among female subjects. Adams-Webber (1969) used a global measure of moral sanctions, which was based on two projective stories, to test the hypothesis that internals would emphasize self-blame and guilt feelings because these depend only on the individual's judgment and are directly contingent upon the immoral act whereas externals would emphasize detection and punishment, or even deny personal blame. In support of the hypothesis, highly significant differences were found between the sanctions described by internals and externals. However, he found no sex differences, noted the discrepancy with Johnson et al.'s study, and recommended further research to resolve the ambiguity. Finally, Schwartz (1973) with no specific hypothesis tested the "unclear" relationship between total guilt on the Mosher True-False Guilt Inventory and locus of control. He found a slight tendency for externals to be higher on guilt with a combined sample of male and female subjects.

Schwartz's (1973) results do not fit the previous theoretical description or research. Inasmuch as Schwartz did not offer any comment or explanation, it remains unclear to the present writer why externals were higher on guilt. Possibly this is a case in which the generalized expectancy of locus of control is outweighed by a specific expectancy regarding the moral situation. That is, negative reinforcements related

to immoral behavior may be so well learned that they have greater influence than locus of control. For this reason externals may score higher on a measure of conventional morality.

The present study repeated Schwartz's study, but also included specific measures of guilt and the necessary control for sex differences (Johnson et al., 1968). It was hypothesized that male internals score higher on total guilt than externals. No predictions were made about female subjects.

In addition, several studies indicated that the combination of differentiation and locus of control, which are statistically independent (Lefcourt & Telegdi, 1971; Rotter, 1966; Strahan & Huth, 1975), led to more precise predictions across several cognitive, perceptual, and personality measures (Lefcourt, Gronnerud, & McDonald, 1973; Tobacyk, Broughton, & Vaught, 1975). Lefcourt and Telegdi suggested that certain combinations are congruent (i.e., field-independent internals, field-dependent externals), while others are incongruent (i.e., field-independent externals, field-dependent internals). The congruent groups performed more effectively on cognitive and perceptual tasks and were better adjusted according to an actual-self/ideal-self Q-sort. This was particularly true of the field-independent internals. Tobacyk et al. suggested further research to determine how pervasive a combined "perceptual expectancy" style may be. The present study, therefore, explored this style in relation to guilt. In view of the earlier discussion and the present notion of congruency, it was hypothesized that field-independent internals score higher on guilt than the other groups.

Regarding anxiety, a number of studies indicated that externals are more anxious than internals, at least on measures such as the Manifest

Anxiety Scale and the Institute for Personality and Ability Testing Anxiety Scale, apparently because they more often appraised the world as a place in which they cannot complete organized sequences of behavior (Watson, 1967) or lack control over reinforcing events (Lichtenstein & Keutzer, 1967; Ray & Katahn, 1968; Strassberg, 1973). Others found no relationship between locus of control and a nonobtrusive measure of social anxiety (Donovan, Smith, Paige, & O'Leary, 1975).

In the present study it was hypothesized that guilt and anxiety are related to locus of control in different ways: Internals are more prone to guilt than externals and externals are more prone to anxiety than internals. Also, since field-independent internals show signs contraindicating anxiety, namely, higher cognitive performance and better adjustment, they were hypothesized to be less prone to anxiety than the other groups.

Previous research indicated that predictions based on the Rotter I-E scale may be weak because the scale is multidimensional (Collins, 1974; Joe, 1971; Klockars & Varnum, 1975; Mirels, 1970; Strahan & Huth, 1975; Viney, 1974). Mirels found two factors which are similar for male and female subjects: first, a belief concerning felt mastery over the course of one's life; second, a belief concerning the extent to which one is capable of exerting an impact on political institutions. Other investigations have found similar factors (Strahan & Huth, 1975; Viney, 1974). Presumably, Mirels' first factor has greater relevance in the present study. Its influence, therefore, is noted.

Empathy

Although differentiation refers to the overall complexity of the

psychological system and locus of control refers to a cognitive belief, empathy represents an affective dimension which is theoretically important and is related to guilt and anxiety in different ways. In general, empathy refers to an awareness and sensitivity regarding the needs and feelings of others, to an ability to "stand in the shoes of the other." Within a moral perspective, empathy refers to the consideration of the implications of one's behavior for others.

Various theories incorporate the notion of empathy. Within a neo-analytic framework, Bieber (1972) emphasized the need to include compassion as a nonsuperego function but an essential element in moral man. Kohlberg's (1969) stages of moral reasoning reflect an expanding capacity to take the role of the other. Hogan (1969, 1973) listed empathy as one of the five dimensions necessary to explain moral development and conduct. Hoffman's (1970, 1973) theory rests ultimately upon the capacity to experience the inner states of others and to transform empathic distress into sympathetic concern for others. For Hoffman, guilt is sympathetic distress over another's distress, with the realization that one has freely caused that distress. Finally, if altruism may be considered positive moral behavior, empathy is considered a major determinant in this area (Berkowitz, 1972; Krebs, 1975).

The empathic person focuses not so much on moral rules and prohibitions, as on persons and how they are affected by his behavior. Perhaps empathy specifies a particular kind of internalization, i.e., a felt understanding of what it is about certain actions that makes them immoral. The empathic person's deeper awareness of the needs and feelings of others, and how they may be affected, may lead to greater resistance and, in the case of transgression, to greater remorse. This seems

particularly true regarding hostility.

Anxiety and empathy appear to be negatively related. The anxious person is preoccupied with his own needs, fears and uncertainties; hence, he is less likely to place himself imaginatively in the position of the other. Hogan (1969), using his empathy scale and the Manifest Anxiety Scale, found a negative relationship for medical school applicants and a nonsignificant relationship for college female subjects; using the MMPI Anxiety scale, he found a negative relationship for both groups. Also, Hekmat, Khajavi, and Mehryar (1975), using the empathy scale and the Lanton Psychological Screening Inventory, found a slight negative relationship for both male and female subjects.

In the present study it was hypothesized that guilt and anxiety are related to empathy in different ways: guilt in a positive way, anxiety in a negative way. Also, a positive relationship was predicted between empathy and hostility guilt.

Furthermore, empathy is positively related to differentiation, at least among male subjects (Martin & Toomey, 1973). However, Witkin et al. (1962) suggested that only some field-independent individuals are genuinely empathic and others have a philosophical interest in values and lack interest in people. Perhaps empathy moderates the relationship between differentiation and guilt, with more empathic field-independent subjects being higher on guilt than less empathic ones. This possibility was explored in the present study.

Religiosity

In the popular mind, as Wright (1971) noted, there is an assumption that religion makes people better behaved than they would be without

it. This assumption is probably based on people's experience with, or about, religion: most religions propose a moral code to guide and evaluate behavior; religion is frequently used to motivate behavior, to strengthen prohibitions, to provide sanctions; religion supports conventional morality. However, in the scientific mind the relationship between religion and morality is not so clear; the power of religious belief to influence behavior is a question that "remains largely unanswered" (Parker, 1971).

The general impression drawn from the scientific reviews (Dittes, 1969; Graham, 1972; Parker, 1971; Strommen, 1971; Wright, 1971) is that the question ultimately becomes which aspect of which type of religion is related to which particular moral teaching or behavior? Such an analysis was beyond the scope of this study. However, a religiosity variable was included for several reasons: First, the relationship between religion and guilt continues to be discussed (e.g., McConahay & Hough, 1973). Second, when religiosity is measured only by a few beliefs or church attendance, the results are quite limited. However, Graham (1972) concluded that the overall evidence suggests some relationship; he theorized that religion which measures firm convictions and real commitment may well be associated with avoidance of wrongdoing and sympathetic consideration for others. Third, two recent studies provide some support for this idea, indicating that religious affiliation and, especially, active involvement are associated with greater guilt proneness regarding sex and with less premarital sexual behavior among both male and female subjects (Langston, 1973; Zuckerman, Tushup, & Finner, 1976). Earlier investigations found similar results (Parker, 1971; Walters & Bradley,

1971). In addition, more religious subjects tended to turn their aggression inward, thus engaging in less hostile behavior (Bateman & Jensen, 1958).

Finally, Rohrbaugh and Jessor (1975) developed a religiosity measure that includes not only beliefs and practices, but also personal experience and everyday influence. They tested the hypothesis that religiosity functions as a "personal control against deviant behavior." They found a network of predicted, meaningful relationships among 23 variables to support their hypothesis with the results being stronger for high school seniors than for college juniors.

