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THE EFFECTS OF MORAL ORIENTATION AND EXTERNAL PRESSURE ON THE VIOLATION OF INTERNALIZED NORMS

by
Jeff Alan Epstein

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Psychology)
in The University of Michigan
1973

Doctoral Committee:

Professor Elton McNeil, Chairman
Associate Professor Eric Bermann
Professor Calvin Dyer
Professor Howard Wolowitz

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CHAPTER I

STATEMENT OF THE PROBLEM AND GENERAL BACKGROUND OF THE STUDY

The Problem

For a number of years the concept of internalization has held a paramount role in the area of moral development. In addition to receiving its birth and subsequent support from the psychoanalytic school, this type of concept has also been utilized in various sociological theories, including those of Durkheim. Internalization or a similar term has provided the explanatory power to account for the transformation of the relatively uncivilized child into the socially acceptable human being. It was through this process that the standards of society, its rules, regulations and values were inculcated in the child through the societal representative, the parent.

Recently, the need for such a concept has been examined by both sociological and psychological theorists. These individuals question the importance of the early introjected values as well as their enduring characteristic for directing the child's, and later the adult's moral outlook. On the contrary, these theorists support the concept of an ongoing, but externalized guide to moral orientation. That is,

instead of responding to an early internalized moral map, obtained from the parents, the individual is influenced by external factors to behave in a socially acceptable way. These influences, such as institutions, peers, authority figures, etc., provide a cueing function for the individual. These external cues then reduce or eliminate the necessity for the concept of internalization since the stimuli for behavior as well as the surveillance of that behavior originates from sources external to the individual, rather than from internal factors.

Consequently, these theories appear to represent polar positions in explaining moral behavior. It is the aim of this investigation to ascertain which of these theories will prove more effective in predicting and explaining the data of this research. That is, to examine the relative importance of internalized moral standards as opposed to external controls as the determinants of moral behavior.

Two Theories of the Role of Internalization in Moral Development

The concept of internalization has long held an important position in the research and theory of moral development. It is viewed as the degree to which an individual's orientation to behave in a socially prescribed manner is independent of external sanctions rather than based on the fear of detection, punishment, or surveillance from others. One of the most important contributions of Durkheim, as well

as Freud, is the assumption, which is now prevalent among social scientists, that the individual does not go through life viewing society's central norms as externally and coercively imposed pressures to which he must yield. Although, at first they are alien to him, according to this position, the individual does, at some point in his development, begin to accept these norms as his own. As these norms become internalized guides, the individual comes to behave in accord with them, even when external authority is not present to enforce them. That is, control by others is replaced by self control. Prominent examples of internalization concepts are the "collective conscience" attributed to Durkheim and Freud's "Super-ego."

Although Freud did not organize his theory on internalization into a coherent whole, its concepts are located in scattered references throughout the psychoanalytic literature and may be reconstructed in summary as follows. The young child is inevitably subjected to many frustrations, some of which are due to parental control and others which are relatively independent of the parent, for example, illness and other physical discomforts. All of these frustrations contribute to the development of hostility towards the parent. The child's anxiety about counter aggression from the parent or over the anticipated loss of the parents' love leads him to repress his hostility. To help keep the hostility repressed, as well as elicit increasing expressions of affection

from the parent, the child also attempts to model his behavior after that of the parent and take on the parents' prohibitions as his own. Additionally, he adopts the parents' capacity to punish himself when he violates a prohibition or is tempted to do so, turning inward, during this process, the hostility which was initially directed toward the parent. This self punishment is experienced as guilt feelings which are dreaded because of their intensity and their similarity to earlier anxieties about punishment and abandonment. Consequently, the child tries to avoid guilt by always acting in accordance with the incorporated parental prohibitions and erecting various defense mechanisms against the conscious awareness of impulses to act contrary to the prohibitions. Hence, control from without is replaced by self control. The process by which this transposition occurs is internalization, and the motive is the fear of love withdrawal.

Based on the above conceptualization, Hoffman provides a definition of an internalized moral act which will be utilized in the present research. He noted, "An internally based moral act is one which fits a moral standard, subjectively has its source in the actor himself or in some reference group or person, and is not based on concerns of external sanctions." Internalization then, implies the actor has the committment to the defense and maintenance of the norm even when external supports or pressures are not

present.

Recently, several social theorists have strongly criticized this concept of internalization (Reiss, 1966; Sanford, 1953; Wrong, 1961). Their position dictates that the individual's moral standards are highly vulnerable to internal and external pressures and that they must be continuously supported by a pattern of social reinforcement. They discard the position put forth by theorists supporting internalization that moral values are incorporated early and in essentially the same form remain intact to guide the individual throughout his life. Reiss takes an even more radical position. He contends that from society's standpoint it is not necessary for moral norms to be internalized. The amount of acceptable behavior needed by society is assured by the existence of various types of external surveillance and sanctions that are more numerous than internalization theorists would suggest. In the view of these writers, then, internalization is seen as a limiting concept for explaining the individual's behavior and as possibly having less importance for social organization than external factors.

Reiss draws support for his theory by analyzing social change phenomena. He argues that theories that exclusively rely on internal control of moral behavior cannot be adequately explained by rapid changes which may occur in society. He cites the fast changes in moral norms that

have occurred from one generation to the next, as well as the paucity of data showing any similarity between the values of parents and those of their children, as evidence counter to the idea that children internalize their parents' values. He concludes that the family is relatively unimportant in transmitting the values that govern the individual's behavior in adult life, and that the larger social system may counteract the parents at any later point and replace parentally taught values. According to Reiss, moral norms should be defined in terms of collective behavior rather than in what the individual internalizes, since internalization is not a requisite of moral behavior.

Reiss's arguments against the power of internalization are bolstered by reference to empirical research. Both laboratory and field studies show that people behave in ways that contradict their professed and presumably internalized standards (Saenger and Gilbert, 1950; Milgram, 1964). In particular, the Milgram study shows the possibility that people will obey outrageous requests which are given by respectable authority figures. Also of interest is a survey conducted by the Harvard Business Review of its subscribing executives (Baumhart, 1961). Four out of seven businessmen expressed agreement with the statement, "Businessmen would violate a code of ethics whenever they thought they could avoid detection."

As powerful as these arguments are, they do not necessarily destroy the importance of the internalization

concept. That many people appear to lack a viable system of internalized standards and that many others may have their's undermined by social pressures in later life, or by pressure from biological drives, does not negate the existence nor the importance of internalization, although it does suggest that internalization should not be thought of as the sole basis for social organization. Internalization may still have a bearing on the critical area of the degree of congruence that exists between society's norms and the individual's motives system. Societies vary both intra- and intersocietally, in the degree of such congruence for large numbers of their population. The degree of congruence, in turn, determines the extent to which external forms of social control are needed. At the individual level, there is a lack of data outside of the clinical area, that internal standards may motivate the individual's behavior throughout his lifetime. However, this does not rule out the possibility that standards may be internalized for shorter, but significant periods in the life span, and that they may give way to more rational bases for moral action later in life.

Bearing such a notion in mind, it is possible, and consistent with the bulk of child development literature, that the process by which children and adults acquire social norms may be fundamentally different. Because of the emotionally charged and dependent nature of their relations with parents, together with their accompanying lower level of

cognitive development, children's internalized standards may be adhered to rigidly and little influenced by reality factors. At a later age, as in parenthood, the individual may be more responsive to reality including larger social changes. Despite some discomfort, the individual may chose to alter his earlier child rearing practices with new experience. The content of what this individual teaches his own children, as well as the process, may differ considerably from what and how his own parents taught him. This is exemplified by Maccoby (1966) who describes a parent who, brought up in poverty, but now affluent, becomes uneasy when her child wastes food. But she responds to her own present affluence by not punishing the child, as she was when younger. Consequently, what the child internalizes, as a result, should be somewhat different from the parents own internalized standards. Therefore, the adult values may be filtered through his own cognitive and control systems, which are responsive to current reality, before finding overt expression in his behavior toward the child.

These above mentioned writers, by their critical stance toward the internalization concept, have performed the important function of demonstrating its limitations and placing it in a more proper perspective. Based on their arguments, earlier simplistic notions of internalization, that posited it as a learning process that ignored biological and social oppositional factors, must be revised. Nevertheless, the concept still maintains considerable value

from a societal as well as an individual point of view as an explanatory device.

Indicators of Moral Orientation

Most research efforts designed to differentiate an internal, as opposed to an external moral orientation, have relied upon a number of empirical indicators. Three indices of the degree of internalization that are represented in the moral development literature are (1) resistence to pressures to deviate, (2) guilt, and (3) internal vs. external moral orientation. The first two of these indices pertain to the drive or energy the individual commits to the defense and maintenance of the standards even in the absence of external supports or pressures to conform. This is reflected in (a) the amount of pressure and temptation to behave contrary to the norms that the individual can resist, and (b) the amount of guilt that he will experience when he fails to comply with the norm. The third pertains to the cognitive aspects of moral actions and refers directly to the extent which the individual is oriented to internal or external considerations.

From the standpoint of society, the most important index of conscience is the degree to which an individual can be counted on to resist pressures to deviate even when the possibilities for detection and punishment are remote. The pressures to deviate may be external (threats of punishment) or internal (desires for forbidden objects). As a result of

psychoanalytic influence, the studies dealing with resistance to temptation, which have been numerous, have focused upon impulse control in the face of inner temptations. Virtually, no research has devoted itself to study the resistance of external pressures, which may require an even more deep seated moral commitment. Two exceptions are noteworthy. One is the work of Milgram (1965). The second is a study by Fodor (1971) in which he studied the relationship between orientation and susceptibility to external influence to change that orientation. The present research bears directly on this vital, but generally unexplored area, the relation of moral orientation to the individual's capacity to resist external pressures to commit an act which must break a norm assumed to be internalized.

Resistance to temptation research is typically carried out under one of two formats. In the first (Allinsmith, 1960) story completion items were used in which the hero had not transgressed, but was tempted to do so. The subject's resistance to temptation score was determined by whether or not the hero in his story ending actually transgressed. Typically, a more behavioral index of resistance to temptation was employed. In those experiments, the subject is tempted to violate rules in order to win a prize (Burton, Maccoby and Allinsmith, 1961; Grinder, 1960; 1962; MacKinnon, 1938; Sears, Rau and Alpert, 1965). Although the subject is told no one knows if he is cheating or not, the information is usually available to the experimenter

through one or another devious means. The subject receives a score on the basis of whether or not he cheats, frequency of cheating, and how long it takes him to cheat. However, the measure is limited because it is based on a situation involving success and failure and therefore left open to the damaging influence of unequal motivation to do well on the task. Despite this limitation, this technique, both in the research literature reviewed and the present study, provides an invaluable tool. This is exemplified in Hoffman's description that, "Resistance to temptation, more than other measures used in the research taps what in a very general way approximates the theoretical ideal of a morality index."

A second measure of internalization found in the literature is guilt. In many ways it is the opposite of resistance to temptation. Experiencing guilt following a transgression is not a particular societal goal, especially in a society that is more preoccupied with overt behavior than intrapsychic processes. However, being an emotional response to a completed act, guilt is likely to be confounded with fewer non-moral variables than resistance to temptation. The typical paradigm for measuring guilt intensity involves a subject's responses to deviation story completion or a doll play situation. The technique presents the individual with a situation in which a figure he could easily identify with has committed a transgression under circumstances that minimize the possibilities of detection and

punishment. The subject is told to complete the story or situation, especially in relation to "what happens afterwards." The assumption with this method is that the subject identifies with the protagonist and therefore reveals his own internal reactions, though not necessarily his overt reactions in the completion of the activity. Since detection has been practically ruled out, any exaggerated fears of detection, as well as similar responses, are viewed as external rather than internal. Therefore, guilt in these situations is defined as external in orientation when it focuses upon punitive consequences of the transgression (Allinsmith, 1960; Allinsmith and Greening, 1955; Aronfreed, 1961; Hoffman and Saltzstein, 1967).

The final index used to assess internalization has been labeled internal vs. external orientation. This dimension in a relatively pure form, without regard to intensity of a moral commitment, has been used in two studies (Aronfreed, 1961; Hoffman and Saltzstein, 1967). Aronfreed tapped the implicit cognitive basis of moral evaluation with a projective story completion technique in which the central figure commits an act of aggression against another person. Story endings were coded with regard to the degree the subject took responsibility for his actions and attempted to make reparations for the events following the transgression or were dominated by external concerns. Hoffman and Saltzstein assessed the explicit cognitive basis of moral evaluation using a measure that was more consciously focused. It

was based in part on the modification of some of the items used by Kohlberg (1958). Individuals were asked to make moral judgments about several hypothetical situations in which transgressions occurred. These included judgments about persons committing various crimes, choosing which of two crimes was worse, judgments of crimes with extenuating circumstances, etc. In each, the subject's response was coded as internal, external, or indeterminant.

Despite the widespread use of Piaget's and especially Kohlberg's techniques, two rather important questions remain unanswered and are to be investigated in the present research. The first concerns the relation between one's judgment of other's morals and one's own moral behavior. Because a person has notions of right and wrong and uses them to evaluate the behavior of others does this mean he has the capacity to make similar evaluations of his own behavior or to control his behavior accordingly? Similarly the question arises concerning the relationship which has yet to be proved between the individual's moral judgment and his overt behavior. In the past, these were viewed as congruent, but more recent research has questioned if any relationship exists at all. In any event, this is an avenue that needs exploration and that will be undertaken in the present research.

Areas of Investigation

Despite a wealth of research in the moral development

area, certain issues have received little attention. This primarily results from the focusing of research and theoretical research on a selected number of topics. Additionally, new areas of investigation have been opened as a result of past and present research efforts. Nevertheless the research literature on moral development has, for the most part neglected four issues that will be investigated in this research. The first pertains to external pressures to deviate. Most of the research concerning itself with resistance to deviation has focused on internal pressures. There are many reasons why this has occurred. Foremost among these were the psychoanalytic influence guiding research on impulse control as well as ethical issues (to be described later) surrounding external pressures to deviate. Only the work of Milgram (1965) and Fodor (1971) have touched upon this critical area. However, Milgram's interest primarily involved obedience. Nevertheless, he provided a powerful tool through which an individual can be placed in a conflictual situation between external pressures to deviate and an assumed internal norm not to do so.