In regard to anxiety, Dittes (1969) in a review article noted a general assumption that religion--especially when operationally defined in terms of institutional affiliation or adherence to conservative doctrines--is associated with personality deficiencies, including "more desperate defenses." On the other hand, a salutary religious experience could, if necessary, allay anxiety and provide reassurance at least for those who are primarily committed to religion itself, as distinct from the religious institution. More to the point, several factor analytic studies indicated that religion, whether found to be unidimensional (Brown, 1966) or multidimensional (Cline & Richards, 1965), is independent of authoritarianism and neuroticism. Furthermore, Rohrbaugh and Jessor (1975) found the religious person to be quite conventional, conforming, eschewing self-assertion, not lacking in self-esteem, not prone to a particular locus of control orientation, and clearly not maladapted.

In the present study it was hypothesized that guilt and anxiety are related to religiosity in different ways: religiosity is positively related to total guilt, hostility guilt, and sex guilt; religiosity is

independent of anxiety.

Hypotheses

The primary purpose of this review of the literature was to propose that guilt and anxiety can be adequately differentiated and that they differ in relation to differentiation, locus of control, empathy, and religiosity. At the same time individuals more prone to guilt are regarded as differing from those less prone to guilt in identifiable ways. Several hypotheses were proposed, some of them in regard to total guilt to facilitate comparisons with other research. In some cases the literature indicated the importance of sex differences. Despite the theoretical value of studying specific kinds of guilt, there is relatively little research, presumably due to the lack of adequate measures. As a result, the present study included a fair amount of exploratory research to determine and to compare the personality correlates of the specific kinds of guilt for male and female subjects.

The following hypotheses were tested:

1. Guilt proneness and anxiety proneness are adequately differentiated, being either statistically independent or only slightly related.
2. Anxiety and sex guilt are positively related among female but not among male subjects.
3. Field independence is positively related to guilt, but independent of, or negatively related to, anxiety.
4. Internal locus of control is positively related to guilt among male subjects, but negatively related to anxiety among male and female subjects.

5. Field-independent internals are more prone to guilt and less prone to anxiety than the other differentiation/locus of control types.
6. Empathy is positively related to total guilt and to hostility guilt, but negatively related to anxiety.
7. Religiosity is positively related to total guilt, sex guilt and hostility guilt, but independent of anxiety.

CHAPTER III

METHOD

Subjects

The subjects were 50 male and 47 female students attending a variety of summer courses at Loyola University of Chicago. Most were undergraduates. All were volunteers; some received special credit in class.

Sample characteristics: The age range for male subjects was 18 to 47 years with a mean age of 22.54 and a standard deviation of 4.88; only two subjects were over 28. The age range for female subjects was 18 to 46 with a mean age of 22.72 years and a standard deviation of 6.51; only four subjects were over 28.

Religious affiliation: Among the male subjects there were 30 Roman Catholics, 4 Protestants, 9 "other," and 7 none. Among the female subjects there were 22 Roman Catholics, 5 Protestants, 15 "other," and 5 none.

Race: Among the male subjects there were 45 Caucasians, no Negroes, 2 Orientals, and 3 "other." Among the female subjects there were 41 Caucasians, 3 Negroes, 1 Oriental, and 2 "other."

Parochial education: Among the male subjects 31 had elementary or high school or both, 4 had somewhat less, and 15 had none. Among female subjects 25 had elementary or high school or both, 3 had somewhat less, and 19 had none.

Measures

Mosher Forced-Choice Guilt Inventory (Mosher, 1966, 1968): Three separate scales were developed to measure a personality disposition towards guilt in the areas of sex, hostility, and morality-conscience. Separate forms for male and female subjects have 79 and 78 items, respectively. Choices are scaled -2, -1, +1, and +2, with higher scores indicating greater guilt proneness. Items differentiated high- and low-guilt groups; choices were relatively well-matched on social desirability.

Mosher reported a multitrait-multimethod analysis of the measures which provided some evidence of discriminant and convergent validity, and indicated split-half reliabilities on the subscales between .92 and .97 for male and between .76 and .95 for female subjects. Test-retest stability over a 3-week period was .87 for the total guilt score (Amdur & Harrow, 1972). Mosher found the scales to be independent of social desirability; however, sex guilt was later found to correlate .37 with social desirability (Galbraith, Hahn, & Leiberman, 1968). Schwartz (1973) found the total guilt score independent of neuroticism and extraversion on the Maudsley Personality Inventory.

Validity information about the individual subscales: Sex guilt was positively correlated with Sexuality, negatively with Sex Drive and Interest and with Promiscuity on the Thorne Sex Inventory (Galbraith, 1969) and negatively with Heterosexuality on the Edwards Personal Preference Schedule. Construct validity has been substantiated in several studies: High-guilt males inhibited expression of socially taboo words whether disapproval was likely or not, whereas low-guilt males did so only when disapproval, i.e., potential censure, was likely (Mosher, 1965). High-guilt females experienced greater state guilt after exposure to

explicitly sexual literature (Mosher & Greenberg, 1969) or to sexual stimulus words (Janda & Magri, 1975). High-guilt males or females had less permissive standards about premarital sex, engaged in less intimate sexual behavior (Langston, 1973; Mosher & Cross, 1971), and masturbated less often (Abramson & Mosher, 1975). Male sex guilt was the strongest predictor (e.g., stronger than stage of moral reasoning) of the extent of an unmarried couple's sex experiences (D'Augelli & Cross, 1975).

Hostility guilt was negatively correlated with hostility on a projective measure (Schill & Schneider, 1970b) and on the Buss-Durkee Hostility Inventory (Schill & Schneider, 1970a), was not related to self-esteem, dogmatism, or social class, and was positively related to anxiety (Knott et al., 1974). Construct validity has received support in several studies: Low-guilt males expressed more aggressive responses during baseline measurement, were more responsive to reinforcement for aggression, and less responsive to reinforcement for nonaggression, whereas high-guilt subjects did not respond to reinforcement for aggression (Knott et al., 1974). High-guilt subjects expressed less verbal hostility in a verbal conditioning paradigm (Mosher, 1965). High-guilt inmates committed less crimes against people and more against property (Mosher & Mosher, 1966), and committed less crimes overall (Persons, 1970). High-guilt females showed less aggression after being experimentally frustrated (Schill, 1972b). High-guilt males expressed greater state guilt after verbal aggression against a victim (Okel & Mosher, 1968).

Morality-conscience guilt has been investigated in very few studies. Low-guilt males and females had a less critical attitude toward the use of various drugs, used a greater variety of drugs, and expressed

a greater likelihood of continuing to do so (Schill & Althoff, 1975). Morality-conscience and hostility guilt, in combination, correlated .55 with stage of moral reasoning for delinquents (Ruma & Mosher, 1967). Apparently only the first three stages were well represented. It was positively correlated with a measure of superego on the Lazare-Klerman Scale (Amdur & Harrow, 1972).

A copy of the Mosher Forced-Choice Guilt Inventory for men and the scoring key are included in the Appendix.

The State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1970): STAI A-Trait scale consists of 20 statements that ask individuals to describe on a 4-point scale how they generally feel. Scores range from 20 to 80, with higher scores indicating greater proneness to anxiety. The STAI Manual includes normative and psychometric data for the STAI A-Trait Scale. Reliability information: Internal consistency is high with coefficient alphas ranging from .86 to .92 and test-retest coefficients ranging from .73 to .86. Validity information: It correlated from .73 to .80 with the Manifest Anxiety Scale and the Institute for Personality and Ability Testing Anxiety Scale. Construct validity was supported by several studies showing predictable increases in state anxiety under varying conditions. Further, trait anxiety was not related to the various subtests of the Edwards Personal Preference Schedule, except for abasement; correlated positively with the number of problems checked in each area on the Mooney Problem Checklist; correlated positively with the appropriate MMPI scales; and was not related to sex, intelligence, scholastic aptitude, or achievement among college students.

Group Embedded Figures Test (Oltman, Raskin, & Witkin, 1971): It consists of 18 complex figures, 17 of which were taken from the

individually administered Embedded Figures Test. The Manual (Witkin et al., 1971) reported split-half reliability estimates of .82 for male and female subjects. Validity coefficients for male and female subjects, respectively, were as follows: -.82 and -.63 with the individual Embedded Figures Test, -.39 and -.34 with the Rod and Frame Test (coefficients are negative for the Embedded Figures Test and Rod and Frame Test because of reverse scoring), .71 and .55 with degree of body articulation. On the Group Embedded Figures Test higher scorers were more field independent. Males scored slightly higher than females. Another study showed a reliability coefficient of .84 between the first and second half for male subjects, and a correlation with the Rod and Frame Test of -.69 (Dumsha, Minard, & McWilliams, 1973). The Group Embedded Figures Test is considered a satisfactory substitute for the Embedded Figures Test in research requiring group testing.