A second area that had not been pursued was the relation between an individual's moral judgment and his overt behavior. While both have been looked at separately, no formal research effort has been made to relate the two. The only exception to this was some research carried out by Kohlberg on a small sample of Milgram's (1964) subjects. Kohlberg's work was never formally presented but according

to Hoffman it showed that individuals who shocked little or not at all tended to have an internalized moral orientation. In the present research, the design will allow a test to be made by predicting the subject's performance on a behavioral task, based on his score on a moral judgment scale (Kohlberg). Much speculation has been made about the results of such a situation, however no data have yet been presented.

Another issue that has not received much attention has been the study of moral judgment and moral behavior in the adult. Most of the moral development research has involved only children. Consequently, most instruments for measuring moral judgment and techniques for exploring moral behavior have been chiefly and often solely applicable to children. The present research will focus on adult subjects, and will utilize the few, but effective instruments to investigate these issues.

A fourth avenue to be explored is the controversial issue posed by the theoretical formulations of Reiss and of Freud. The Freudians support the concept of an early internalization experience that is enduring. The Reissians on the other hand tie moral orientation to the external circumstances of the situation. The research design will be formulated in such a way so as to allow a test between these two theories.

Kohlberg's Theory and Technique

The method selected in this research to determine

moral orientation will involve a reliance on Kohlberg's Moral Dilemmas (see Appendix A). Several factors support the choice of this instrument. In the first place, it is the only measure of moral judgment that has received any widespread use with adults. Most of the measures of moral orientation have been used and standardized on children. Further, Kohlberg has developed an extensive coding system with a comprehensive manual. The scoring system consists of six developmental stages, each of which is defined in terms of its positions on 30 different moral attributes, to describe which strategies individuals employ in the resolutions of the Dilemmas. Each moral statement or idea expressed in the subject's story is assigned one of 180 cells in the classification system (30 attributes, each defined by a six point scale corresponding to the six stages). The score for a given stage is based on all of the subject's statements that fit that stage. Kohlberg reports interjudge reliability coefficients ranging from .68 to .84 and that there is a normal distribution of scores in the college population.

Basically, Kohlberg's theory (Kohlberg, 1958; 1968; 1969; 1972) represents a cognitive-developmental approach to moral development. Kohlberg views his theory as sharing certain aspects with Piaget's Schema, but as being more refined, comprehensive, and fitting into a more logically consistent framework. Kohlberg believes that his moral stages are structured wholes which form an invariant and

universal sequence in the direction of increasing maturity. Further, Kohlberg views movement from one stage to the next largely as a natural outgrowth of cognitive maturation. The function of experience is to provide the raw material upon which cognitive processes may operate.

Although the exact nature of these processes is not clear, the following provides the essence of Kohlberg's theory. Participation in all groups, whether with peer or authority figures, provides the individual with direct experience in taking alternate roles. This, in turn, gives the individual first hand knowledge about the intricacies of the actual socio-moral world including its role system and rules of social order, as well as an appreciation for its essential functional rationality. With such a perspective, the individual's view of the social world and its constraining aspects in relation to him and others change. Consequently, the individual is now more likely to take the role of authority and commonality between its conceptions of what is right, and his own. The particular authority to which he responds is determined by the child's comprehension of who is deemed by the social order to be the most relevant or legitimate authority with respect to himself at any given point in his development.

Though participation in all groups is seen by Kohlberg as having these effects, he recognizes that different levels of participation do exist. Thus some forms of social participation are viewed as especially stimulating to

moral development because they provide many stage appropriate opportunities for role taking and gaining understanding of the social order. Other forms which lack these opportunities or which arouse inhibiting anxieties, will retard progress through the moral stages and perhaps even fix the individual permanently at an early stage.

Kohlberg's view on the different effects of levels of participation is clearly ennunciated in his discussion of the relation between socioeconomic class and the individual's view of the law. Primarily, Kohlberg's position dictates that class differences as well as differences between other subgroups reflect differences in social participation patterns rather than value systems. Kohlberg believes that the institutions with moral authority (law, government, family) and the basic moral rules are the same regardless of the individual's particular position in society. Nevertheless, Kohlberg points out that the individual's position does influence his interpretation of these institutions and rules. Government and the law are perceived quite differently if the individual feels a sense of potential participation in the social order than if he does not. For instance, to the lower class people who feel little or no sense of participation, the law is simply a constraining obstacle that is present. The fact that the individual perceives himself as having no involvement in the law's operation means that he can only obey or disobey it. Lower middle-class individuals may also participate.

However, as a result of the opportunity it provides them, they are more apt to take the perspective of someone with a stake in the social order and to view laws not as arbitrary commands but as the moral basis of that order. Upper middle-class people, who feel a relatively strong sense of participation, are more likely to view laws as the product of various legitimate ideological and interest groups varying in their beliefs as to the best decision in policy matters. The rule of law-obeyer is seen from the perspective of the democratic policy-maker, and the view is that if one does not believe in a law he should try to get it changed rather than disobey it.

What follows is a brief description of Kohlberg's stages (Kohlberg, 1958; 1963) and the basis for the interpretation of the Moral Dilemmas. According to Kohlberg's cognitive-developmental theory, there are six major stages of moral reasoning or moral orientation (see Chart I). With increasing age and development, individuals pass sequentially and unidirectionally from one stage to the next. Individuals initiate the sequence at stage one, early in life, however few individuals attain the fifth or sixth stage. Typically, the reasoning of most adults can be classified as stage three or four, the conventional level. Each set of two stages, one and two, three and four, as well as five and six compose a level. There are three levels.

At the preconventional or first level, the individual responds to a moral decision as good or bad, right or

CHART I

CLASSIFICATION OF MORAL JUDGMENT INTO LEVELS AND STAGES OF DEVELOPMENT

Levels	Basis of Moral Judgment	Stages of Development
I	Moral value resides in external, quasi-physical happenings, in bad acts, or in quasi-physical needs rather than in persons and standards	Stage 1: Obedience and punishment orientation. Egocentric deference to superior power or prestige, or a trouble-avoiding set. Objective responsibility.
		Stage 2: Naively egoistic orientation. Right action is that instrumentally satisfying the self's needs and occasionally others'. Awareness of relativism of value to each actor's needs and perspective. Naive egalitarianism and orientation to exchange and reciprocity.
II	Moral value resides in performing good or right roles, in maintaining the conventional order and the expectancies of others.	Stage 3: Good-boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images of majority or natural role behavior, and judgment by intentions.
		Stage 4: Authority and social-order maintaining orientation. Orientation to "doing duty" and to showing respect for authority and maintaining the given social order for its own sake. Regard for earned expectations of others.

CHART I
(Continued)

Levels	Basis of Moral Judgment	Stages of Development
III	Moral value resides in conformity by the self to shared or shareable standards, rights, or duties.	Stage 5: Contractual legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Duty defined in terms of contract, general avoidance of violation of the will or rights of others, and majority will and welfare. Stage 6: Conscience or principle orientation. Orientation not only to actually ordained social rules but to principles of choice involving appeal to logical universality and consistency. Orientation to conscience as a directing agent and to mutual respect and trust.

Source: Adapted from Kohlberg, 1967, p. 171.

wrong, only in terms of pleasant or unpleasant consequences (punishment, reward, exchange of favors, or in terms of the physical power of those who might punish or reward him). The level is divided into two stages. In stage one, that of punishment and obedience, the physical consequences of action determine its goodness or badness. Avoidance of punishment and unquestioning respect for power are valued in their own right. In the second stage, that of personal usefulness, the right moral decision consists of one that satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place: one of exchanging favors or revenge. This is exemplified by the, "I'll scratch your back, you scratch my back" philosophy.

Involved in level two or the conventional level is the maintenance and support of the individual's family, group or nation which is viewed as valuable in its own right, regardless of one's own immediate and obvious needs. The attitude at this point is one of conformity and loyalty to the group and the maintenance of that group. Additionally, there is a concern for actively maintaining, supporting, and justifying orderliness and stability in the group. The individual's moral choices must conform to the expectations and rules of the group. It is the two stages within this level, according to Kohlberg, that closely parallel and exemplify what has been referred to in the moral development literature as an external frame of reference. This has

been referred to earlier as an external moral orientation. The third stage, known as conforming to the will of the group is characterized by pleasing or helping others to get approval or avoid disapproval. There is considerable conformity to standard ideas of what is the will of the majority. Here, one gains approval by being "nice." The law and order stage or stage four is typified by the obedience to rules for their own sake. Moral decisions are justified on the basis of fixed rules which are "necessary" to maintain order. Right behavior consists of doing one's duty, showing respect for authority, and maintaining the given social order for its own sake.

The post conventional level or level three represents an effort to define moral values and principles that seem generally true and valid, apart from the authority of the group or persons holding these principles and apart from the individual's own identification with these groups. Level three involves a greater preoccupation with similarities of all men, a more universalistic approach than that found in level two where there is a preoccupation with one's own group. Kohlberg views this level and its two substages as representing what has been referred to in the moral development literature as the internal moral oriented type of moral reasoning. It is these two stages that, according to Kohlberg, few individuals attain. In the stage of social contract, constitutionalism, and higher law or the fifth stage correct action tends to be defined in

terms of general values that have been agreed upon by the entire society. In addition to what is constitutionally and democratically agreed upon, the right is a matter of personal value and opinion. At this level one often seeks to solve moral issues by passing laws, which are justified by more general principles such as "the greatest good for the greatest number." Laws can and should be challenged and changed when they violate more general humane principles. Following from this, when the government consistently violates human principles, one has the right of revolution because the government has broken the social contract. In the final or personal conscience stage, right is defined by the decision of personal conscience in accord with general ethical principles that apply to all men everywhere, regardless of the individual, group or nation. These principles are abstract and ethical. These principles are universal such as those of justice, of the reciprocity and equality of human rights, and of the respect for the dignity of human beings as individual persons. These principles are not tied to a particular culture or society, but apply to all men.

Despite the apparent abstractness and generality of these stages, each can be specifically applied to any of a number of value issues. It is through the use of the Moral Dilemmas that Kohlberg exposes individuals to numerous value issues. These value issues typically include such things as property, law, and civil liberties just to mention

a few. It is Kohlberg's contention that there is, for instance, a different stage position on each value. Therefore, Kohlberg can account for six different orientations for each value.

The stages, according to Kohlberg, are stages of reasoning. Each stage can be used as rationale to support yes or no choices on almost any question with a moral loading. Since these are stages of reasoning, it is possible that an individual may use one stage while dealing with one type of moral question, and use a different stage of reason while coping with the second one. Similarly, the same individual may employ different stages at different times, but typically an individual is somewhat consistent. That is, an individual will typically employ his own stage of reasoning and will rarely use reasoning one stage above or below and almost never utilize reasoning two stages above or below his ascertained level. The individual's ascertained stage is that particular level at which he typically or customarily functions in regard to the Moral Dilemma situations.

The Task, the Ethics, and the Alternatives

While Kohlberg's theory and his Moral Dilemmas provide a manner for the determination of moral orientation, that is, whether the individual is internally or externally oriented, what of the task to assess the relationship between moral orientation and moral behavior? In order to

test the competing predictions from Freudian and Reissian theories, it would be necessary to place a subject in a situation of deep consequences to the participants.

A careful search was undertaken to locate or develop a technique that would be suitable for testing these theories as well as one that was realistic and meaningful for the participants. The technique selected was that of Milgram (1965). Over the years this has been a most controversial paradigm. A number of criticisms regarding the Milgram paradigm have been made, these will be taken up later under the ethical issues raised by this research. Nevertheless, there are a number of compelling reasons for the utilization of this situation. In the first place, it was necessary to place a subject in a situation in which strong external opposition confronts a supposedly internalized norm. Therefore, one of the assets of this format was to study behavior in a strong situation of deep consequences to the participants. That is because the psychological forces operative in powerful and lifelike forms of conflict cannot be aroused in what Milgram terms, "diluted conditions." In order to produce a meaningful situation, grave steps have to be taken often bordering on the unethical or as viewed by some as obviously unethical. For these reasons, most social scientists have avoided this area. Furthermore, this investigator was not aware of another technique that could develop that conflict so meaningfully. According to Milgram, "Thus, the naive subject must resolve a conflict

between two mutually incompatible demands from the social field. He may continue to follow the orders of the experimenter and shock the learner with increasing severity, or he may refuse to follow the orders of the experimenter and heed the learner's pleas. The experimenter's authority operates not in a free field, but against evermounting countervailing pressures from the person being punished." Additionally, this technique represents the only means available to investigate external pressure to deviate. Virtually all of the research cited earlier emphasized internal pressures to deviate. Finally, this instrument provides an excellent dependent variable on which to predict the performance of subjects, based on their moral orientation score.

By its very nature, the Milgram paradigm is a deception technique. In the last several years, following a wave of great popularity, experiments using deception have come under much criticism. Concern has been expressed about both ethical and methodological aspects of the use of deception, and of the very necessity of deception research. Kelman (1966, 1967) among others has suggested role playing as an alternative to deception research. Kelman states, "(We should) invest some of the creativity and ingenuity, now devoted to the construction of the elaborate deceptions in the search for alternative experimental techniques that do not rely on the use of deception."

Out of this criticism several attempts to substitute

role playing for deception have arisen. Research carried out in the early 1960's (Rosenberg and Abelson, 1960; Guetzow, Alger, Brody, Noel and Snyder, 1963; Deutsch, 1960; Rosenberg, 1960) have produced results that are equivocal as to the effectiveness of role playing as a substitute for deception. More promise was found in research generated in the late 1960's and the early part of the present decade. Nord (1969) used role playing as a rather effective substitute for deception in an experiment where the latter would have been inconvenient to use, however, no comparisons were run. Willis and Willis (1970) conducted an experiment in which a direct comparison between role playing and deception was made, hoping to indicate the conditions under which role playing may be substituted for deception. Their results indicated that the main effect exhibited by the deceived subjects was nicely duplicated by the role playing subjects. However, a more subtle interaction, shown by the deceived subjects, was not apparent in the behavior of the role playing subjects.