Rotter Internal-External Locus of Control scale (I-E) (Rotter, 1966): The scale consists of 29 forced-choice items, including six buffer items. Higher scores are more external. Major review articles by Rotter (1966), Lefcourt (1966, 1972), Throop and McDonald (1971) and Joe (1971) have summarized the extensive research on locus of control which indicates satisfactory reliability and validity. Sex differences have sometimes been found.

One major criticism of the I-E scale is its multifactor structure. Mirels (1970) found two factors, replicated for the most part by other authors (Strahan & Huth, 1975). The first factor, which is similar for male and female subjects, includes the following items from the I-E scale: 5, 10, 11, 15, 16, 18, 23, 25, 28. A copy of these items is

included in the Appendix. Both the I-E scale and the Mirels-like components were found to be statistically independent of field independence on the Group Embedded Figures Test (Strahan & Huth, 1975).

Hogan Empathy Scale (Hogan, 1969): The scale consists of 64 items, mostly from the California Psychological Inventory and the MMPI, which discriminated groups independently rated as high and low on empathy. A copy of the scale is included in the Appendix. Higher scores indicate greater empathy. Hogan (1969, 1973) reported psychometric and interpretative information. Test-retest stability over two months was .84. Estimated internal consistency was .71. Validity information: It correlated .58 with social acuity, discriminated students rated high and low on social acuity by their teachers, predicted Q-sort empathy ratings with correlations ranging from .39 to .62, was positively related to social competence and to a factor measuring social and interpersonal adequacy on the California Psychological Inventory, and was not related to a measure of socialization. It predictably differentiated delinquents from nondelinquents, when both were low on socialization (Kurtines & Hogan, 1972), and, also, heroin addicts from collegiate marijuana users (Kurtines, Hogan, & Weiss, 1975). It predictably correlated .48 and .58 with maturity of moral judgment. It correlated negatively with authoritarianism and positively with ego strength. The relationship with intelligence was somewhat ambiguous. Female subjects scored higher than male.

Measure of Religiosity (Rohrbaugh & Jessor, 1975): The scale consists of four pairs of items to operationalize Glock's four dimensions of religiosity, i.e., ritual, consequential, ideological, and experiential.

Institutional affiliation or reference to doctrines of any specific religion are avoided, as is an agreement response set. Items are scored on a 5-point scale from 0 to 4, yielding a composite score of 0 to 32 with high scores indicating greater religiosity. Response variance is broad with a standard deviation of approximately 8. A copy of this measure is included in the Appendix.

Rohrbaugh and Jessor (1975) showed that the psychometric properties of the subscales and composite were satisfactory. Internal consistency was high with a coefficient alpha of .90. Validity information: A number of indications converge to provide some overall evidence of validity. First, it confirmed accepted data about religiosity, e.g., that high school students are more religious than college students and that female subjects are higher than male subjects (though not for the college sample). Second, multiple correlation of the subscales with a self-rating of religious commitment was very high for all four samples. Third, the unidimensional score was supported by the high intercorrelations of the subscales. Fourth, the subscales correlated more among themselves than they did with two other measures of the religious environment. Finally, the study, itself, provided some support for its construct validity as a personal control. It was not related to sex or socioeconomic background among the college sample.

For the present study, the first item concerning frequency of attendance at religious services was modified slightly to facilitate scoring. It read:

How often have you attended religious services during the past year? a) Never. b) A few times. c) About once a month. d) A few times

a month. e) Weekly.

Administration

The Group Embedded Figures Test was administered in small groups, in some cases during class time. The other measures were handed out to the students and returned a few days later. Sixteen individuals did not finish the testing or their protocols were unusable. Most subjects remained anonymous; the others were guaranteed confidentiality.

CHAPTER IV

RESULTS

The results were analyzed separately for male and female subjects. For the exploratory parts of this research two-tailed tests of significance were appropriate and their use is noted; otherwise, one-tailed tests were used. Simple and multiple correlations are described, as well as certain interaction effects. A stepwise multiple-regression analysis was performed with field independence, locus of control, empathy, religiosity, and age as predictor variables, and with anxiety and the four guilt measures as dependent variables. In this procedure the predictor variables were entered in successive steps according to which of them accounted for the largest amount of remaining variance in the dependent variable. In the following description the percentage of increase in \underline{R}^2 accounted for by each predictor is noted in parenthesis.

The means and standard deviations of all variables for both sexes are presented in Table 1. No significant differences were found with t tests between male and female subjects on field independence, locus of control, empathy, religiosity, anxiety, or age. Pearson correlations between all personality variables are presented in Table 2 with a summary of the more relevant significant correlations in Table 3.

Anxiety

As hypothesized, anxiety was found among male subjects to be statistically independent of the four guilt measures. Also, as

Table 1
List of Variables with Means and Standard Deviations
for Male and Female Subjects

Variable	Male (<u>N</u> = 50)		Female (<u>N</u> = 47)	
	Mean	Standard Deviation	Mean	Standard Deviation
Field Independence	11.62	4.54	10.64 ^a	4.39
Locus of Control	8.50	3.87	9.68 ^a	4.12
Empathy	38.90	5.99	40.32 ^a	5.90
Religiosity	15.78	9.10	16.60 ^a	7.99
Anxiety	36.56	6.80	36.74 ^a	8.26
Total Guilt	-7.38 ^b	48.69	-57.06	37.20
Sex Guilt	-16.22 ^c	20.02	-40.96	23.51
Hostility Guilt	5.08 ^d	18.84	-4.23	13.85
Morality-Conscience	3.76 ^e	17.76	-11.87	10.23
Age	22.54	4.88	22.72 ^a	6.51

^aNote: The difference between the male and female means was not significant.

^bActual range for males -84 to +98; for females -104 to +77

^c" " " " -43 to +37; " " -59 to +56

^d" " " " -32 to +39; " " -27 to +25

^e" " " " -29 to +32; " " -24 to +12

Table 2

Correlation Matrix for All Personality Variables for Both Sexes^a

Variable	1	2	3	4	5	6	7	8	9	10
1. Field Ind		-.04 ^b	.23 ^c	-.31	-.04	-.22	-.32	-.11	-.13	-.10
2. Locus	-.04 ^d		-.14	-.27	.17	-.38	-.29	-.37	-.32	-.50
3. Empathy	.14	-.24		.04	-.34	-.24	-.30	-.20	-.11	.13
4. Religiosity	-.40	-.09	-.32		-.10	.65	.61	.39	.69	.09
5. Anxiety	-.09	.22	-.20	.08		-.11	-.15	-.15	.01	-.22
6. Total Guilt	.13	.22	-.29	.28	.25		.91 ^e	.82 ^e	.84 ^e	.14
7. Sex Guilt	.01	.17	-.37	.39	.24	.89 ^e		.64	.70	.14
8. Hostility	.24	.04	.02	-.07	.02	.60 ^e	.24		.48	.23
9. Morality-Con	.14	.35	-.22	.23	.33	.77 ^e	.62	.28		-.01
10. Age	-.08	.02	-.22	.20	-.03	.08	.19	-.23	.16	

^aMales ($N = 50$) in upper right, females ($N = 47$) in lower left.

^bAll decimals have been omitted.

^cFor males $p < .01$, one-tailed test requires $r = .34$; two-tailed, $r = .36$;
 " " .05, " " " " " " .24; " " " " " " .28;

^dFor females $p < .01$, one-tailed test requires $r = .34$; two-tailed, $r = .37$;
 " " .05, " " " " " " .24; " " " " " " .29.

^eThese are spuriously high, part-to-whole correlations.



Table 3

Summary of Significant Correlations Pertaining to Hypotheses

	Anxiety	Guilt			
		Total	Sex	Hostility	Morality-Con.
Field Independence					
Male			-.32*		
Female				.24*	
Locus of Control					
Male		-.38**	-.29*	-.37**	-.32*
Female					.35*
Empathy					
Male	-.34**		-.30*		
Female		-.29*	-.37**		
Religiosity					
Male		.65***	.61***	.39**	.69***
Female		.28*	.39**		

*p < .05
 **p < .01
 ***p < .001

hypothesized, anxiety was negatively related to empathy ($r = -.34$, $p < .01$), and independent of field independence and religiosity. The hypothesized negative relationship between anxiety and internal locus of control was not supported; no relationship was found between them on Rotter's scale or on Mirels' Factor I. The multiple-regression analysis is summarized in Table 4. Empathy (11%), understandably, was the best predictor, followed by age (3%). Together they yielded a multiple R of .38, which explained approximately 15% of the variance. The other variables contributed negligibly.

For female subjects the results were slightly different. The hypothesized relationships between anxiety and guilt were supported. Anxiety was related in a low positive way to sex guilt ($r = .24$, $p < .05$) and to morality-conscience guilt ($r = .33$, $p < .05$), but was independent of total guilt and hostility guilt. The hypothesized absence of a relationship between anxiety and field independence and between anxiety and religiosity was confirmed. However, the hypothesized negative relationships with empathy and internal locus of control were not supported; no relationships were found. In the case of female anxiety, the overall multiple-regression analysis was not significant.

Total Guilt

Total guilt, as hypothesized, among male subjects was negatively related to locus of control on Rotter's scale ($r = -.38$, $p < .01$) and positively related to religiosity ($r = .65$, $p < .001$). Thus, male subjects higher on total guilt were more internal and more religious. Hypothesized positive relationships with field independence and empathy were not supported. The regression analysis, summarized in Table 5, indicated that

Table 4
Multiple-Regression Summary for Male Anxiety

Variable	<u>R</u>	<u>R</u> ²	<u>R</u> ² change	Simple <u>r</u>
Empathy	.34	.11	.11	-.34
Age	.38	.15 ^a	.03	-.22
Religiosity	.39	.15	.00	-.09
Locus of Control	.39	.15	.00	.16

^aR² varies slightly from the figures in the "R² change" column due to rounding errors.

Table 5
Multiple-Regression Summary for Total Guilt

	<u>R</u>	<u>R</u> ²	<u>R</u> ² change	Simple <u>r</u>
Male				
Religiosity	.65	.42	.42	.65
Empathy	.71	.50 ^a	.07	-.24
Locus of Control	.75	.56	.06	-.38
Field Independence	.75	.56	.00	-.22
Female				
Empathy	.29	.08	.08	-.29
Religiosity	.35	.12	.04	.28
Field Independence	.44	.20 ^a	.07	.13
Locus of Control	.49	.24	.05	.22

^aR² varies slightly from the figures in the "R² change" column due to rounding errors.

religiosity (42%) was the best predictor, followed by empathy (7%), and locus of control (6%). The multiple R was .75, accounting for 56% of the variance.

Among female subjects total guilt was positively related to religiosity ($r = .28$, $p < .05$), as hypothesized, but negatively related to empathy ($r = -.29$, $p < .05$, two-tailed test), contrary to the hypothesis. The hypothesized positive relationship with field independence was not supported. Total guilt was not related to locus of control. The regression analysis, summarized in Table 5, indicated that empathy (8%) was the best predictor, followed by religiosity (4%), field independence (7%), and locus of control (5%). The multiple R was .49, explaining 24% of the variance.

Sex Guilt

Sex guilt, as hypothesized, among male subjects was negatively related to locus of control on Rotter's scale ($r = -.29$, $p < .05$) and positively related to religiosity ($r = .61$, $p < .001$). Contrary to the hypothesis, it was negatively related to field independence ($r = -.32$, $p < .05$, two-tailed test) and to empathy ($r = -.30$, $p < .05$, two-tailed test). Thus, male subjects higher on sex guilt were more field independent, more internal, less empathic, and more religious. In the regression analysis, summarized in Table 6, religiosity (37%) was the best predictor, followed by empathy (11%) and locus of control (3%). Together these yielded a multiple R of .71, accounting for 51% of the variance.

Among female subjects sex guilt was positively related to religiosity ($r = .39$, $p < .01$) as hypothesized, and negatively related to empathy ($r = -.37$, $p < .01$, two-tailed test) contrary to the hypothesis.

Table 6
Multiple-Regression Summary for Sex Guilt

	<u>R</u>	<u>R</u> ²	<u>R</u> ² change	Simple <u>r</u>
Male				
Religiosity	.61	.37	.37	.61
Empathy	.69	.48	.11	-.30
Locus of Control	.71	.51	.03	-.29
Field Independence	.72	.52	.01	-.32
Age	.72	.52	.00	.14
Female				
Religiosity	.39	.15	.15	.39
Empathy	.47	.22	.07	-.37
Field Independence	.50	.25	.03	.01
Locus of Control	.53	.28	.03	.17
Age	.53	.28	.00	.19

The hypothesized positive relationship with field independence was not supported. No specific hypotheses were tested regarding locus of control and no significant relationships were found. In the regression analysis, summarized in Table 6, religiosity (15%), empathy (7%), and field independence (3%) yielded a multiple R of .50, explaining 25% of the variance.

Hostility Guilt

Hostility guilt among male subjects, as hypothesized, was negatively related to locus of control on Rotter's scale ($r = -.37$, $p < .01$) and positively related to religiosity ($r = .39$, $p < .01$). Thus, male subjects higher on hostility guilt were more internal and more religious. The hypothesized positive relationships with field independence and empathy were not supported. In the regression analysis, summarized in Table 7, religiosity (15%), locus of control (8%), and empathy (7%) yielded a multiple R of .54, explaining 29% of the total variance.

Among female subjects hostility guilt was positively related to field independence ($r = .24$, $p < .05$). This was the only instance in the study in which the hypothesized relationship between guilt and field independence was confirmed. The hypothesized positive relationships with empathy and religiosity were not supported. Again, there was no hypothesis regarding locus of control and no relationship was found. In the regression analysis the other variables contributed only negligibly.

Morality-Conscience Guilt

Morality-conscience guilt among male subjects, as hypothesized,

Table 7
Multiple-Regression Summary for Male Hostility Guilt

Variable	<u>R</u>	<u>R</u> ²	<u>R</u> ² change	Simple <u>r</u>
Religiosity	.39	.15	.15	.39
Locus of Control	.48	.23	.08	-.37
Empathy	.54	.29 ^a	.07	-.20
Age	.55	.30	.01	.22
Field Independence	.55	.30	.00	-.11

^aR² varies slightly from the figures in the "R² change" column due to rounding errors.

was negatively related to locus of control on Rotter's scale ($r = -.32$, $p < .05$) and positively related to religiosity ($r = .69$, $p < .001$); thus, male subjects higher on guilt were, as in previous cases, more internal and more religious. In the regression analysis, summarized in Table 8, religiosity explained 48% of the variance with the other variables contributing only negligibly.

Among female subjects the hypothesized positive relationship with field independence was not supported. Other possible relationships were explored; only the tendency for high-guilt subjects to be more external reached significance (on Rotter's scale $r = .35$ and on Mirels' Factor I $r = .30$; for each $p < .05$, two-tailed tests). The regression analysis, summarized in Table 8, indicated that external control (12%), religiosity (7%), and field independence (8%) yielded a multiple R of .53, which explained 28% of the variance.

Interaction Effects

Possible interaction effects between field independence and locus of control, and between field independence and empathy, were tested by two-way analysis of variance with three levels of each independent variable, and with anxiety and the four guilt measures as dependent variables. This was done for both sexes. As in previous research field independence and locus of control were not related for either sex. Nor were field independence and empathy significantly related, although there was a tendency for field-independent males to be more empathic. Twenty separate analyses yielded only one significant interaction, namely, that between field independence and locus of control on Rotter's scale on morality-conscience guilt among female subjects, $F(4, 38) = 3.46$, $p < .02$.

Table 8

Multiple-Regression Summary for Morality-Conscience Guilt

	<u>R</u>	<u>R</u> ²	<u>R</u> ² change	Simple <u>r</u>
Male				
Religiosity	.69	.48	.48	.69
Empathy	.70	.50	.02	-.11
Locus of Control	.72	.52	.02	-.32
Age	.73	.54	.02	.00
Field Independence	.74	.55	.01	-.13
Female				
Locus of Control	.35	.12	.12	.35
Religiosity	.44	.19	.07	.24
Field Independence	.53	.28 ^a	.08	.14
Age	.54	.29 ^a	.01	.16
Empathy	.54	.29 ^a	.00	-.22

^aR² varies slightly from the figures in the "R² change" column due to rounding errors.

The means and standard deviations are shown in Table 9, with the results of the analysis of variance in Table 10. Field-independent internals were hypothesized to be higher on guilt and lower on anxiety; however, these hypotheses were not confirmed. The field-independent external female group was higher on guilt than the other types. Ten additional analyses of variance with two levels of Mirels' Factor I yielded no significant interactions.