Greenberg (1967) conducted a replication of Schacter's (1959) study of birth order, anxiety, and affiliation designed to test the utility of role playing. His subjects were informed beforehand that it was all make-believe, but were asked to respond as if they were actually in the hypothetical situation. When the data were analyzed in terms of the experimental manipulation of anxiety, results were inconclusive. However, when the subjects were categorized

according to perceived anxiety, as measured by a questionnaire, Schacter's results were replicated. While the Greenberg experiment provides some evidence in favor of role playing as a workable alternative to deception, the comparison was not a direct one. The two groups of subjects were run by different experimenters, at different times, at different places, and drawn from different populations. Darroch and Steiner (1970) indicated that role playing was a rather effective substitute for deception. In their research, role playing subjects were asked to predict their own behavior in the experimental situation to which other subjects had been exposed (deception condition). Their hypotheses concerned the differential efficacy with which an individual could predict his own behavior as compared to predicting the behavior of others. Earlier research had shown the latter to be rather ineffective. As in the Greenberg study the findings generated by role playing subjects were compared with those produced by subjects actually exposed to experimental conditions. Although the means of the predictions of the role playing group did not match the means of the scores obtained by the subjects actually participating in the experiment, the two sets of data revealed the same relationships between responses. Darroch and Steiner interpreted these results as evidence for the efficacy of role playing serving as an alternative to the actual laboratory experiment (deception). The authors offered an explanation for the failure of role playing

subjects to duplicate the scores of the experimental subjects. This involved a lack of communication by the experimenter of some of the critical circumstances of the experiment to the role playing subjects. It was possible that other stimuli present in the laboratory setting prompted the experimental subjects to produce average responses that deviated from those of the role playing subjects. If this were the case, these additional stimuli probably operated similarly in all four experimental treatments. And it was found that all treatments revealed the same discrepancies between the mean scores of the two samples. Accordingly, the implicit theories that shaped the role playing subject's estimated responses to the circumstances were not inaccurate, instead these subjects reacted to a set of circumstances that did not completely correspond to those experienced by laboratory participants.

Most experiments comparing role playing with deception have relied on one of two role playing variants. These have been described as prebriefing (Willis and Willis, 1970; Horowitz and Rothschild, 1970) and forewarning (Darroch and Steiner, 1970; Greenberg, 1967; Horowitz and Rothschild, 1970). For the most part, experiments examining role playing have looked at it solely in relation to its efficacy as a substitute for deception. In one experimental endeavor (Horowitz and Rothschild, 1970) in addition to this usual comparison, efforts were undertaken to study these two types of role playing in a direct comparison as

well. Prebriefing was described as the explanation, preceding the standard instructions, given to role players in rather elaborate fashion. Deceptions were explained in detailed and specific terms. In the forewarning variant the experimenter warned the subjects in advance that not everything in the instructions were true, that it was make-believe, but to act as if the situation were real. However, the elaborate and detailed description of the experimental manipulations was omitted. In their study on conformity, Horowitz and Rothschild noted that the results indicated that the prebriefing variant of role playing yielded significantly less conformity than either the forewarned or deceived subjects. The forewarned and deceived groups yielded comparable results. Horowitz and Rothschild concluded that the forewarned variant proved to be an effective substitute for deception in both the Greenberg study and their own. Further they noted, "The forewarned variant appears to mitigate the ethical pitfalls of deception without vitiating the experimental realism of the manipulation."

Miller (1972) has been sharply critical of the substitution of role playing for deception. In his review of the role playing literature he presents two arguments against this technique as a suitable replacement for deception. In the first place he views role playing as not sufficiently realistic and secondly, feels that an individual cannot very accurately report his own reactions (role playing).

On the other hand, Zimbardo (1973) recently reported a study demonstrating not only the realistic experience that can be achieved through role playing, but also the individual's ability to experience and express emotions as if being in the actual situation. Furthermore, he noticed that his subjects lost that objective, uninvolvement for which role playing is often criticized and his subjects immersed themselves in their roles until the same roles became part of their identity. Also, Zimbardo heightened the realism for his subjects by the props and scenery used to assist in the role playing. Zimbardo noted, "It should be apparent that the elaborate procedures (and staging) employed by the experimenter to insure a high degree of mundane realism in the mock prison contributed to its effective functional simulation of the psychological dynamics operating in real prisons." Based on direct observations of behavior, video recordings, questionnaires, self report scales, and interviews, Zimbardo concluded that, "All these data sources converge on the conclusion that this simulated prison developed into a psychologically compelling prison environment."

In order to develop some feeling for the involvement of the subjects in their roles and the meaningfulness of this experience to them, the following account by Zimbardo is included here:

> The most dramatic evidence of the impact of this situation upon the participants was seen in the

> gross reactions of five prisoners who had to be released because of extreme emotional depression, crying, rage, and acute anxiety. The pattern of symptoms was quite similar in four of the subjects and began as early as the second day of imprisonment. The fifth subject was released after being treated for a psychosomatic rash which covered portions of his body. Of the remaining prisoners, only two said they were not willing to forfeit the money they had earned in return for being "paroled." When the experiment was terminated prematurely after only six days, all the remaining prisoners were delighted by their unexpected good fortune. In contrast, most of the guards seemed to be distressed by the decision to stop the experiment and it appeared to us that they had become sufficiently involved in their roles so that they now enjoyed the extreme control and power which they exercised and were reluctant to give it up. One guard did report being personally upset at the suffering of the prisoners, and claimed to have considered asking to change his role to become one of them, but never did so. None of the guards ever failed to come to work on time for their shift, and indeed, on several occasions guards remained on duty voluntarily and uncomplaining for extra hours, without additional pay.

Zimbardo noted that these differential reactions to the experience of imprisonment were not suggested or predicted by the self report measures of personality and attitude or the interviews taken before the experiment began. The standardized tests used indicated that a perfectly normal, emotionally stable, sample of subjects had been selected.

Nonetheless, in less than one week their behavior in the simulated prison could be characterized as pathological and antisocial. The negative antisocial reactions were not the product of an environment created by combining a collection of deviant personalities, but rather, the result of an intrinsically pathological situation which could distort and rechannel the behavior of essentially normal individuals.

Hypotheses

Major Hypotheses

1. Subjects with an internal moral orientation will administer electric shock to another individual less than subjects with an external moral orientation.

2. Subjects under high experimenter pressure will administer electric shock to another individual more than subjects under low experimenter pressure.

3. Internal moral oriented subjects under high pressure will shock more than internal moral oriented subjects under low pressure. External moral oriented subjects with high pressure will shock more than external oriented subjects with low pressure.

Secondary Hypotheses

1. As pressure is increased an increased proportion of subjects will shock more. Conversely, as the pressure is decreased, an increased proportion of subjects will shock less.

2. As the pressure increases, an increased proportion of subjects will be more anxious. Conversely, as the pressure decreases, an increased proportion of subjects will be less anxious.

3. The more a subject shocks, the more anxious he will become. Conversely, the less a subject shocks, the less anxious he will become.

4. The greater responsibility the subject takes for his own action, the less he will shock. Conversely, the less responsibility the subject takes for his own actions, the more he will shock.

5. The more concern the subject shows for the person being shocked, the less he will shock. Conversely, the less concern the subject shows for the person being shocked, the more he will shock.

6. The more powerful the experimenter is perceived by the subject, the more the subject will shock. Conversely, the less powerful the experimenter is perceived by the subject, the less the subject will shock.

7. The more negatively the subject perceives the learner, the more the subject will shock him. Conversely, the less negatively the subject perceives the learner, the less the subject will shock him.

CHAPTER II

DESCRIPTION OF RESEARCH PROCEDURES

Objective of the Research

The objective of the research described below is to test predictions relating moral orientation (internal or external) to the willingness of a subject to violate a presumed internalized norm not to harm others. Consequently, this study focuses on the behavioral manifestations of moral reasoning, as well as the relationship between cognitive and behavioral aspects of moral development.

General Design

Stated briefly, the design of this research involves three phases: (1) the pretesting, (2) the experimental task, and (3) the post experimental operations. In the pretesting or screening stage, the subject's moral orientation is determined, as well as having certain demographic information collected. Following that, subjects are placed in the experimental situation in a counterbalanced design controlling for both moral orientation as well as experimenter pressure. During that period of time, behavioral observations involving the subject's relationship with the confederate and the experimenter are made and noted by the experimenter. Subsequently, the subject is administered a

number of questionnaires to assess his thoughts and feelings following his role in the experiment. The final aspect of the post experimental operations involves debriefing of the subject.

The independent variables include the subject's moral orientation and the degree of experimenter pressure to which the individual is exposed. The dependent variable is represented through the degree to which the subject is willing to harm another person in an experimental paradigm.

Since the independent variables are manipulated in such a way as to present a counterbalanced design no control is felt to be necessary. That is, each subject represents a position on two different dimensions (moral orientation and experimenter pressure). The total sample was subdivided into four groups of equal frequencies. This provides representation on the four possible combinations of the two variables. As a result, each group serves as a control for every other group. For example, a group characterized as being internal moral oriented and subjected to high experimenter pressure would provide a control for the group characterized as being internal moral oriented and subjected to low experimenter pressure and vice versa.

Operationalization of Independent and Dependent Variables

Moral Orientation

One of the most important factors in the present investigation was the determination of the subject's moral orientation. That is, whether the subject is characteristically internal or external in his search for cues to provide guidance for his moral reasoning and ultimately his moral behavior. As pointed out earlier, the Freudians suggest a reliance on values incorporated from the parent that have become a part of the individual. On the other hand, the Reissians have placed little value on the concept of internalization and rely on sources external to the individual to provide not only guidance, but surveillance of his behavior as well.

Considerable research has involved efforts to assess the degree of internalization of moral values. Typically, it has used three measures: resistance-to-temptation, guilt, and internal vs. external orientation. Most research in this area has involved children and has been divided between behavioral and pencil and paper indices of internalization. In the present research, the implement to determine moral orientation is a non-behavioral technique.

This choice then, Kohlberg's Moral Dilemmas (1958, 1963), is dictated by a number of factors. In the first place, it is suited to an adult population, whereas most of the aforementioned instruments have been utilized solely with children. Secondly, it is a paper and pencil measure that assesses moral orientation, not moral behavior. This represents the major deficiency of behavioral techniques, that

they don't measure moral orientation. Consequently, Kohlberg's technique allows a test of whether there is congruence between modalities, moral orientation (cognitive) and moral actions (behavioral). This would add considerable power to this technique. On the other hand, if a behavioral determinant of internalization were used in conjunction with the behavioral task, there would be no means to compare moral orientation and moral behavior, but only two instances of moral behavior. Other reasons for the choice of this technique are that Kohlberg provides an instrument that is relatively widely used and accepted by researchers in the area, relatively easily scorable, and demonstrating a reasonably high interjudge reliability for high inference data (.68 to .84).

It is through the use of Kohlberg's Moral Dilemmas and their subsequent scoring that subjects are differentiated for the behavioral task as to internal or external moral orientation. Individuals producing protocols that could be designated as post-conventional thinking (Kohlberg's stage 5 or 6) are listed as internal moral oriented subjects. Individuals producing protocols that could be designated as conventional thinking (Kohlberg's stage 3 or 4) are listed as external moral oriented subjects. Therefore, it is as a result of the subject's performance on the Moral Dilemma's task that his particular moral orientation is determined.

Experimenter Pressure

Reiss has suggested that internalization is not the critical factor in guiding the individual's moral reasoning or behavior, but that influences external to the individual assume a dominant role in directing the individual. Therefore, in addition to assessing the subject's moral orientation and manipulating that variable, serious consideration must be given to the pressure under wnich the subject operates. That is, not solely the pressure associated with performing an act for which there is presumably a norm against its behavioral expression, but that type of pressure dissociated from the individual, not arising from intrapsychic factors, but originating from sources external and beyond the individual.

Several avenues exist for the application of external pressure upon the individual. These reside in various manipulations that might be made in the experimental environment. One major avenue that offers possibilities includes variations in the pressure associated with the regulation of the victim's responsivity to the subject's behavior. This has been explored in a number of studies, but the work of Milgram (1965) seems most pertinent, especially since a variation of his pardigm was selected for use in this investigation.

In his work (1965) Milgram explored the immediacy of the victim to the subject under four conditions. In the first condition (Remote Feedback) the victim was placed in

another room and could not be heard or seen by the subject except at 300 volts, when the confederate pounded on the walls in protest. After 315 volts he no longer answered or was heard from. The second condition (Voice Feedback) was identical to the first except that voice protest was introduced. As in the first condition, the victim was placed in an adjacent room, but his complaints could be heard clearly through the door left slightly ajar and through the laboratory walls. The third experimental condition (Proximity) was similar to the second, except that the victim was placed in the same room as the subject, and one and a half feet from him. The final condition (Touch-Proximity) was identical to the previous condition except that the victim received a shock only when his hand was on a shock plate. Further, after 150 volts the victim refused to place his hand on the shock plate and the naive subject was requested to place the victim's hand there. Milgram studied 40 subjects in each condition and found that obedience was significantly reduced as the victim became more immediate to the subject. Expressed in terms of defiance to the experimenter: 34 per cent of the subjects defied the experimenter in the Remote Condition, 37.5 per cent in the Voice Feedback Condition, 60 per cent in the Proximity Condition, and 70 per cent in the Touch-Proximity Condition. Milgram suggested rationale for the behavior in these conditions. He attributed the results to a number of factors which included the following: (1) In situations in which the subject was

more immediate to the victim he received greater empathic responses than under more distant conditions, (2) When the victim was more remote, it was easier for the subject to deny the actual activity in which he was involved and thereby narrow his cognitive field and put the subject out of his mind, (3) The closer the subject was to the victim, the closer the victim was to the subject. Possibly, it is easier to harm another person when he is unable to see what we are doing, than when he can see what we are doing, and (4) The more remote the subject from the victim, the less relatedness he associated with his own actions and the consequences for the victim. Therefore, it would appear that when a subject is harming another individual, he experiences greater pressure from various sources, as a result of his increasing proximity to the victim. Conversely, the subject is able to reduce that pressure considerably by having the victim be increasingly remote from him.

A second manner for regulating pressure in the experimental situation involves alterations in the relationship between the experimenter and the subject. Milgram (1965) has also explored this avenue. In particular, he varied the physical closeness and degree of surveillance by the experimenter. In one condition, the experimenter sat a few feet from the subject. In a second condition, after giving initial instructions, the experimenter left the laboratory and gave his orders by telephone. In a final variation,

the experimenter was never seen, and instructions were provided by a tape recorder which was activated when the subject's entered the laboratory. Milgram reported that obedience dropped sharply as the experimenter was physically removed from the laboratory. The number of obedient subjects in the first condition was almost three times as great as in the second, where the experimenter gave his orders by telephone. Also, subjects were more obedient in the second, than in the third condition. Milgram concluded that subjects seemed able to take a far stronger stand against the experimenter when they didn't have to encounter him face to face and the experimenter's power over the subject was severely curtailed. Accordingly, Milgram noted,

> Experiments in this series show that the physical presence of an authority is an important force contributing to the subject's obedience or defiance. Taken together with the first experimental series on the proximity of the victim, it would appear that something akin to fields of force, diminishing in effectiveness with increasing psychological distance from their source, have a controlling effect on the subject's performance. As the victim is brought closer, the subject finds it harder to administer shocks to him. Whenever the victim's position is held constant relative to the subject, and the authority is made more remote, the subject finds it easier to break off the experiment. This effect is substantial in both cases, <u>but manipulation of the experimenter's position yielded the more powerful results</u>.

Based on Milgram's research as well as some pilot work to be presented later, it is felt that manipulating the experimenter's position would prove a more powerful technique than varying the victim's proximity to the subject as a device to regulate pressure. Other reasons for employing this

method would be that it is somewhat less cumbersome and complicated than modifying the subject-victim relationship. Also, based on the numerous activities that the victim is faced with mastering, it would prove to be more reasonable to have the experimenter make changes in his performance. In addition, manipulating the pressure imposed by the experimenter is also advantageous because it affords the experimenter, as well as the victim, better opportunity to make behavioral observations that would not be feasible under another format. Finally, the variation of the experimenter's proximity to the subject, would provide additional avenues to assess the differential efficacy of role playing that the subject-victim format would not.

In summary, the pressure placed on the subject in the experiment will be varied by the experimenter-subject proximity. Conditions will be tested in the pilot study to determine what experimenter-subject relationship or proximities best capture those conditions to be labeled high and low pressure. It is believed, based on earlier research, that when the experimenter is psychologically closer, the subject experiences this as relatively high pressure, compared to instances where the experimenter is remote, and which is experienced by the subject as relatively low pressure.

The Dependent Variable: Shocks Administered

In this study the dependent variable, or that

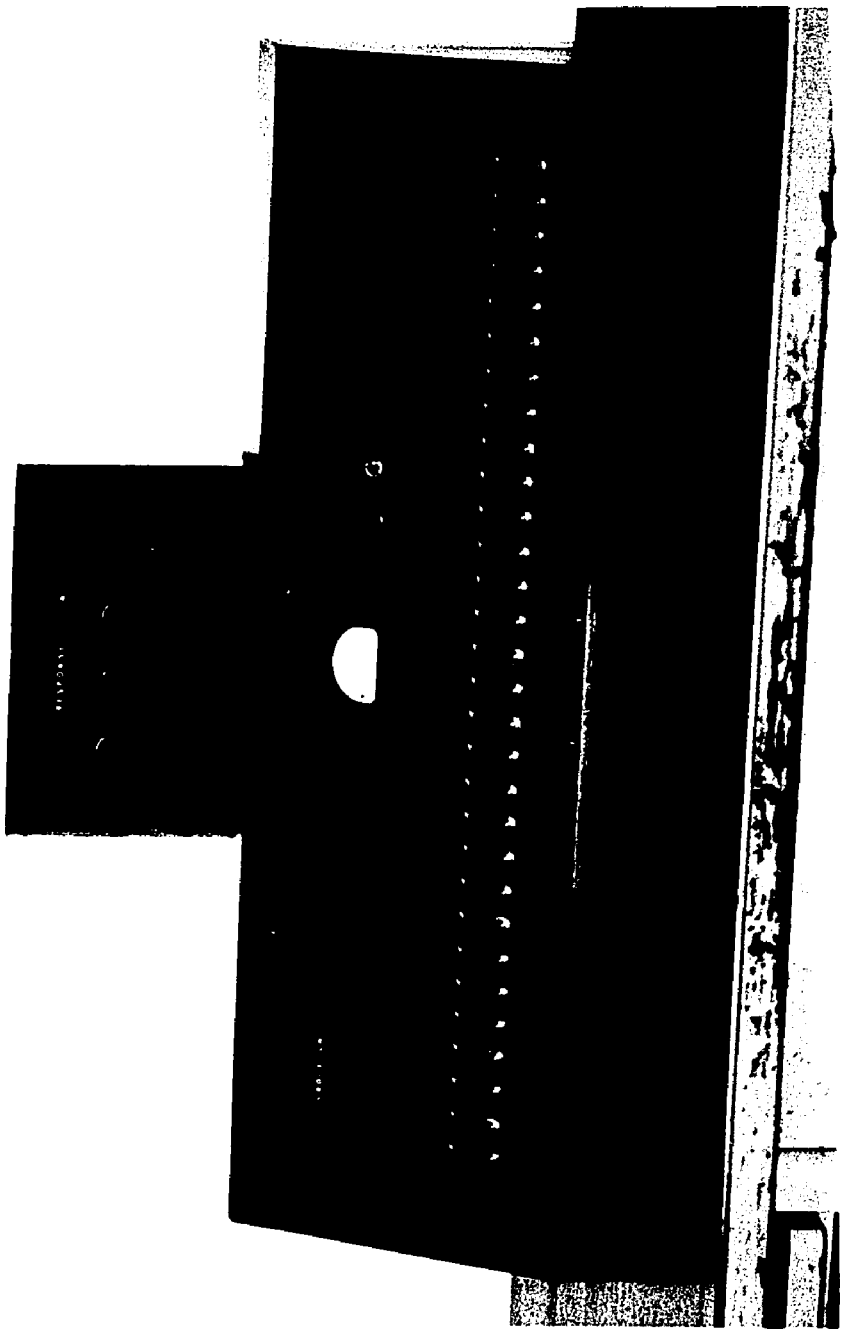
performance of the subject which is measured, is the maximum number of shocks a subject will administer before refusing to go any further. In principle, this may vary from zero, for a subject that refuses to administer even the first shock of the practice trials, to 40, for a subject who administers the highest shock on the generator. This follows very closely the format developed by Milgram (1963). The patient's final score indicated his highest level of shock administered. The higher the score, the more shock is delivered. The experiment is terminated either at the request of the subject or when he has attained the maximum shock value. The experiment is stopped when on any given trial (particular shock level), the subject is unwilling to go on, and successfully fends off four sequential and standarized prods of increasing intensity from the experimenter. Whenever the subject balks on a trial, the experimenter must begin the sequence again. If the experimenter utilizes the fourth prod and the subject refuses to go on, the experiment is terminated. If the subject continues to shock the victim without refusing to complete the task, then the experimenter stops the session after the fortieth trial.

Equipment

The major apparatus in this research is a shock generator modeled after that of Milgram (1963, 1964, 1965, 1966, 1967). The instrument panel consists of 30 levers (momentary switches) set in a horizontal plane (see Figure I).

Figure 1

SHOCK GENERATOR



Each switch is clearly labeled with a voltage designation that ranges from 15 to 450 volts. There is a 15 volt increment from one switch to the next, going from the left to the right. In addition, the following verbal designations are clearly indicated for groups of four switches from left to right: Slight Shock, Moderate Shock, Strong Shock, Very Strong Shock, Intense Shock, Extreme Intensity Shock, Danger: Severe Shock. The last two switches are simply marked XXX.

Upon the depression of a switch, a pilot light corresponding to each switch, and slightly above it, is illuminated in bright red; an electronic buzzing is heard; and the dial on the voltage meter swings to the right to a position corresponding to the volts indicated by the corresponding lever. Details of the instrument were carefully handled to insure an appearance of authenticity. The laminated control panel is placed in a neatly finished walnut panel.

On the back of the instruments were a series of plugs that, with the use of additional wiring, are connected to instrumentation in the adjacent room. One such device is a panel which indicates which of the 30 switches is depressed by the naive subject. This is to assess the exact lever depressed by the subject and to avoid any confusion in situations where the subject verbally reports pushing one switch and has for some reason depressed another. The victim also had use of a second, four buttoned box, with which he might indicate a response (one through four) on a paired associates learning task. This device is connected to a receptor unit

in the subject's room, and a box with four numbered lights is innervated by the use of this unit. In this manner, the victim could show the subject which of four alternatives he is choosing. This removes the necessity for verbal communication, an important factor in this paradigm.

Controls

Pilot Studies

Prior to the execution of the research proper, a number of pilot investigations were undertaken. The purpose of this activity was to determine, in a field setting, the suitability of a set of techniques for this research effort. Based on previous research, as well as a survey of the literature relevant to topics to be researched, these techniques appeared to be appropriate. It was the objective of these studies to assess these instruments in an experimental setting. Essentially, the pilot studies were broken down into two areas of investigation. The first, those dealing with Kohlberg's Moral Dilemmas, and the second, those examining the usefulness of the Milgram paradigm, as well as the suitability of role playing.

1) Moral Dilemmas Prestudy

It was the purpose of this research effort to investigate not only the appropriateness and usefulness of this instrument, but also the most suitable population with which to use it. As was noted earlier, Kohlberg suggests

that a relatively small number of adults attain the post conventional level (stages five and six). It is this level of moral reasoning that Kohlberg associates with an internal moral orientation. Since a greater number of individuals, according to Kohlberg, reach only the conventional level (stages three and four) of moral reasoning, which he associates with an external orientation, the obvious research question posed is which population of subjects maximizes the number of internal moral oriented individuals? This becomes critical, especially in light of the relatively large number of external moral oriented subjects in most adult populations.

Several populations of individuals were examined so as to locate the population that maximized the number of individuals with an internal moral orientation. The instrument utilized in this research was Kohlberg's Moral Dilemmas, Form B (See Appendix A). This instrument consists of five stories in which the participants are put in a dilemma of a moral nature. It is through the answering of numerous standardized questions that a score is derived for each subject. The content of each subject's response is of relatively little importance in the scoring schema. What is crucial is the rationale used for choosing one source of action over another. It is through the examination of the type of moral reasoning used by the subject that Kohlberg is able to attribute his overall moral reasoning to one of six

stages. From that stage analysis, scores are converted so as to determine whether subjects are internal or external in their moral orientation.

The first sample to be examined was the Treatment Unit (Ward C-2) at the Federal Correctional Institute (FCI) at Milan, Michigan. The makeup of this unit essentially involved young male offenders incarcerated for relatively minor offenses and determined by staff to be the best treatment prospects in the institution. These individuals were in their early twenties and most were being considered for early release. The sample used was white males, to allow for greater homogeniety and comparability to other samples. The questionnaire was administered to the subjects in a large conference room. The range of time to complete the instrument varied from 30 minutes to two hours. No time limit was set. Following the administration of the Moral Dilemmas, they were mailed to Harvard University for scoring. The results of this analysis indicated that only one in five was an internal moral oriented subject, this being a borderline case. Two individuals appeared to represent an external moral orientation, and the final two provided, as a result of some mental pathology and scoring difficulties, essentially unscorable protocols.

A second, quite diverse population was investigated at the University of Michigan. Eight white males were randomly selected from the subject pool in the Psychology De-

partment. Two group administrations of Kohlberg's Moral Dilemmas, Form B, were given to accommodate the subjects' schedules. Typically, these individuals were in their late teens, middle class, and freshmen or sophomores. In the task performance, these individuals seemed somewhat more contemplative and responsive than the FCI sample. These are critical differences, since the raw material for scoring is the moral reasoning used by the subject. Also of importance is the greater wealth of material provided by the respondent. It is through the examination of this material that a stage analysis is determined. Typically, greater responsiveness provides the coders with a greater ability to score accurately the protocols and gauge the subject's level of moral reasoning. Subsequently, the protocols were sent to Kohlberg's Moral Education and Research Foundation at Harvard for scoring. Of the eight protocols sent, two were internal in moral orientation and one was borderline internal moral orientation. The other five protocols were external in moral orientation. All of the protocols were scorable.

Another sample was taken at Eastern Michigan University. This group provided a considerably larger sample than at either FCI or the University of Michigan. Age and class level of this sample were similar to that taken at the University of Michigan, however, the social economic status was more one of working class or lower middle class. In general, protocols from this group were characterized as being intermediate in responsiveness and thoughtfulness relative to the

FCI and University of Michigan groups. Following the administration of the questionnaire, the completed protocols were sent to Harvard. Upon their return it was noted that the percentage of internal moral oriented subjects was considerably lower than that from the sample at the University of Michigan, but higher than that from FCI.

After an analysis of the three selected samples, it was determined that the subject pool at the University of Michigan provided the most suitable characteristics for the investigation, based on their scores from the Moral Dilemmas for the following reasons. First, the population at the University of Michigan provided the largest percentage of internal moral oriented subjects of the three samples. It is believed, that despite Kohlberg's contention that there is a normal distribution of scores in a college population, that this was not found to be an accurate assessment of the groups studied. Secondly, the University of Michigan Psychology Department provided a relatively large sample that was readily accessible for an extended period of time (necessary for the completion of this study). And of equally great importance was the fact that subjects from the University of Michigan provided the most contemplative and responsive protocols. This, in turn, led to easier and more accurate scoring of the protocols, a prime requisite for the determination of a subject's moral orientation. As a result of these three major criteria, it was determined that the

population at the University of Michigan represented the most adequate characteristics, primarily in relation to the moral orientation criterion, for the purposes of this investigation.

2) The Milgram Paradigm and the Suitability of Role Playing

Since the University of Michigan sample provided the most suitable characteristics for this research endeavor, it would be reasonable to select a sample from that institution to test out the effectiveness of the Milgram paradigm as well as the role playing model. However, since this pilot was to be carried out during the Spring-Summer trimester, the subject pool at that institution was quite small and already depleted. Consequently, another population as similar in characteristics to the University of Michigan group had to be located. The most logical alternative and that which was geographically feasible was provided by the subject pool at the Eastern Michigan University.