Table 9
 Means and Standard Deviations for Field Independence by
 Locus of Control Analysis of Variance on Female
 Morality-Conscience Guilt

	<u>N</u>	Mean	Standard Deviation
Field-Ind: High			
Locus of Control			
Internals	6	-11.67	11.81
Mid	5	-16.80	3.27
Externals	4	7.75	4.03
Field-Ind: Medium			
Locus of Control			
Internals	3	-20.00	4.00
Mid	6	-14.33	8.69
Externals	7	-15.57	10.98
Field-Ind: Low			
Locus of Control			
Internals	5	-15.60	4.72
Mid	6	-10.33	10.33
Externals	5	-8.00	5.38

Table 10
Field Independence by Locus of Control Analysis of Variance on
Female Morality-Conscience Guilt

Source of Variation	<u>df</u>	Mean square	<u>F</u>	<u>p</u>
Field Independence	2	340.19	4.85	.01
Locus of Control	2	354.68	5.07	.01
Interaction	4	242.13	3.46	.02
Residual	38	70.01		

CHAPTER V

DISCUSSION

Anxiety proneness and guilt proneness, as hypothesized, were adequately differentiated from each other. Among male subjects the four guilt measures were independent of anxiety. Among female subjects there was a slight positive relationship between anxiety and sex guilt, as hypothesized, and between anxiety and morality-conscience guilt. The absence of a significant correlation among male subjects and the low correlation among female subjects supported the interpretation that guilt and anxiety are best regarded as separate constructs among normal subjects of either sex.

The present results provided clearer evidence than previous research that anxiety and guilt are not related among male subjects. Secondly, since guilt is independent of, or only minimally related to, anxiety, there is no support for the opinion that guilt is necessarily somewhat pathological. There may be some elements of fear in a guilt response, but that is not to say that guilt is best understood in terms of a more basic fearfulness within those individuals who are relatively more guilt prone. At the very least, people appear to be more selective and more specific about their fears. Research into the object of such fears (e.g., authorities, God, traditional rules of institutions, loss of self-esteem) could be valuable. More to the point, the results provided no argument against considering guilt as a possibly constructive

aspect of personality development.

Field Independence

The further attempt to relate guilt and anxiety to theoretically meaningful variables was only partially successful. First of all, it was hypothesized that field independence was positively related to guilt but independent of, or negatively related to, anxiety. The latter part of the hypothesis was confirmed by the absence of a relationship between field independence and anxiety for both sexes. The relationship between field independence and guilt was more complicated, varying with sex and the specific kind of guilt. For example, field-independent female subjects were higher on hostility guilt whereas field-independent male subjects were lower on sex guilt. The first example confirmed the initial part of the hypothesis while the second example was in the opposite direction. In fact, the first example represented the only case in which the hypothesis was confirmed.

Overall, field independence was independent of anxiety and six of the eight guilt measures. It, therefore, provided little in the way of a theoretical and developmental framework for understanding guilt and anxiety among normal subjects. There was no support for Witkin et al's. (1962) earlier suggestion that field-dependent individuals are more prone to anxiety. The present results, along with previous research (Dargel & Kirk, 1973; Joshi, 1974), provided solid evidence that differentiation and anxiety proneness are not related. Second, the results suggest that field-independent female subjects, who are conceptualized as having a more developed sense of identity and a greater tendency to label feelings precisely, used more constructive and socially acceptable ways of dealing

with their frustration, anger, and hostility. This type of theorizing, however, is of limited value since it is not clear why such reasons do not apply to other kinds of guilt. Third, the results may provide some insight regarding sex guilt. Under the "new morality" sexual ethics have undergone much examination and change. Inasmuch as Mosher's scale reflects socioconventional moral understanding, it is possible that field-independent males adopt a less conventional moral position. The question for further research is whether they still have certain norms and would feel guilty for violating them, although their norms in a time of ethical transition would be less likely to reflect the older norms of the wider society.

Perhaps the conventional and uncomplicated nature of Mosher's scale minimizes the relevance of any distinction based on field independence and/or relatively greater complexity within the psychological system. In other words, field-dependent subjects are so tuned in to their social environment, its norms and expectations, that they have absorbed conventional morality, experience real guilt in that regard, and, therefore, do not differ from field-independent subjects. This would also explain why field-dependent subjects in the Witkin et al. (1968) study experienced some guilt while still being more prone to shame (as opposed to field-independent subjects who experienced more guilt than shame). Whether field-independent subjects would be more reflective, more principled, more internalized, and, therefore, more guilt prone than field-dependent subjects on moral issues that are not part of the package of conventional moral wisdom is a question for future research.

The minimal influence of field independence may reflect a

methodological problem. Some authors pointed out that a more rigorous testing of differentiation theory involves the use of two acceptable measures, in which case the shared variance is then correlated with another variable. The present results are limited, of course, by the use of a single measure, the Group Embedded Figures Test.

Locus of Control

The second theoretical variable, thought to explain some of the variance in anxiety and guilt, was locus of control. Male internals were hypothesized to be higher on guilt; this was confirmed for all the guilt measures. Internals of both sexes were hypothesized to be lower on anxiety than externals; this was not confirmed but the trend was in the predicted direction. Although there were no hypotheses for female subjects on guilt, externals were found to be higher than internals on morality-conscience guilt. The different pattern of correlations and the contrast between male and female subjects on morality-conscience guilt, i.e., moderate relationships in opposite directions, show the importance of the sex variable and specific kinds of guilt. Also, locus of control provided some theoretical background for differentiating anxiety and guilt, at least for male subjects.

The research reviewed earlier indicated that internals made a stronger attribution of responsibility, engaged in more self-criticism, were higher on resistance and remorse, and emphasized internal sanctions. Second, other research indicated that high-guilt subjects responded to personal cues rather than to surveillance or punishment. In line with this description, the present results supported the interpretation that male internals manifest a personal, internalized sense of conventional moral

responsibility. Furthermore, the present study indicates that this is well-founded not only for global measures of guilt, as employed by Johnson et al. (1968) and Adams-Webber (1969), but for specific kinds of guilt as well. The sex differences found by Johnson et al. were also confirmed here. It seems likely that the absence of sex differences in Adams-Webber's study may be due to the restricted measure employed, namely two projective stories. A general impression from the present study is that guilt is too complicated to be studied with such a limited measure. The failure to control for sex may explain why Schwartz (1973) found externals higher on total guilt with a sample that included male and female subjects. These results may be attributable to the female externals who in the present study were higher on morality-conscience guilt, with a similar but not significant trend on total guilt and sex guilt. At the same time, the theoretical implications of female subjects' scoring higher on guilt remain unclear.

In summary, the concept of internal locus of control provides some explanation for male guilt. Second, because the results were not similar for both sexes, different theoretical variables may be required to explain male and female guilt. Third, because the results were not similar for the specific kinds of guilt, different theoretical constructs may also be required to explain different kinds of guilt.

The results noted above were based on Rotter's locus of control measure. In a further attempt to clarify the influence of locus of control and to overcome any masking of effects due to the multifactor structure of Rotter's scale, the influence of Mirels' first factor, which refers to a feeling of mastery over the course of one's life, was also

noted. For female subjects the pattern of relationships was the same on both measures. For male subjects the pattern of correlations was different, with male internals being higher only on hostility guilt and not, as before, on all the guilt measures. Hence, with Mirels' measure the influence of locus of control is minimal.

Various combinations of field independence and locus of control were analyzed, on the assumption that certain typologies are more congruent, that is, more psychologically consistent than others. Field-independent internals were hypothesized to be higher on guilt and lower on anxiety than the other types. Neither hypothesis was supported. The only significant interaction on the 3 x 3 analysis of variance indicated that field-independent external (i.e., an incongruent type) female subjects were higher on morality-conscience guilt. No interaction was significant with Mirels' scale. No theoretical explanation for this single significant result is apparent. Inasmuch as 30 interactions were analyzed, it may have been due to chance. Perhaps all that can be noted is that the recent, embryonic theorizing about consistent and inconsistent typologies has not led, thus far, to meaningful results about guilt and anxiety.

Empathy

A third theoretical variable, empathy, was considered. Empathy was hypothesized to be negatively related to anxiety. This was confirmed for male subjects and the results were in the predicted direction but were not significant for female subjects. Second, it was predicted that empathy was positively related to total guilt and to hostility guilt. This was not confirmed. Actually, empathy was found to be negatively related to sex guilt for males, and negatively related to total guilt and

sex guilt for females.

Empathy, then, contributed very little to the predicted theoretical structure explaining the difference between anxiety and guilt. The results about anxiety are similar to Hogan's (1969) research, using the Manifest Anxiety Scale, and support the general impression that empathy and adjustment are positively related. The results about guilt are surprising, even though restricted, for the most part, to sex guilt since it is the correlation with sex guilt that substantially contributes to the significant correlation with total guilt. In retrospect, the socioconventional character of Mosher's scale may provide some clarification. Such a conventional scale implies the kind of rigid rules and controls characteristic of Kohlberg's stages of conventional moral reasoning. At the same time, there is a positive relationship between empathy and moral reasoning (Hogan & Dickstein, 1972). One can speculate, therefore, that more empathic individuals, i.e., those more sensitive to the effects of their behavior on others, sense an inadequacy in a morality of rules about sexual behavior and have moved beyond this moral position. (Whether they tend to adopt a morality that says "it's all right providing nobody is being hurt" is another question.) The tendency of subjects high on sex guilt to judge moral dilemmas in terms of rigid codes and laws provides some support for this interpretation (D'Augelli & Cross, 1975). This interpretation is limited, however, in its failure to explain the absence of a relationship between empathy and hostility guilt.