The physical plant in which the research was carried out was a modern, well lit, air conditioned building. Three consecutive, spacious rooms were assigned to the experimenter. The experimental area was removed from the Psychology Department as a whole, and located in a "U" shaped corridor with access to the outside hallway by two different doors. This later would prove to be quite a useful feature.

Something might be said about the set up of the

equipment. In the first room, to be labeled A, was located the shock generator, a lighted panel above the shock generator to indicate responses made by the victim, and an intercom to provide communication between the subject and the victim. An additional intercom unit was located in this room, but was only made available to the subject under another experimental condition, when the experimenter was absent. Room B, the room where the victim or stooge was located, contained the following: a set of electrodes and electrode bands, a four buttoned indicator to show the victim's responses in room A, a bottle of "EEG Electrode Paste," and an intercom connecting room B with A. It might be noted that room A's intercom, despite instructions to the contrary to the naive subject, was always on open channel. However, the intercom in room B only transmitted when the stooge depressed the lever. Also found in room B, but kept out of view until the naive subject left the room, was an indicator panel to alert the stooge as to which lever on the shock generator had been depressed. Additionally, out of sight was a tape recorder that contained standardized responses of the stooge. The third room or room C contained only an intercom connected to room A. This room was used solely in the experimenter absent condition. The intercom from room A to C was always open, and the subject was informed of this, while the intercom from room C to A only functioned when a button was depressed.

The typical procedure involved the experimenter to call

and schedule a subject. Based on an Eastern Michigan University research policy, these telephone calls were followed up by postcards, indicating the date, time, place, and duration of the experiment. Once the subjects were scheduled the experimenter contacted the individual playing the role of the victim or stooge. Usually, the experimenter and his assistant arrived at the research site 15 to 20 minutes prior to the scheduling of the first experimental session of the day. This allowed ample time to coordinate experimental performances as well as test equipment and repair any apparatus malfunction. The stooge was sent out in the hallway about 10 to 15 minutes early and always preceded the naive subject. This was also the case after each trial and prior to the subsequent naive subject's arrival. It might be pointed out that not only did the victim look and act the part of a student, but in fact, was an undergraduate student at Eastern Michigan University.

By both telephone and postcard, the subjects were told to meet the experimenter in the hallway. The victim was encouraged to answer any questions posed to him by the naive subject to avoid arousing suspicions, but was not to form any type of relationship with the naive subject, so that the subject's performance during the experiment would not be affected. Another factor stifling the development of a relationship in the hallway was the experimenter's careful scrutiny of the subject's arrival through the peephole in the second door mentioned earlier. Shortly after

the arrival of the naive subject the experimenter met the subject in the hallway. The experimenter was wearing a white laboratory coat and tie, to give the appearance of a researcher. In addition, a laminated nameplate - Dr. Epstein - was worn on the breast pocket of the lab coat. Naive subjects typically called the experimenter either Dr. Epstein or Professor Epstein and all assumed that he was a researcher in the Psychology Department at the University.

When the experimenter arrived in the hallway he questioned whether the two individuals were there for the particular experiment being conducted. Following that the experimenter introduced himself to the two and stated, "Hello, my name is Dr. Epstein and I assume you are here to participate in the experiment. Let me show you inside." The subjects were then escorted to what had been designated earlier as Room A and asked to be seated.

In the pilot study the forewarning variant of role playing was used and presented in the following manner:

> I'd like your cooperation in an experiment on role playing. In role playing, the persons involved act or make believe they are in a particular situation. What I'd like you to do is to play the role of a subject in an experiment and I will play the role of the experimenter. It is very important that you take this role seriously and that you act as if this were a real situation.

Following this the subjects were asked if they had any questions.

After having finished answering any questions raised, the following statement was presented to the subjects:

> Psychology has invested a great deal of time, money, and research into the study of learning. Nevertheless, we know very little about the effect of punishment on learning, because almost no truly scientific studies have been carried out on humans.
>
> For instance, we don't know how much pain is best for learning, and we don't know how much difference it makes as to who is giving the punishment, whether an adult learns best from a younger or older person than himself, or many other things of this sort. So in this study we are bringing together a number of people. We are asking some to be teachers and some to be learners.
>
> We want to find out just what effect different people have on each other as teachers and learners, and also what effect punishment will have on learning in this situation. Therefore, I am going to have one of you be the teacher and one of you be the learner. So that this choice will be fair, I am going to have you draw for your positions.

The experimenter then stated, "Please reach into the can and draw a slip of paper. The person that receives the piece of paper with 'teacher' on it will be the 'teacher,' the other person will be the 'learner.'" After this selection procedure, which was rigged, (both name tags having "teacher" on them, the victim indicating he received the "learner" tag if he drew and the subject receiving the "teacher" tag if he drew) both subjects were escorted to the adjacent room, or room B as specified earlier. There the victim was requested to be seated in a chair before a large table. The naive subject was allowed either to be seated in another chair or to stand. Shortly thereafter the experimenter began placing electrodes on the stooge or learner. While placing the wires, electrodes, and paste on the stooge, the experimenter stated, "I am placing electrode paste on his arms to avoid blisters and burns. The electrodes I am

placing on his arms are connected to the shock generator in the next room. Although these shocks can be very painful, they cause no permanent tissue damage."

After checking with the stooge that the electrodes were not too tight, the experimenter said to the naive subject, "Now let's return to the other room." Shortly thereafter, the stooge easily removed the electrodes. He then brought out the tape recorder, with its standardized responses and equipment to monitor the naive subject's responses from their hiding places.

When the experimenter returned to room A with the naive subject he had the subject sit before the console and began an explanation about the paired associates task, the supposed learning task. "Now I am going to show you a list of ten words, each word having another word that goes along with it. First you are to read each word pair to the learner, going over the entire ten pairs in order. Then you are to read the first word in each pair and the four alternatives that go with it." The stooge also had an identical list of words, with full knowledge of the correct alternatives. A schedule of correct responses, approximately one third of the correct responses was used with all of the subjects, both on the practice list and the experiment proper. All of this information was unknown, of course, by the naive subject.

Attention was then turned to an explanation of the impressive looking shock generator. The experimenter said the following:

This is the shock generator. Note that it has 30 switches, showing progressive 15 volt increases from 15 to 450 volts. Every time you push one of these switches, the learner will receive a shock corresponding to the voltage of that switch.

Every time the learner responds, his answer will show up on this panel. He may make a mistake by not pushing a button, or he may push the wrong button, or he may choose the correct response. His answer will show up on this panel. Whichever, you are to do the following:

(1) Push the button on the intercom and hold it down so that the learner can hear you. This is important because the rooms are accoustically controlled to reduce the transmission of sound.

(2) Tell the learner whether his response is correct or incorrect.

(3) If it is correct, tell him so and then say that you will proceed to the next word.

(4) If wrong, tell him he was wrong, and then give him the correct response.

(5) Then tell him at what level the shock will be.

(6) Push the appropriate shock switch.

(7) Remember to hold down the shock switch for several seconds.

(8) (At this point, the subject was provided with an example.)

(9) Please remember to move one level higher on the shock generator each time the learner provides the wrong response.

With the completion of these basic instructions, a practice list of ten words was presented. The purpose of this practice list was two-fold. In the first place, it provided the naive subject a chance to become acquainted with the equipment and the procedure, which initially proves to be somewhat complicated, but is easily mastered in the practice series. Secondly, it offered the stooge an

opportunity to learn the response of each subject (latency of response, length of time shock levers were depressed, etc.) so that during the experiment proper the stooge could gauge his responses so as to be consistent with those of the naive subject. When the experimenter handed the word list to the subject he stated, "To make you and the learner more comfortable with the procedure and the equipment, let's try a practice list of ten words."

When the subject had successfully negotiated the practice trials a second list of words was presented and the experimenter said, "The way you will use this list is the same as for the first list, except that when you get to the bottom of the list, repeat it over again and continue giving shocks until the learner has learned all the pairs correctly. Start at 15 volts and give the subject one higher shock step for each incorrect response."

Under most conditions the experiment proper would commence following this statement. However, under one condition, the experimenter absent, additional instructions were presented at this point. The experimenter said, "It is necessary that I leave the room to monitor some subjects in another experiment down the hall. While I cannot be here, I will be in constant communication with you via this intercom. The intercom will be open at all times so I can follow your progress. If you have any questions direct them to me, not the learner." A similar communication was given to the

stooge in the presence of the subject. Following that the experimenter left and proceeded to room C, whereby means of the intercom he instructed the subject to begin.

Not only were the stooges responses to the paired associates task rehearsed and standardized, but so also were his responses to the "pain of the shock." The stooge's reactions became increasingly demonstrative and pained with the increasing voltage. The various reactions of the stooge and the level of the shock at which they were initiated is as follows:

15 volts	no reaction by the stooge
30 volts	no reaction by the stooge.
45 volts	no reaction by the stooge.
60 volts	no reaction by the stooge.
75 volts	silent grunt.
90 volts	louder grunt.
105 volts	louder grunt.
120 volts	(shouted) "The shocks are becoming painful."
135 volts	painful groan.
150 volts	"Get me out of here. I won't be in the experiment anymore. I refuse to go on."
165 volts	same as 150 volts, except more intensity.
180 volts	"I can't stand the pain."
195 volts	"Let me out."
210 volts	"I can't stand the pain. Please stop."
225 volts	"I can't go on, let me out."
240 volts	"Please, this really hurts." (Pleading)
255 volts	"I can't stand the pain. You've got to let me out."
270 volts	"Ohhh." (agonized scream)
285 volts	"Ohhhhh" (an even louder agonized scream)
300 volts	"I refuse to give any more responses. I can't go on. I can't participate in the experiment any longer." (desperate)
315 volts	(pounds on wall) "I will no longer participate."
330 volts	"I can't go on." (weak, agonized scream)

345 volts	No longer responds, shrieks in agony.
360 volts	No longer responds, shrieks in agony.
375 volts	No longer responds, shrieks in agony.
390 volts	No longer responds at all.
405 volts	No longer responds at all.
420 volts	No longer responds at all.
435 volts	No longer responds at all.
450 volts	No longer responds at all.

During the course of the practice, as well as the experimental run, the experimenter had several standardized interventions and responses that he might use in relation to the subject. If the subject hesitated or refused to administer a shock, four prods were used. These prods were used in sequence and with each new episode of resistance, the sequence was begun anew. If the subject was able to fend off all four prods and was unwilling to continue, the experimenter who interacted in a firm, serious, businesslike manner, terminated the study. The four prods employed were as follows:

(1) Please continue or please go on.

(2) The experiment requires that you go on.

(3) It is essential that you go on.

(4) You have no other choice, you must go on.

Additionally, as the result of some more or less typically asked questions, the experimenter maintained some stock replies. When the subject inquired as to the injury caused to the stooge by the shocks, the experimenter replied, "Although the shocks are painful, they do not cause any permanent tissue damage, so please go on." Further, if the subject questioned the stooge's willingness to go on, the ex-

perimenter said, "Whether the learner likes it or not, you must go on until he has learned all the pairs. Please go on." It was quite conceivable that in conjunction with these standardized responses to questions, one or more prods might also be employed.

After the completion of the experiment, subjects were given an eleven question form (PEQ) to tap their emotions and impressions of what they had experienced (see Appendix A). These inquiries represented a list on which any given item was responded to from Not at All to Extremely. Once the subject answered these questions, a debriefing session was held. The purpose of this interview was to answer questions about the subject's performance, his reactions, his feelings, and his various rationale for doing what he did. Utilized in this process was raw material not only from the post experimental questionnaire, but from the form employed to record the subject's performance, and behavioral observations made by the experimenter.

Subsequently, a friendly reconciliation between the subject and stooge was held, and the purpose of the experiment was explained. Any questions of the subject were answered at this time. The subject was thanked for being in the experiment. If he requested, he was told a copy of a report summarizing the results of the experiment would be sent to him if he would leave his address. Also, subjects were encouraged not to discuss the experiment with anyone and the

value of non-exposure to potential subjects was pointed out.

Since the use of experimenter pressure represented a major independent variable in this research, this pilot study afforded an opportunity to test and assess various techniques of creating experimenter pressure. Suggestions for variations were generated by Milgram (1965) who concluded from his research that the experimenter imposes increasingly greater pressure on the subject, with increasing immediacy and psychological closeness to the subject.

Three conditions were tested. It was believed that these three while representing increasing variations in psychological closeness of the experimenter would present corresponding increments in the experimenter pressure. The three conditions utilized were: (1) High Pressure, (2) Low Pressure - Friendly, and (3) Low Pressure - Remote.

In the High Pressure condition the experimenter wore a white lab coat and conducted himself in a very business-like manner. The experimenter was serious throughout the experiment and characteristically appeared somewhat cool and aloof. No effort was made to demonstrate his more usual human qualities. He was involved in running an experiment, and this appeared to be his major preoccupation, with little or no apparent concern shown for the participants.

In the Low Pressure - Friendly atmosphere, an entirely different image of the experimenter was created. He wore bermuda shorts, sandals, and a work shirt, clothing quite

popular with students during the summer. No lab coat was worn. The experimenter's manner was friendly and spontaneous. He smiled and appeared to be more humane than in the first condition. He was warm and conveyed a warm, rather than sterile experimental atmosphere. Instructions in this condition were more of requests, where in the first condition they were more of demands. Nevertheless, the content of the communications were identical in these two conditions as well as the following one.

In the final or Low Pressure - Remote condition, not the experimenter's demeanor, but his distance from the subject was modified. The experimenter was clothed and behaved in the same manner as in the High Pressure condition. The only difference was that in the Low Pressure - Remote condition, the experimenter left the room (A) and proceeded to room C following the practice trial and the presentation of instructions to the experiment proper.

An analysis of the data revealed some marked differences in the type of pressure contributed by variations in experimenter immediacy. (see Table I). These differences were reflected by levels of shock, in volts, administered by the subjects. Basically, there were no differences between the High Pressure and the Low Pressure - Friendly groups. Their means were identical. In both groups the subjects utilized the maximum voltage available (Step 40). It was assumed that since most people have an internalized norm not

TABLE 1

MEAN AND INDIVIDUAL DIFFERENCES IN MAXIMUM VOLTAGE ADMINISTERED UNDER THREE CONDITIONS OF EXPERIMENTER PRESSURE

Subject	High Pressure	Low Pressure-Friendly	Low Pressure-Remote
S^1	450	450	180
S^2	450	450	450
S^3	Practice	450	150
S^4	450	450	270
S^5	Practice	Practice	Practice
S^6	450	---	Practice
$\bar{X}$	450^1	450^1	255^1

[1]Subjects terminating in the practice session were eliminated since they were not exposed to differences in pressure, those differences being administered in the experiment proper.

to harm others, the influence encouraging the subjects to shock was the impetus provided by the experimenter (the pressure). That is, in a group of random subjects, it was the assumption of this investigator that subjects who shock more do so as a result of the experimenter pressure to do so or their inability to avoid the effects of this pressure. Subjects who don't shock as much either have a greater ability to fend off this pressure or have mechanisms to reduce the meaningfulness of this influence attempt on their behavior. Furthermore, the data appeared to suggest that the experimental atmosphere or the experimenter demeanor wasn't critical. What was of more importance was the physical proximity of the experimenter to the subject. In the Low Pressure - Remote condition, subjects utilized only moderate voltage (Step 25). This was 15 steps (shock levels) lower than the average of the other two groups. This was taken as evidence that less pressure is exerted on the subjects by the experimenter, as demonstrated by shocking behavior (level of shocks administered), when the experimenter is remote as compared to when he is close.

Based on these findings, two experimenter pressure conditions were selected for the subsequent investigation. These two conditions were High Pressure and Low Pressure - Remote. It was believed that based on this research, as well as the work of Milgram, that these two conditions represented significantly different amounts of pressure being placed on the naive subject by the experimenter.

This pilot study also provided a means by which to study the suitability of role playing as a substitute for the deception. As was pointed out earlier, serious ethical and methodological criticisms of deception paradigms had dictated the development of new techniques. The type of role playing utilized here, the forewarning variant, has been previously used as an adequate replacement for deception. In this pilot, forewarning proved to be the most reasonable substitute for deception based on the population used. This sample of subjects was uninformed regarding the Milgram research (based on information from earlier questionnaires as well as confirming questions following the experiment). Had the subjects been aware of the Milgram paradigm a technique that assumed prior knowledge would have been employed (pre-briefing).

As a result of information based on behavioral observations, self reports, questionnaires, and post experimental debriefing, it became apparent that the subjects became absorbed in the realism of the dilemmas created. All of the subjects reported that they felt the stooge was being shocked and one even refused to administer any shocks. Five subjects terminated the experiment during the practice trial and expressed serious concern for the welfare of the stooge. Virtually all of the subjects demonstrated considerable anxiety , especially while using the shock generator. This was quite comparable to Milgram's subjects in that there was

much finger and foot tapping, sweating, speech difficulties, as well as a number of other individualistic displays of anxiety. This was in sharp distinction to the relief expressed by almost all of the subjects when they were informed the stooge had actually not been shocked.

It would appear from the results of the pilot study that role playing represents a viable alternative to deception techniques. Furthermore, while the essential realism of the deceptive methodologies is maintained, the ethical pitfalls are overcome.

Additional Instruments

Beside the questionnaires and techniques employed to operationalize the independent and dependent variables, a number of additional instruments were used to control the factors that might possibly prove useful as explanatory tools. The following provides a description of these various additional instruments as well as their functions.

1) State Trait Anxiety Inventory (STAI)

Both as a result of the work of Milgram (1963, 1965) and the pilot study conducted in relation to this research, it became apparent that the Milgram paradigm, either through deception or role playing, generates considerable anxiety. This was not only recognized through behavioral observation of subjects but by verbal reports as well as information

gathered from questionnaires. Consequently, the necessity for measuring this important factor was clear.

Available in the research literature were numerous tests of anxiety. Nevertheless, several features inherent in the STAI made it the instrument of choice. In the first place, the Inventory was standardized on a similar population to that being studied in the present research, and these norms were available. Secondly, the instrument was easily administered and quickly completed without any loss of reliability or validity. This was of considerable importance in that the STAI had to be quickly administered following the behavioral task, to tap the subject's reactions, and at that particular time it made up just one of a battery of tests. The third and probably the most significant reason for choosing this instrument was the type of anxiety tapped. Most instruments assess for ongoing, situational anxiety, this too the STAI did. However, additionally it contained a second scale to assess for generalized anxiety, that level of anxiety at which, regardless of the present circumstances, the subject typically functions. This was a critical feature since the subjects had just completed what had proved to be an anxiety producing situation. Thereby, using the Trait Scale the investigator would have a baseline figure for each subject with which to compare his State anxiety.

The State-Trait Anxiety Inventory developed by Spielberger, Gorsuch, and Lushene (1969) is comprised of separate

self report scales for measuring two distinct anxiety concepts: State Anxiety (A-State) and Trait Anxiety (A-Trait). Although originally developed as a research instrument for investigating anxiety phenomenon in non-psychiatrically disturbed adults, it has also been found useful in the measurement of anxiety in high school students, neuropsychiatric, medical, and surgical patients.

The STAI A-Trait consists of 20 statements that ask people to describe how they generally feel. The A-State scale also consists of 20 statements, but the instructions require subjects to indicate how they feel at a particular moment in time.

The two types of anxiety are conceptualized quite differently. State anxiety (A-State) is viewed as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity. A-States can vary in intensity and fluctuate over time. Trait anxiety (A-Trait) refers to relatively stable, individual differences in anxiety proneness; that is, to differences between people and the tendency to respond to situations perceived as threatening with elevations in A-State intensity.

The instrument is composed of 40 items, 20 trait on one side and 20 state on the other. By blackening the space a subject indicates for a given statement (1) Not at all, (2) Somewhat, (3) Moderately so, and (4) Very much so for

the A-State scale; and (1) Almost never, (2) Sometimes, (3) Often, and (4) Almost always for the A-Trait scale. Each item can be scored from one to four with scores ranging from 00 through 80 for each of the two scales. A scoring key is provided with each packet of protocols.

Test-retest reliability data were reported by Spielberger on the basis of a normative sample of undergraduate students. Various subgroups of students were retested after periods of one hour, 20 days, and 104 days. The students retested after one hour were exposed to, in succession, a brief period of relaxation training, a difficult I.Q. test and a film that depicted accidents resulting in serious injury or death during the test-retest interval. The reliability coefficient of the A-Trait scale range from .73 to .86. However, the stability coefficient for the A-State scale indicated these correlations were substantially below the corresponding values for the A-Trait scale, they ranged from .16 to .54. However, the finding that A-State stability coefficients were relatively low was not unanticipated because a valid measure of A-State would be expected to reflect the influences of unique situational factors that existed at the time of testing whereas the A-Trait would not.

Evidence of the construct validity of the STAI A-Trait was obtained by correlations with the IPAT Anxiety Scale (Cattell and Scheier, 1963), the Taylor Manifest Anxiety Scale (TMAS, 1953) and the Zuckerman (1960) Affect

Adjective Checklist (AACL). These results were obtained from comparisons with undergraduate students. For undergraduate males, the following correlations with the STAI were found: IPAT (.76), TMAS (.79), and AACL (.58). Spielberger concluded in relation to the IPAT, TMAS, and STAI, that, "Since the intercorrelations among these scales approach the reliability of the individual scales, it would seem reasonable to conclude that three scales can be considered as alternative measures of A-Trait anxiety."

Evidence bearing on the construct validity of the A-State scale was derived from a sample of 332 undergraduate males at Florida State University. The subjects were given the A-State scale with the following instructions, "Indicate how you feel right now, that is, at this moment." This was the norm condition. Subsequently, they were asked to respond to how they believed they would feel, "just prior to a final exam in an important course" (exam condition). The mean score for the A-State scale was considerably higher in the exam condition than in the norm condition. Also, all but one of the items significantly discriminated between these two conditions for the subjects. Other studies have been carried out that report similar findings in relation to the construct validity of the A-State scale.

2) Post Experimental Questionnaire

The Post Experimental Questionnaire (PEQ) was a twelve item inquiry that represented a refinement of the eleven

item (PEQ) used in the pilot work. On this form the subject indicated his position on any one of the items ranging along a seven point scale from Not At All to Very Much. The objective of this instrument was to examine the triangular relationship between the subject, the experimenter, and the victim. Approximately five to eight minutes was required to complete this form. A final inquiry was added after the pilot study. Subjects were asked about their previous exposure to Milgram data. They indicated either none, lecture or discussion of the topic, or having seen the film.

3) Kohlberg PEQ

Another instrument utilized in this investigation was developed by Kohlberg solely for this research effort. The function of this questionnaire was to assess the bases for moral behavior as well as the moral conflicts developed by the Milgram paradigm. The inquiries which were of an "open ended" nature sought answers to questions regarding the rights of the victim, obligations of the naive subject to the experimenter, and the moral consequences of shocking another person. The format of this questionnaire was similar to that used in Kohlberg's Moral Dilemmas.

In addition to providing considerable raw data to the researcher on the relation of the moral underpinnings to moral behavior, and the determinants of behavior, it also provided a source of data for future research, suggested by Kohlberg. This would involve the study of the relationship

between the pretest (the Moral Dilemmas), a behavioral task (the Milgram paradigm), and a post experimental task (Kohlberg's PEQ). Besides the obvious value of this type of research, both the pretest and post test would be scorable under the Kohlberg system. This would be an avenue to be explored in the future.

4) Locus of Control

One of the most important factors, arising from the Milgram paradigm, that has remained essentially unstudied is the area of responsibility attribution. Loosely defined, responsibility attribution would be the degree to which individuals view the determinants of their behavior to be attributable to themselves or emanating from some outside source. No scale of responsibility attribution has yet been devised, however, one scale, that was used in this research, did provide some promising possibilities. That was Rotter's Locus of Control (1966).

Rotter developed from social learning theory a concept of internal-external control of reinforcement which describes the degree to which an individual believes that reinforcements are contingent upon his own behavior. Internal control refers to individuals who believe that reinforcements are contingent upon their own behavior, capacities, or attributes. External control refers to individuals who believe that reinforcements are not under their

personal control, but rather are under the control of powerful others, luck, chance, fate, etc. Thus, depending on his past reinforcement experience, a person will have developed a consistent attitude toward either an internal or external locus as the source of reinforcement. These terms, internal or external locus of control should be maintained as separate and distinct concepts especially in relation to internal and external moral orientation.

The Rotter Locus of Control Scale is a 29 item, forced choice test including six filler items intended to make somewhat more ambiguous the purpose of the test. The score on the scale is the total number of external choices. Scores can theoretically range from 0 to 23.

A number of studies have been carried out to assess the reliability of this instrument. Internal consistency estimates are relatively stable and run from .65 to .79. Rotter (1966) pointed out that while these estimates are only moderately high for a scale of this length, it should be noted that the items aren't arranged in a difficulty hierarchy, but are samples of attitudes in a wide variety of different situations. The test is an additive one and the items aren't comparable. As a result Rotter stated that it was not totally unexpected that split half or matched half reliability tends to underestimate the internal consistency (.49 to .78). However, test-retest after one month was generally higher (.60 to .78).

5) Demographic Forms

In order to control for adequate representation in the sample, background and demographic variables were obtained through a questionnaire. This was used to enhance the criteria employed in the final selection procedures for subjects.

The thirteen pieces of background data sought in the questionnaire were derived from a format developed by Harburg in his doctoral thesis. Information that either was assumed to be relevant or potentially relevant was collected. The items were phrased in such a way that most responses were multiple choice and all were easily codable for later analysis. The information sought pertained to parent's education, social economic status, religion, political affiliation, etc.

Final Selection of Subjects

The population from which the final selection of subjects was made was undergraduate students from the University of Michigan. Several factors prompted this decision. In the first place, as the pilot study demonstrated, the largest percentage of internal moral oriented subjects was determined to be from the University of Michigan sample. This proved to be a key factor, because it was this group of subjects that had provided some difficulty in being located. Choosing the population with the greatest number of these subjects had an obvious advantage. Secondly, the University

of Michigan offered the largest subject pool within a reasonable distance. The pool sponsored by the Psychology Department contained approximately 6000 subject hours in it. This far exceeded the size of any other population in the surrounding area. This size took on special significance because the investigation would require approximately 1000 subject hours. Most other populations either could not provide this number or were not willing to let this research effort monopolize their pools. Consequently, the University of Michigan pool provided accessibility. Another factor encouraging this choice was that by using this population of college students, comparability to other studies using similar populations could be maintained. This proved to be a rather important consideration, especially in relation to the many techniques and instruments in the study that had either been standardized or used primarily with similar types of populations. While other populations met one or maybe two of these conditions, taken together, all of these criteria were met only by the University of Michigan sample.

The subject pool employed came from the Introductory Psychology classes (Psychology 100, 101, 190, and 191). 296 subjects initially made up the population for this experiment. Only Caucasian, undergraduate, male students were employed. No effort was made to control for intelligence in this population, since it was believed to be a preselected

factor. It was felt that intelligence would not be a critical element in this research, because it had already been controlled in the sample by the high academic standards employed for the selection of the students at the University of Michigan. Individuals who didn't meet these criteria were returned to the subject pool and replacements requested.

The rationale for focusing on introductory students was to control for exposure to the Milgram paradigm. Typically, most students have their initial exposure to Milgram in introductory psychology classes and it was the plan of this research to delay that exposure until the completion of this investigation. That was critical because one of the assumptions of the forewarning role playing variant was that of limited information to the naive subject before the experimental manipulation. Therefore, if the students were exposed to the Milgram research, either through class discussion, or the showing of the movie, the use of this role playing technique would be invalid.

In order to avert any problems in this area, this investigator attended orientation meetings for Psychology 100 and 101 teaching fellows. At these meetings, the investigator outlined his research area, as well as his specific problems. Further, the researcher issued requests for aid. Approximately half of the teaching fellows agreed not to show the Milgram film or discuss the topic to the class pending the completion of the research. It was from these

classes that subjects were drawn.