Religiosity

Religiosity, as hypothesized, was not related to anxiety for either sex. Also, as hypothesized, it was positively related to total

guilt and sex guilt for both sexes, and to hostility guilt for male subjects. However, the hypothesized positive relationship with hostility guilt among female subjects was not confirmed.

The absence of a relationship with anxiety supports the theory that "religion"--when defined operationally in terms of interest, activity and experience, rather than mere affiliation--is not related to personality deficiencies. At the same time, religiosity was strongly related to guilt, especially among male subjects. There seem to be two explanations for this phenomenon, possibly complementing each other. First, the guilt subscales for male subjects are highly intercorrelated, e.g., .64, .70, and .48 (whereas the corresponding figures for the female subscales are much lower, i.e., .24, .62, and .28); and this occurs despite the lack of evidence in the literature for the existence of a generalized conscience. Hence, the similarity of the relationships, especially among the male subjects, may reflect, in part, a methodological bias. Second, an element of social conventionality characterizes the more religious person on the Rohrbaugh and Jessor (1975) scale, as well as the more guilty person on the Mosher scale. This underlying element of social conventionality may help to explain the strong relationship between guilt and religiosity in the present study.

A further difficulty in the present data, namely, the absence of a relationship between religiosity and female hostility guilt, may be attributable to cultural factors. In some respects society tolerates a greater show of aggression/hostility from men. Since more religious male subjects seem less prone to hostile behavior, it is possible that religious beliefs and experience may reduce male hostility. On the other hand, women,

in general, may have overlearned a cultural expectation that inhibits the expression of hostility. For them, religious experience or guidelines may not add to the effect of the cultural norm.

In summary, the present study may confirm the popular observation that religion tends to support conventional morality (although it says nothing about the possible relationship between religion and less conventional morality). In addition, it confirms Rohrbaugh and Jessor's (1975) results which indicated that the more religious person was more conventional, less prone to deviant behavior, not inclined to either locus of control orientation (although the tendency towards internal control almost reached significance for more religious males), and not maladapted. The very important question regarding the extent to which religiosity determines or influences resistance to temptation and/or guilt feelings cannot be answered on the basis of the correlational data in this study. Finally, the strong relationship with guilt suggests the feasibility of including a similar measure of religiosity in research on morality. For example, Hogan's (1973) attempt to explain moral behavior on the basis of personality variables, such as autonomy, socialization, and empathy, may be too narrow. The inclusion of a religious interest variable--as distinct from mere membership in a particular religious group--may increase the accuracy of predictions based on such a theory.

The multiple-regression analysis was intended to clarify the relative contribution of the preceding predictor variables while integrating the concept of guilt proneness into a wider theoretical network. As indicated in this discussion, a number of the hypothesized correlations were not confirmed, particularly those regarding field

independence and empathy. Hence, their inclusion in the regression analysis did not provide the anticipated clarification. The multiple correlations were more valuable regarding guilt than anxiety. When they were large enough to be of theoretical value, religiosity was by far the most substantial predictor for male subjects, while internal control and low empathy were of lesser value. Lastly, each female guilt variable was best explained by a different predictor. This indicates that either the choice of predictors was poor, or that there is a high degree of specificity in the theoretical understanding of different kinds of guilt. The latter suggestion complements Allinsmith's (1960) suggestion that internalizations in different moral areas do not necessarily have the same developmental origins.

Limitations

There are several obvious limitations to the present study: First, it was based upon self-reported, conscious attitudes in an admittedly sensitive area. Second, it has been suggested that college students, the subjects in this study, may sometimes adopt a position of moral relativism in order to free themselves from the guilt induced during their adolescence by family and by society (Kohlberg & Kramer, 1969). Third, approximately 50% of the subjects were Roman Catholic and many of them had a large amount of parochial education. Finally, any comparisons between the sexes were restricted by the use of different guilt measures for each sex. Be-

cause of these limitations further corroboration is needed with data less subject to distortion (though still about specific kinds of guilt) and with more representative older subjects who may be more settled in their moral reasoning.

Conclusions

This study proposed that guilt and anxiety could be adequately differentiated from each other and in relation to field independence, locus of control, empathy, and religiosity.

1. Anxiety was adequately distinguished from total guilt and from the specific kinds of guilt for both sexes.
2. Field independence was not related to anxiety for either sex, nor to guilt, with two exceptions: There was a negative relationship with male sex guilt and a positive one with female morality-conscience guilt. Field independence, as measured by the Group Embedded Figures Test, was of little value in clarifying the concepts of anxiety and guilt.
3. Locus of control was not related to anxiety for either sex. Male internals were higher on all guilt variables; female externals were higher on morality-conscience guilt. Locus of control, interpreted here as internalization of responsibility, was of particular value in understanding male guilt.
4. The notion of congruent versus incongruent field independence/locus of control types yielded no meaningful results.
5. Empathy was negatively related to anxiety for males but not for females; and negatively related to sex guilt for both sexes. This may indicate that more empathic individuals tend to move beyond rigid, conventional rules governing sexual behavior.

6. Religiosity was independent of anxiety for both sexes, but strongly related to guilt, especially for males. Overall, it was the strongest predictor of guilt, perhaps due to the socioconventional quality of the Mosher scales.
7. Sex differences were readily apparent. The personality correlates of guilt differed, at least when the guilt criterion differed for each sex.
8. The personality correlates of specific kinds of guilt showed considerable variety. Extensive research is needed to unravel this complex phenomenon.

The generalizability of these conclusions is limited by the use of a single measure of differentiation, by the conscious, self-report nature of the guilt data, by the construct of guilt proneness (which is distinct from actual resistance or actual remorse), and by the sample of primarily Roman Catholic college students.

SUMMARY

This study proposed that guilt proneness and anxiety proneness are best considered as separate constructs, and that they differ in their relationships with field independence, locus of control, empathy, and religiosity. Furthermore, it attempted to integrate the construct of guilt proneness into a wider theoretical network for each sex.

Guilt proneness was conceptualized, with Mosher, as a disposition within specific content areas to resist temptation or, after transgression, to engage in self-criticism, remorse, confession or expiation; it was operationally defined by the Mosher Forced-Choice Guilt Scale (Mosher, 1966, 1968) which includes separate forms for men and women, and provides a score for total guilt, as well as sex guilt, hostility guilt and morality-conscience guilt.

The following measures were included: for anxiety proneness, the trait scale of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1971); for field independence, the Group Embedded Figures Test (Oltman, Raskin, & Witkin, 1971); for locus of control, the Rotter Internal-External Scale; the Hogan Empathy Scale (Hogan, 1969); and the Measure of Religiosity (Rohrbaugh & Jessor, 1975).

The subjects were 50 male and 47 female students--mostly undergraduates--attending summer courses at a large, private midwestern university. Hypotheses were tested either by Pearson correlations or by analysis of variance.

The results and conclusions were, as follows:

1. All guilt variables for both sexes were adequately differentiated from anxiety.
2. Field independence was not related to anxiety for either sex, nor to guilt, with two exceptions: There was a negative relationship with male sex guilt and a positive one with female morality-conscience guilt. Field independence proved to be of little value in clarifying anxiety and guilt.
3. Locus of control was not related to anxiety for either sex. Male internals were significantly higher than externals on all guilt variables; female externals were higher than internals on morality-conscience guilt. Locus of control, interpreted here as internalization of responsibility, was of particular value in understanding male guilt.
4. The notion of congruent versus incongruent field independence/locus of control types yielded no meaningful results.
5. Empathy was negatively related to anxiety for males but not for females, and negatively related to sex guilt for both sexes. This may indicate that more empathic individuals tend to move beyond rigid, conventional rules governing sexual behavior.
6. Religiosity was independent of anxiety for both sexes, but strongly related to guilt, especially for males. Overall, it was the strongest predictor of guilt, perhaps due to the socio-conventional quality of the Mosher scales.
7. Sex differences were readily apparent. The personality correlates of guilt differed between the sexes, at least when the guilt criterion differed for each sex.

8. The personality correlates of specific kinds of guilt showed considerable variety. Extensive research is needed to unravel this complex phenomenon.

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APPENDIX

Mosher Forced-Choice Guilt Inventory (for Men)

This questionnaire consists of a number of pairs of statements or opinions which have been given by college men in response to the "Mosher Incomplete Sentences Test": These men were asked to complete phrases such as "When I tell a lie . . ." and "To kill in war . . ." to make a sentence which expressed their real feelings about the stem. This questionnaire consists of the stems to which they responded and a pair of their responses which are lettered A and B.

You are to read the stem and the pair of completions and decide which you most agree with or which is most characteristic of you. Your choice, in each instance, should be in terms of what you believe, how you feel, or how you would react, and not in terms of how you think you should believe, feel, or respond. This is not a test. There are no right or wrong answers. Your choices should be a description of your own personal beliefs, feelings, or reactions.

In some instances you may discover that you believe both completions or neither completion to be characteristic of you. In such cases select the one you more strongly believe to be the case as far as you are concerned. Be sure to find an answer for every choice. Do not omit an item even though it is very difficult for you to decide, just select the more characteristic member of the pair. Encircle the letter, A or B, which you most agree with.

1. When I tell a lie . . .
 - A. it hurts.
 - B. I make it a good one.
2. To kill in war . . .
 - A. is a job to be done.
 - B. is a shame but sometimes a necessity.
3. Women who curse . . .
 - A. are normal.
 - B. make me sick.
4. When anger builds inside me . . .
 - A. I usually explode.
 - B. I keep my mouth shut.
5. If I killed someone in self-defense, I . . .
 - A. would feel no anguish.
 - B. think it would trouble me the rest of my life.
6. I punish myself . . .
 - A. for the evil I do.
 - B. very seldom for other people do it for me.
7. If in the future I committed adultery . . .
 - A. I won't feel bad about it.
 - B. it would be sinful.
8. Obscene literature . . .
 - A. is a sinful and corrupt business.
 - B. is fascinating reading.
9. "Dirty" jokes in mixed company . . .
 - A. are common in our town.
 - B. should be avoided.
10. As a child, sex play . . .
 - A. never entered my mind.
 - B. is quite wide spread.
11. I detest myself for . . .
 - A. my sins and failures.
 - B. for not having more exciting sexual experiences.
12. Sex relations before marriage . . .
 - A. ruin many a happy couple.
 - B. are good in my opinion.
13. If in the future I committed adultery . . .
 - A. I wouldn't tell anyone.
 - B. I would probably feel bad about it.

14. When I have sexual desires . . .
 - A. I usually try to curb them.
 - B. I generally satisfy them.
15. If I killed someone in self-defense, I . . .
 - A. wouldn't enjoy it.
 - B. I'd be glad to be alive.
16. Unusual sex practices . . .
 - A. might be interesting.
 - B. don't interest me.
17. If I felt like murdering someone . . .
 - A. I would be ashamed of myself.
 - B. I would try to commit the perfect crime.
18. If I hated my parents . . .
 - A. I would hate myself.
 - B. I would rebel at their every wish.
19. After an outburst of anger . . .
 - A. I usually feel quite a bit better.
 - B. I am sorry and say so.
20. I punish myself . . .
 - A. never.
 - B. by feeling nervous and depressed.
21. Prostitution . . .
 - A. is a must.
 - B. breeds only evil.
22. If I killed someone in self-defense, I . . .
 - A. would still be troubled by my conscience.
 - B. would consider myself lucky.
23. When I tell a lie . . .
 - A. I'm angry with myself.
 - B. I mix it with truth and serve it like a Martini.
24. As a child, sex play . . .
 - A. is not good for mental and emotional well being.
 - B. is natural and innocent.
25. When someone swears at me . . .
 - A. I swear back.
 - B. it usually bothers me even if I don't show it.
26. When I was younger, fighting . . .
 - A. was always a thrill.
 - B. disgusted me.

27. As a child, sex play . . .
A. was a big taboo and I was deathly afraid of it.
B. was common without guilt feelings.
28. After an argument . . .
A. I feel mean.
B. I am sorry for my actions.
29. "Dirty" jokes in mixed company . . .
A. are not proper.
B. are exciting and amusing.
30. Unusual sex practices . . .
A. are awful and unthinkable.
B. are not so unusual to me.
31. When I have sex dreams . . .
A. I cannot remember them in the morning.
B. I wake up happy.
32. When I was younger, fighting . . .
A. never appealed to me.
B. was fun and frequent.
33. One should not . . .
A. knowingly sin.
B. try to follow absolutes.
34. To kill in war . . .
A. is good and meritable.
B. would be sickening to me.
35. I detest myself for . . .
A. nothing, I love life.
B. not being more nearly perfect.
36. "Dirty" jokes in mixed company . . .
A. are lots of fun.
B. are coarse to say the least.
37. Petting . . .
A. is something that should be controlled.
B. is a form of education.
38. After an argument . . .
A. I usually feel better.
B. I am disgusted that I allowed myself to become involved.
39. Obscene literature . . .
A. should be freely published.
B. helps people become sexual perverts.

40. I regret . . .
A. my sexual experiences.
B. nothing I've ever done.
41. A guilty conscience . . .
A. does not bother me too much.
B. is worse than a sickness to me.
42. If I felt like murdering someone . . .
A. it would be for good reason.
B. I'd think I was crazy.
43. Arguments leave me feeling . . .
A. that it was a waste of time.
B. smarter.
44. After a childhood fight, I felt . . .
A. miserable and made up afterwards.
B. like a hero.
45. When anger builds inside me . . .
A. I do my best to suppress it.
B. I have to blow off some steam.
46. Unusual sex practices . . .
A. are O.K. as long as they're heterosexual.
B. usually aren't pleasurable because you have preconceived feelings about their being wrong.
47. I regret . . .
A. getting caught, but nothing else.
B. all of my sins.
48. When I tell a lie . . .
A. my conscience bothers me.
B. I wonder whether I'll get away with it.
49. Sex relations before marriage . . .
A. are practiced too much to be wrong.
B. in my opinion, should not be practiced.
50. As a child, sex play . . .
A. is dangerous.
B. is not harmful but does create sexual pleasure.
51. When caught in the act . . .
A. I try to bluff my way out.
B. truth is the best policy.
52. As a child sex play . . .
A. was indulged in.
B. is immature and ridiculous.

53. When I tell a lie . . .
A. it is an exception or rather an odd occurrence.
B. I tell a lie.
54. If I hated my parents . . .
A. I would be wrong, foolish, and feel guilty.
B. they would know it that's for sure!
55. If I robbed a bank . . .
A. I would give up I suppose.
B. I probably would get away with it.
56. Arguments leave me feeling . . .
A. proud, they certainly are worthwhile.
B. depressed and disgusted.
57. When I have sexual desires . . .
A. they are quite strong.
B. I attempt to repress them.
58. Sin and failure . . .
A. are two situations we try to avoid.
B. do not depress me for long.
59. Sex relations before marriage . . .
A. help people to adjust.
B. should not be recommended.
60. When anger builds inside me . . .
A. I feel like killing somebody.
B. I get sick.
61. If I robbed a bank . . .
A. I would live like a king.
B. I should get caught.
62. Masturbation . . .
A. is a habit that should be controlled.
B. is very common.
63. After an argument . . .
A. I feel proud in victory and understanding in defeat.
B. I am sorry and see no reason to stay mad.
64. Sin and failure . . .
A. are the works of the Devil.
B. have not bothered me yet.
65. If I committed a homosexual act . . .
A. it would be my business.
B. it would show weakness in me.

66. When anger builds inside me . . .
A. I always express it.
B. I usually take it out on myself.
67. Prostitution . . .
A. is a sign of moral decay in society.
B. is acceptable and needed by some people.
68. Capital punishment . . .
A. should be abolished.
B. is a necessity.
69. Sex relations before marriage . . .
A. are O.K. if both partners are in agreement.
B. are dangerous.
70. I tried to make amends . . .
A. for all my misdeeds, but I can't forget them.
B. but not if I could help it.
71. After a childhood fight, I felt . . .
A. sorry.
B. mad and irritable.
72. I detest myself for . . .
A. nothing, and only rarely dislike myself.
B. thoughts I sometimes have.
73. Arguments leave me feeling . . .
A. satisfied usually.
B. exhausted.
74. Masturbation . . .
A. is all right.
B. should not be practiced.
75. After an argument . . .
A. I usually feel good if I won.
B. it is best to apologize to clear the air.
76. I hate . . .
A. sin.
B. moralists and "do gooders."
77. Sex . . .
A. is a beautiful gift of God not to be cheapened.
B. is good and enjoyable.
78. Capital punishment . . .
A. is not used often enough.
B. is legal murder, it is inhuman.