Final Experimental Procedure

Once having obtained the approximately 300 subject cards, subjects were called by the experimenter and assigned to one of five different pretesting sessions. These sessions were monitored by colleagues of the experimenter. At no time during the pretesting phase did the subjects meet the experimenter. During the sessions three instruments were administered. The first, Kohlberg's Moral Dilemmas, Form B employed during the pilot work was replaced by a modified Kohlberg Moral Dilemmas, Form A. This change was instituted at the request of Professor Kohlberg, and involved making the form even more suitable to the population being studied as well as easier to score. Kohlberg's changes involved deleting a story or two, and adding several others from other forms. Also, several inquiries on the form were dropped as not being necessary for this particular group.

Also administered was the demographic questionnaire alluded to earlier. Additionally used at that time was the Rotter Locus of Control Scale, that also asked some background information on its face sheet. It was possible through this information to detect the presence in the sample of some subjects who did not fit the selection criteria (two white females, 29 blacks, 8 foreign students).

Following the completion of the five pretesting sessions, the research associates recorded each name from

each protocol and put it in a notebook with a corresponding number. Subsequently, stickers with numbers were placed over the names of the subjects to insure that the experimenter would be blinded as to the identity of the subjects and their eventual moral orientation scores. Once having completed this, the experimenter proceeded to Kohlberg's Moral Education and Research Foundation, in the Laboratory of Human Development at Harvard University where the protocols were scored. Approximately 270 protocols were taken, all except a few were scored. Of that total number of protocols, ten were set aside and scored by each of the coders. The coding was accomplished in terms of stage designation. That is, each subject was assigned a score as to which stage his moral reasoning represented. The coders agreed on 80 per cent of the protocols. The two on which there was some disagreement resulted not from substance, but from emphasis. Furthermore, on the two protocols where there was some disagreement, the scores were not more than one stage apart. These researchers, following their work, recorded in the notebook, the score of each subject next to his name and number. None of this information was exposed to the experimenter. That is, he was not aware of the names, numbers, and scores, but only of the numbers and scores.

Subsequently, subjects were assigned to one of two groups. Either a subject was an internal or an external in moral orientation. Post conventionals (stage 5 and 6) com-

prised the former and conventionals (stage 3 and 4) the latter. It was hoped to obtain 40 subjects for each of the two conditions. There were 38 post conventional subjects, most of which were stage 5, in moral reasoning. All of these subjects were planned for use in the investigation. There were many more conventional subjects than would be needed for the research. Consequently, only those most representative of their stage of thinking were used. Furthermore, Kohlberg suggested breaking this conventional group evenly between stages 3 and 4 which would allow for an even more detailed analysis. This idea was employed by selecting 20 each of the most representative stage 3's and stage 4's. While most of the surplus subjects were returned to the subject pool, many were kept and maintained as backup subjects contingent upon dropouts, experimental problems, etc. Each of the groups in turn were subdivided as to whether they would receive high or low experimenter pressure. The post conventional subjects were randomly assigned to two pressure conditions, while 50 per cent of the stage 3 conventional subjects and 50 per cent of the stage 4 conventional subjects were assigned to each of the two pressure conditions. Consequently, there were four groups and the number of subjects in each group were as follows: External Moral Orientation - High Pressure (20), External Moral Orientation - Low Pressure (20), Internal Moral Orientation - High Pressure (19), and Internal Moral Orientation - Low Pressure (19).

A research associate called the subjects and scheduled them for times in the behavioral task that were congruent with the schedules of the experimenter and the stooge. The only information provided to the experimenter was that which he was required to know. That was, the subject's name and the experimenter pressure to be used with each subject (high or low). At no time was the experimenter informed of the subject's moral orientation. This was not learned until the termination of the entire study.

The behavioral task (Milgram Paradigm) was essentially carried out as the pilot had been. Only the differences in the two formats will be reported here. As noted earlier, the major investigation was carried out at the University of Michigan. However, just as in the earlier pilot a "U" shaped research area was also employed and for the same reasons. Three rooms, labeled A, B, and C were used and carried out the same functions as those rooms which were designated earlier.

In the final University of Michigan study only two of the three variants of experimenter pressure were employed. These two, referred to earlier as High Pressure and Low Pressure - Remote represented the two most extreme pressure conditions as determined by Milgram's work (1965) and the pilot study. The third condition in the pilot study, Low Pressure - Friendly wasn't significantly different from the High Pressure condition to warrant its use, so it was

deleted from the Michigan study.

One of the problems arising prior to the initiation of the major investigation was a realization of the prior exposure to the Milgram experiment by a large number of subjects. Despite the compliance of teaching fellows in refraining from showing the movie or discussing the research, it soon became apparent to this investigator that many subjects were aware of the Milgram paradigm. How could this be? By controlling the showing of the movie and the teaching fellows agreement not to discuss this research, hadn't the major avenues of exposure been blocked?

The answer to that question was apparently no. Subjects, it was found out earlier, had been exposed to the Milgram research in many ways. The following were of the highest frequency: (1) Some subjects viewed the film in high school. (2) Some subjects had discussed the film and/or research with friends or in class. (3) Some subjects had seen the movie in another class (some took the other introductory psychology course earlier). Finally, (4) some had read about the research either on their own or assigned by another teacher. Clearly, this prior exposure violates an assumption of the forewarning variant of role playing. As a result, the prebriefing variant of role playing was substituted in the final experiment for the forewarning variant.

There were several reasons why prebriefing was chosen

and provided a suitable alternative to forewarning. In the first place, as noted above, the assumption of no prior knowledge of forewarning was violated. This was not a problem for the prebriefing variant because with it the subject is informed about all of the experimental manipulations and the real purpose of the research. Secondly, it had been demonstrated in earlier research (Willis and Willis, 1970; Horowitz and Rothschild, 1970) that prebriefing by itself was an effective substitute for deception. This was reaffirmed by the pilot study in which a subject, unknown to the experimenter, had previous exposure to Milgram, but operated during the behavioral task identically to the subjects with the forewarning format (no previous exposure). These factors taken together support the utilization of prebriefing.

Further, it was necessary to utilize this particular population, the University of Michigan sample, despite many subjects' acquaintance with the Milgram research for the following reasons:

(1) It was this sample that provided the largest proportion of internal moral oriented subjects, and that was only slightly above 25 per cent. This would suggest that at least four times as many subjects as needed for the internal condition would have to be screened. This would be even higher for another population.

(2) This subject pool provided the type of subjects that maximized the comparability of this study to others in the field. Furthermore, most of the instruments and questionnaires employed in this research had either been standardized or predominantly used with similar populations.

(3) In relation to the demographic variables and the major characteristics under investigation, this particular population provided subjects that were most suitable for this study.

(4) Finally, in relation to the various samples examined, it was the University of Michigan subjects that, more than the other, satisfied virtually all the criteria of the investigation. There was not another population, that the investigator was aware of, within reasonable geographic limitations, that could serve as an adequate substitute. In short, this was the sample of choice.

In summary the prebriefing variant appeared to be both a logical and adequate substitute for not only deception, but forewarning as well. Furthermore, it provided a means by which to investigate a population, that provided the most desirable characteristics for this research endeavor.

Now that the rationale for employing prebriefing have been put forth, a description of the technique and changes in the experiment will be presented. The forewarning condition, usually presented after the naive subject and stooge entered room A and given before any other instructions, was deleted in the final procedure. It was simply removed as a step and the remainder of the experiment was carried out as in the pilot except for the insertion of the prebriefing instructions. These instructions presented immediately after the naive subject and experimenter returned to room A after the experimenter had strapped the electrodes on the stooge. At this time, the experimenter stated,

> At this time, allow me to inform you about the nature and purposes of this experiment. In the first place, it is not a learning experiment. What we are

> studying is how well the subject (you) can play the role of following instructions of the experimenter (me). Secondly, the learner in the next room is my confederate. He is receiving no shock, because none is being delivered. The real purpose of this experiment is to see how well you can play a role.
>
> Now assume that I had not explained the deception to you. You would be like a naive subject. I will read you the exact instructions presented to actual naive subjects in other conditions of the experiment. Your job is to act as if you were one of those naive subjects in the other experimental situation. It is very important you take this role seriously. Act as if you didn't have any prior knowledge of the experiment as I have just given to you.

Following that the experimenter asked, "Do you have any questions?" If the subject had any questions they were answered and the experiment continued.

After the completion of the experiment three questionnaires, the Post Experimental Questionnaire (PEQ), the State Trait Anxiety Inventory (STAI) and the Kohlberg Post Experimental Questionnaire were administered. Subsequently, a debriefing session was held by the experimenter and the naive subject. This in turn was followed by an amicable reunion of the subject and the stooge. During this period of time any questions raised by the subject were answered, he was given a handout detailing the experiment, its purposes and an explanation, and he was given the telephone number of the experimenter should any questions arise later. Finally, the subject was told that a final report would be sent to him, if desired, following the completion and write up of this investigation. Typically, the behavioral task and post experimental session involved 50 to 60 minutes, and the pretest screening session involved approximately two hours.

CHAPTER III

RESULTS

This chapter will present the results bearing on the hypotheses outlined in Chapter I. The disucssion of these results will be presented in Chapter IV.

Statistical Tests

Tests of Significance and Measures of Association

The data analysis plan utilized in this research basically involved a two pronged approach. The initial analysis centered around the major hypotheses, examining the relationship between moral orientation and experimenter pressure, the independent variables, and performance on the behavioral task, the dependent variable. The test selected to scrutinize the relationship between these three variables as well as their interaction was a two-way analysis of variance. In the employment of this technique, the assumptions associated with the analysis of variance were met.

The second level of the analysis plan involved the assessment of the more specific comparisons in the data suggested by the secondary hypotheses. This aspect of the analysis would permit an elaboration upon and explanation of the more general findings associated with the testing of the

major hypotheses. The statistic employed in these comparisons was the chi square. In order to utilize this technique and meet its assumptions, it was necessary to categorize the data on each variable compared into two or three levels. These were represented typically as high and low or high, medium, and low. This lumping procedure was necessitated in order to provide a minimum expected frequency of five cases (or close to it) in each cell, one of the major criteria for the employment of chi square. Another guideline in the categorizing of the data, and equally important as the assumption of a minimum expected frequency, was the maintenance of psychological meaningfulness. That is, data were lumped together not solely to meet statistical rules, but also to convey the meaning associated with those data. Any combining of data that would have violated the assumption of minimum expected frequency or obscured the psychological meaning of the data as a result of that combination, was not considered.

In addition to analyzing the secondary hypotheses by the use of the chi square statistic, a measure of association was also employed. The correlation coefficient, the Pearson r, was utilized to assess the strength of association between each of the two variables upon which the chi square statistic was computed.

Major Hypotheses

1) Subjects with an internal moral orientation will shock another individual less than subjects with an external

moral orientation.

The univariate one-way analysis of variance (see Table 2) comparing strata 1 and 2 with strata 3 and 4 demonstrated no row or moral orientation effects at the .05 level. Thus, the null hypotheses of no row effects was retained. This test resulted from the comparison of the highest level of shock administered to the stooge by the subject in relation to that subject's moral orientation (internal or external) with experimenter pressure held constant. On the basis of that comparison, there were no statistically significant differences between the shocking behavior (determined in volts) of the internal moral oriented subjects and the external moral oriented subjects. That such a difference would prevail was suggested by the research literature on internalization as well as the work of Kohlberg (1958).

2) Subjects under high pressure will shock more than subjects under low pressure.

Essentially, this position suggested that while controlling for moral orientation, subjects experiencing greater experimenter pressure would tend to shock the stooge at higher levels than those subjects experiencing less experimenter pressure. This should be evident within both moral orientation conditions. This hypothesis stemmed mainly from the earlier work of Milgram (1965, 1967) who suggested that

TABLE 2

A UNIVARIATE ONE-WAY ANALYSIS OF VARIANCE OF MORAL ORIENTATION AND EXPERIMENTER PRESSURE

Source	DF	Sum of Squares	Mean Square	F-Stat	Significance
Between	3	619.14	206.38	1.0569	.3727 N.S.)
Within	74	14450.0	195.27		
Total	77	15069.0			
N = 78					

	Stratum	N	Mean	Variance	Standard Deviation
1.	Internal Moral Orientation Low Experimenter Pressure	19	28.316	206.34	14.365
2.	Internal Moral Orientation High Experimenter Pressure	19	21.947	193.16	13.898
3.	External Moral Orientation Low Experimenter Pressure	20	24.150	170.34	13.052
4.	External Moral Orientation High Experimenter Pressure	20	28.650	211.71	14.550

TABLE 2-Continued

Strata Contrasted	Contrast Observed	Predicted	T-Stat	Significance
1&2 vs. 3&4 Moral Orientation Effect	-2.5368	-0.0	-.40070	.6898 (N.S)
1&3 vs. 2&4 Experimenter Pressure Effect	1.8684	-0.0	.29512	.7687(N.S.)
1 vs 2, 3 vs 4 Interaction Effect	10.868	-0.0	1.7167	.0902(N.S.)*

*Significant at the .10 level.

as the psychological distance between the experimenter and the subject is decreased (or in this case the experimenter pressure heightened) the more willing the subject would be to comply with the demands of the experimenter and inflict higher intensities of shock upon the stooge then he would otherwise do if the psychological distance were increased (or in this case the experimenter pressure diminished).

An univariate analysis of variance (see Table 2) comparing and contrasting strata 1 and 3 with 2 and 4 to determine the column or experimenter pressure effects revealed no significant differences between the two groups. That is, when moral orientation was controlled for, there did not appear to be any significant differences in the level of shock administered by the subject to the stooge as a result of differences in experimenter pressure. Consequently, the null hypothesis of no column or experimenter pressure effects is retained.

3) Internal moral oriented subjects under high pressure will shock more than internal moral oriented subjects under low pressure. External moral oriented subjects with high pressure will shock more than external moral oriented subjects with low pressure.