79. Prostitution . . .
- A. should be legalized.
 - B. cannot really afford enjoyment.

Scoring Instructions for Mosher Scale

(MC = Morality-Conscience, H = Hostility, and S = Sex)

1.	MC	A	+2	16.	S	A	-2	31.	S	A	+1
		B	-2			B	+1			B	-2
2.	H	A	-1	17.	H	A	+2	32.	H	A	+1
		B	+1			B	-2			B	-2
3.	MC	A	-1	18.	H	A	+2	33.	MC	A	+2
		B	+2			B	-2			B	-2
4.	H	A	-2	19.	H	A	-1	34.	H	A	-2
		B	+1			B	+2			B	+2
5.	H	A	-1	20.	MC	A	-2	35.	MC	A	-2
		B	+2			B	+2			B	+2
6.	MC	A	+2	21.	S	A	-2	36.	S	A	-2
		B	-2			B	+2			B	+1
7.	S	A	-2	22.	H	A	+2	37.	S	A	+1
		B	+2			B	-2			B	-1
8.	MC	A	+2	23.	MC	A	+2	38.	H	A	-1
		B	-2			B	-2			B	+2
9.	S	A	-1	24.	S	A	+2	39.	MC	A	-2
		B	+1			B	-2			B	+2
10.	S	A	+1	25.	H	A	-2	40.	MC	A	+2
		B	-1			B	+1			B	-2
11.	MC	A	+2	26.	H	A	-2	41.	MC	A	-1
		B	-2			B	+2			B	+2
12.	S	A	+2	27.	S	A	+2	42.	H	A	-1
		B	-2			B	-2			B	+2
13.	S	A	-1	28.	H	A	-2	43.	H	A	+1
		B	+1			B	+2			B	-1
14.	S	A	+1	29.	S	A	+1	44.	H	A	+2
		B	-2			B	-2			B	-2
15.	H	A	+1	30.	S	A	+2	45.	H	A	+2
		B	-2			B	-2			B	-1

46. S A -1
B +1

47. MC A -2
B +2

48. MC A +2
B -2

49. S A -1
B +1

50. S A +2
B -2

51. MC A -2
B +1

52. S A -1
B +1

53. MC A +1
B -1

54. H A +2
B -2

55. MC A +1
B -2

56. H A -2
B +2

57. S A -2
B +1

58. MC A +1
B -1

59. S A -2
B +1

60. H A -2
B +2

61. MC A -2
B +2

62. S A +1
B -1

63. H A -1
B +1

64. MC A +2
B -2

65. S A -1
B +1

66. H A -2
B +2

67. S A +2
B -2

68. H A +1
B -1

69. S A -2
B +2

70. MC A +2
B -2

71. H A +1
B -2

72. MC A -1
B +2

73. H A -1
B +1

74. S A -1
B +1

75. H A -1
B +2

76. H A +2
B -2

77. S A +1
B -2

78. H A -2
B +2

79. S A -1
B +1

Items of the Rotter I-E Scale Scored for Mirels' Factor I

5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
10. a. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
15. a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There is really no such thing as "luck."
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.

Note: The underlined alternative is scored in the external direction.

Hogan Empathy Scale

(Answers scored for empathy are noted in parentheses.)

1. A person needs to "show off" a little now and then. (T)
2. I liked "Alice in Wonderland" by Lewis Carroll. (T)
3. Clever, sarcastic people make me feel very uncomfortable. (F)
4. I usually take an active part in the entertainment at parties. (T)
5. I feel sure that there is only one true religion. (F)
6. I am afraid of deep water. (F)
7. I must admit I often try to get my own way regardless of what others may want. (F)
8. I have at one time or another in my life tried my hand at poetry writing. (T)
9. Most of the arguments or quarrels I get into are over matters of principle. (T)
10. I would like the job of foreign correspondent for a newspaper. (T)
11. People today have forgotten how to feel properly ashamed of themselves. (F)
12. I prefer a shower to a bathtub. (T)
13. I always try to consider the other fellow's feelings before I do something. (T)
14. I usually don't like to talk much unless I am with people I know very well. (F)
15. I can remember "playing sick" to get out of something. (T)
16. I like to keep people guessing what I'm going to do next. (F)
17. Before I do something I try to consider how my friends will react to it. (T)
18. I like to talk before groups of people. (T)
19. When a man is with a woman he is usually thinking about things related to her sex. (F)
20. Only a fool would try to change our American way of life. (F)

21. My parents were always very strict and stern with me. (F)
22. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to do. (T)
23. I think I would like to belong to a singing club. (T)
24. I think I am usually a leader in my group. (T)
25. I like to have a place for everything and everything in its place. (F)
26. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut non-ambiguous answer. (F)
27. It bothers me when something unexpected interrupts my daily routine. (F)
28. I have a natural talent for influencing people. (T)
29. I don't really care whether people like me or dislike me. (F)
30. The trouble with many people is that they don't take things seriously enough. (F)
31. It is hard for me just to sit still and relax. (F)
32. Once in a while I think of things too bad to talk about. (F)
33. I feel that it is certainly best to keep my mouth shut when I'm in trouble. (F)
34. I am a good mixer. (T)
35. I am an important person. (F)
36. I like poetry. (T)
37. My feelings are not easily hurt. (F)
38. I have met problems so full of possibilities that I have been unable to make up my mind about them. (T)
39. Often I can't understand why I have been so cross and grouchy. (F)
40. What others think of me does not bother me. (F)
41. I would like to be a journalist. (T)
42. I like to talk about sex. (T)
43. My way of doing things is apt to be misunderstood by others. (F)

44. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world." (T)
45. I like to be with a crowd who play jokes on one another. (T)
46. My mother or father often made me obey even when I thought that it was unreasonable. (F)
47. I easily become impatient with people. (F).
48. Sometimes I enjoy hurting persons I love. (T)
49. I tend to be interested in several different hobbies rather than to stick to one of them for a long time. (T)
50. I am not easily angered. (T)
51. People have often misunderstood my intentions when I was trying to put them right and be helpful. (F)
52. I am usually calm and not easily upset. (T)
53. I would certainly enjoy beating a crook at his own game. (T)
54. I am often so annoyed when someone tries to get ahead of me in a line of people that I speak to him about it. (F)
55. I used to like hopscotch. (F)
56. I have never been made especially nervous over trouble that any members of my family have gotten into. (F)
57. As a rule I have little difficulty in "putting myself into other people's shoes." (T)
58. I have seen some things so sad that I almost felt like crying. (T)
59. Disobedience to the government is never justified. (F)
60. It is the duty of a citizen to support his country, right or wrong. (F)
61. I am usually rather short-tempered with people who come around and bother me with foolish questions. (F)
62. I have a pretty clear idea of what I would try to impart to my students if I were a teacher. (T)
63. I enjoy the company of strong-willed people. (T)
64. I frequently undertake more than I can accomplish. (T)

Measure of Religiosity

1. How often have you attended religious services during the past year?
 - a) Never.
 - b) A few times.
 - c) About once a month.
 - d) A few times a month.
 - e) Weekly.

2. Which of the following best describes your practice of prayer or religious meditation?
 - a) Prayer is a regular part of my daily life.
 - b) I usually pray in times of stress or need but rarely at any other time.
 - c) I pray only during formal ceremonies.
 - d) Prayer has little importance in my life.
 - e) I never pray.

3. When you have a serious personal problem how often do you take religious advice or teaching into consideration?
 - a) Almost always.
 - b) Usually.
 - c) Sometimes.
 - d) Rarely.
 - e) Never.

4. How much of an influence would you say that religion has on the way that you choose to act and the way that you choose to spend your time each day?
 - a) No influence.
 - b) A small influence.
 - c) Some influence.
 - d) A fair amount of influence.
 - e) A large influence.

5. Which of the following statements comes closest to your belief about God?
 - a) I am sure that God really exists and that He is active in my life.
 - b) Although I sometimes question His existence, I do believe in God and believe He knows of me as a person.
 - c) I don't know if there is a personal God, but I do believe in a higher power of some kind.
 - d) I don't know if there is a personal God or a higher power of some kind, and I don't know if I will ever know.
 - e) I don't believe in a personal God or in a higher power.

6. Which of the following statements comes closest to your belief about life after death (immortality)?
 - a) I believe in a personal life after death, a soul existing as a specific individual.

- b) I believe in a soul existing after death as a part of a universal spirit.
 - c) I believe in a life after death of some kind, but I really don't know what it would be like.
 - d) I don't know whether there is any kind of life after death, and I don't know if I will ever know.
 - e) I don't believe in any kind of life after death.
7. During the past year, how often have you experienced a feeling of religious reverence or devotion?
- a) Almost daily.
 - b) Frequently.
 - c) Sometimes.
 - d) Rarely.
 - e) Never.
8. Do you agree with the following statement? "Religion gives me a great amount of comfort and security in life."
- a) Strongly disagree.
 - b) Disagree.
 - c) Uncertain.
 - d) Agree.
 - e) Strongly agree.

APPROVAL SHEET

The dissertation submitted by Gerald Joyce has been read and approved by the following Committee:

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

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

May 1, 1977
Date

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