While the two previous hypotheses have focused on the effects of either moral orientation or experimenter pressure, this hypothesis was concerned with their interaction. That is, within a moral orientation, what effect does experimenter pressure have? Based on the research of Kohlberg (1958, 1969), Milgram (1965, 1966), and those who have dealt with

internalization phenomenon, it would appear that increased pressure would have the effect of creating greater compliance with the experimenter's request. That is, subjects who have been designated as internally moral in orientation should shock the stooge at higher levels when placed under higher experimenter pressure than under low experimenter pressure. Based on this hypothesis the same could be said for subjects under the external moral orientation condition with similar changes in experimenter pressure. The one-way univariate analysis of variance (See Table 2) contrasting strata 1 with 2 as well as strata 3 with 4 for interaction effects of moral orientation and experimenter pressure produced no significant results at the .05 level. However, the null hypothesis could be rejected at the .10 level. That is, while the evidence was extremely limited, there did appear to be an interactive effect between moral orientation and experimenter pressure in the shocking behavior of subjects in this investigation.

Secondary Hypotheses

Having completed the analysis of the major hypotheses, an examination of the more specific, secondary hypotheses will be presented.

1) As pressure is increased, the subjects will shock more. Conversely, as pressure is decreased, the subjects will shock less.

In the previous analysis of the major hypotheses one type of pressure was considered, that was whether the experimenter utilized one of two atmospheres, a high or low pressure. At this point an examination of another type of pressure, potentially present under both experimental conditions will be presented. That is, the experimental prod. In the last chapter it will be remembered that the experimenter had the option of using four sequential, standardized prods if the subject balked or was unwilling to continue. It was conceptualized that these prods placed considerable pressure on the subject to continue (See Chapter II and Milgram, 1965).

At this point, the analysis of the interaction between experimenter prods and the shocking behavior of the subject will be examined in three areas. The first was the overall relation between presented prods and the delivery of shocks by the subject. This comprised the totality of the prods and the resultant effect on the subject's behavior toward the stooge. A second level of analysis involved the use of all experimenter prods in each of the four quarters of the experiment. Thus, the first quarter represented the lowest shocks administered and the fourth quarter represented the highest level of shocks administered. It was the purpose of this quadrant analysis to aid in more specifically explaining the total interaction between experimenter prods and shocking behavior. The final aspect of this analysis

comprised an examination of the effect of each of the four types of prods on the shocking behavior of the subject, irrespective of when these prods were elicited.

It might prove useful at this point to mention some issues concerning the distribution of shocking scores for the subjects. In most of the analyses that follow, as well as for the testing of the major hypotheses, this was the dependent variable. The distribution of this variable had some rather notable characteristics. Primarily, it distributed over all subjects in a rather obvious, trimodal fashion. The three peaks corresponded to low, medium and high shock levels. Secondly, the distribution of subjects in these three groups was approximately proportionate, it was 1: 2: 3 in order from low to medium to high shock levels. In the subsequent analysis thought was given to combining these entities in order to produce groups with more nearly equal frequencies. However, this consideration was abandoned because it violated the obvious separate nature of these three entities and obscured the psychological meaning they conveyed by their trimodality. Hence, the advantages accruing to equal or nearly equal frequencies in groups appeared to be of considerably less priority than the maintenance of the psychological meaningfulness of the data.

In assessing the relationship between total prods used and shocks delivered, the chi square statistic was used. It was significant at the .001 level (See Table 3). The

analysis appeared to suggest that a U-shaped relationship existed between number of prods and shocks administered. That is, when low and high numbers of prods were employed, the subject typically administered shocks in the medium and high ranges, whereas when a moderate number of prods was employed subjects tended to predominately shock in the low ranges. An examination of the correlation coefficient between these two variables ($r = -.26$, significant at the .05 level) suggested that they were negatively related. In order to determine which of these two distributions better reflected the data, an analysis of prods, both by quadrant of use and type of prod was undertaken.

The apparent discrepancy between distributions alluded to above became clarified upon an examination of the correlation coefficients between prod use in each quarter and shocking behavior. In the first quarter the use of prods and the presentation of shocks was highly, negatively related ($r = -.71$, significant at the .01; See Table 1, Appendix B for the chi square test). Moving into the second quarter this relation appeared to diminish, yet remained negative ($r = -.22$, N.S.; See Table 2, Appendix B for the chi square test). However, proceeding into the third quarter the relationship between prod use and utilization of shock becomes positive ($r = +.15$, N.S.; See Table 3, Appendix B for the chi square test). Finally, in the fourth quarter the relationship becomes positive and significant

TABLE 3

A CHI SQUARE ANALYSIS OF LEVEL OF SHOCK ADMINISTERED AND NUMBER OF EXPERIMENTER PRODS PRESENTED

	Level of Shock	Low	Medium	High
Total number of Prods	Totals	12	29	37
Low	25	0	2	23
Medium	25	12	7	6
High	28	0	20	8

Tests of Independence	Statistic	Significance	DF=4 N=78
Maximum Likelihood	57.494	.0000	
Chi-Square	56.027	.0000*	

*Significant beyond the .001 level.

(r = +.39, significant at the .01 level; See Table 4, Appendix B for the chi square test). It would appear from this analysis that the value of a prod was contingent upon the quarter in which it was introduced. That is, as the subject proceeded further into the experiment, more pressure was experienced from each ensuing prod. However, in the earlier stages of the task the effect of prods was reversed. Hence, by observing the effects of prods by quarter, it appeared that while prods initially have a negative valence, in relation to shocking behavior, this diminished, becoming positive, until finally it took on a positive valence at the end of the task.

Similarly, an analysis of the effect of each type of prod upon levels of shock administered was carried out. An overall picture of these relationships could be obtained by examining the correlation coefficients between the type of prod and the shock level administered. For prod #1 there was a small positive correlation (r = +.17, N.S.) to shock level administered (See Table 5, Appendix B for the chi square test). For prod #2 there was a moderate negative correlation (r = -.37, significant at the .001 level; See Table 6, Appendix B for the chi square test). With prod #3 the negative relationship to shock level administered was of an even greater magnitude (r = -.52, significant at the .001 level; See Table 7, Appendix B for the chi square test). Finally, for prod #4, the relationship to the shock

level administered appeared the greatest and most negative ($r = -.70$, significant at the .001 level; See Table 8, Appendix B for the chi square test). The data suggested that with increasing strength of the prod (from 1 through 4) the subject was increasingly unwilling to continue to shock the stooge. While the apparent potency of the demand made by the experimenter seemed to increase, the subject appeared to curtail his shocking of the stooge.

Taken together both the time (quarter of delivery of prod) and type (prod 1, 2, 3, or 4) helped in accounting for the earlier apparent discrepancy of total prods with shocks delivered. That is, in order to account for the total prod relationship to shock delivery an examination must be made of these two important properties of the prod. That is, the time of delivery (in which quarter) and the type of prod (which of the four). A more elaborate discussion of this issue will be taken up in the following chapter. Suffice to state at this time that the relationship suggested by the hypothesis, that as pressure is increased, the subjects will shock more, was not supported. On the contrary, data were presented to support a negative relationship between total prods and level of shock administered.

2) As the pressure increases, the subjects will be more anxious. Conversely, as the pressure decreases the subjects will be less anxious.

Since both the variables of pressure and anxiety were

each represented during the course of the research in a number of ways, several different examinations of the data were made to assess if indeed a general trend relating pressure to anxiety in a positive manner could be ascertained.

One form of pressure examined was that placed on the subjects by the experimenter through his prods. This, in turn, was related to signs of anxiety manifested behaviorally during the task (leg, hand, and body movement) that were recorded during the session by the experimenter. This was accomplished by making a check mark on the Behavioral Rating Form in the appropriate location for each discrete act characterized as a behavioral manifestation of anxiety. The total number of anxiety indicators was the simple additions of these various markings. A chi square analysis (See Table 4) was carried out (significant at the .01 level) between these two variables ($r = +.14$, N.S.). The frequency table associated with that analysis provided some interesting findings. It demonstrated that when a low number of prods was utilized (low pressure) the subjects tended to manifest moderate to high anxiety. When a moderate number of prods was employed (medium pressure) the subjects tended to show very little anxiety. Finally, when a large number of prods were directed at a subject, he responded with moderate to high anxiety. This then suggested a U-shaped rather than a linear relation between pressure and anxiety. That is, when the pressure (prods) was either high or low, the subject man-

TABLE 4

A CHI SQUARE ANALYSIS OF BEHAVIORAL SIGNS OF ANXIETY AND THE TOTAL NUMBER OF EXPERIMENTER PRODS

	Number of signs of Anxiety	Low	Medium	High
Total Number of Prods	Totals	26	27	17
Low	23	5	10	8
Medium	24	16	6	8
High	23	5	11	7

Tests of Independence	Statistic	Significance	DF=4 N=70
Maximum Likelihood	14.556	.0057	
Chi-Square	14.288	.0064*	

*Significant at the .01 level.

ifested the most anxiety. However, when a moderate number of prods was employed, the subjects manifested few behavioral signs of anxiety. This then does not provide sufficient information in and of itself to either support or refute the above hypothesis.

Another way of conceptualizing pressure was pointed out earlier. That is, through experimenter pressure, whether the experimenter was present or absent. In a previous discussion (See Chapter III), it was pointed out that Milgram (1965) and this researcher in the pilot work, determined that experimenter presence provided relatively high pressure while his absence provided relatively low pressure. Pressure conceptualized in these terms could be compared with other indices of anxiety in order to determine the overall relationship between pressure and anxiety. With this in mind a chi square analysis (See Table 5) was carried out between experimenter pressure and behavioral signs of anxiety. Although the chi square was not significant, the correlation coefficient was ($r = +.43$, significant at the .01 level). This Pearson r suggested relatively strong support for increasing anxiety as manifested in behavioral terms as a consequence of increasing experimenter pressure.

Continuing the examination of experimenter pressure, other indices of anxiety were investigated. Following the task performance, the Post Experiment Questionnaire (PEQ) was administered. Contained in it were a number of items

TABLE 5

A CHI SQUARE ANALYSIS OF BEHAVIORAL SIGNS OF ANXIETY AND EXPERIMENTER PRESSURE

	Number of Signs of Anxiety	Low	Medium	High
Experimenter Pressure	Totals	26	27	17
Low	39	15	18	6
High	31	11	9	11

Tests of Independence	Statistic	Significance	DF=2	N=70
Maximum Likelihood	4.2523	.1193		
Chi-Square	4.2269	.1208 (N.S.)		

that could be rated on a seven point scale from Not At All to Extremely. In this group of items were two questions, associated with the subject's anxiety level, that were completed in a self report manner. There was considerable face validity in these items and in the discussion following the pilot work, it was determined that they seemed to reflect a subject's anxiety as corroborated by interviewing and his own behavioral manifestation of anxiety. Each item was compared for all subjects against experimenter pressure. The first pertained to the experiencing of any unusual reactions (either emotional or physiological) which were examined in their relationship to experimenter pressure by the chi square technique (See Table 6; $r = -.02$, N.S.). The second, assessed the amount of anxiety the subject experienced at the point in the experiment where he was the most anxious. This was compared to experimenter pressure with the chi square analysis (See Table 7; $r = +.03$, N.S.). Neither of these indices of anxiety was significantly related to experimenter pressure. These last two analyses carried out on this part of the data provided no support for the hypothesis under investigation.

In addition to comparing experimental pressure to behavioral manifestations of anxiety and a self report questionnaire about anxiety, experimental pressure was also related to a more subtle anxiety inventory (STAI). Through this inventory it was possible to assess the relationship

TABLE 6

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRESSURE AND EXPERIENCING OF UNUSUAL REACTIONS DURING THE EXPERIMENT

Experimenter Pressure		Low	High
Number of Unusual Reactions	Totals	39	39
Low	22	10	12
Medium	37	18	19
High	19	11	8

Tests of Independence	Statistic	Significance	DF=2 N=78
Maximum Likelihood	.68477	.7101	
Chi-Square	.68253	.7109 (N.S.)	

TABLE 7

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRESSURE AND THE GREATEST ANXIETY EXPERIENCED DURING TASK

	Experimenter Pressure	Low	High
Most Anxiety	Totals	39	39
Low	21	13	8
Medium	20	6	14
High	37	20	17

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	4.7368	.0936		
Chi-Square	4.6337	.0986 (N.S.)		

between experimental pressure and two different measures of anxiety, Spielberger's State and Trait Anxiety. A chi square analysis between experimenter pressure and State Anxiety (See Table 8; r = -.12, N.S.) and that same pressure and Trait Anxiety (See Table 9; r = -.04, N.S.) revealed no support for the hypothesis of increased pressure leading to increased anxiety.

Taken together the six statistical tests run, as outlined above, provided support in only one instance for the hypothesis. That is, as experimenter pressure was increased more behavioral signs of anxiety were manifested. This relation did not obtain when experimenter prods were related to behavioral indices or when experimenter pressure was related to paper and pencil measures of anxiety.

3) The more a subject shocks, the more anxious he will become. Conversely, the less a subject shocks, the less anxious he will become.

During his analysis of the experimental paradigm, Milgram (1967) posited that the subject was placed in a dilemma. Whether to violate an internalized norm not to harm others or to carry out the dictates of a supposedly legitimate authority figure. Due to the early socialization experiences, it was believed that failure to comply with either of these strong demands would result in anxiety. Nevertheless, it was suggested in this research (pilot work) that when an individual became involved in behaviors that

TABLE 8

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRESSURE AND STATE ANXIETY

Experimenter Pressure		Low	High
State Anxiety	Totals	39	38
Low	26	12	14
Medium	28	14	14
High	23	13	10

Tests of Independence	Statistic	Significance	DF=2	N=77
Maximum Likelihood	.53343	.7659		
Chi-Square	.53225	.7663 (N.S.)		

TABLE 9

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRESSURE AND TRAIT ANXIETY

Experimenter Pressure		Low	High
Trait Anxiety	Totals	39	38
Low	22	12	10
Medium	27	13	14
High	28	14	14

Tests of Independence	Statistic	Significance	DF=2	N=77
Maximum Likelihood	.20613	.9021		
Chi-Square	.20590	.9022 (N.S.)		

harmed others, considerable anxiety would be generated. In order to test out this hypothesis, the subject's shocking behavior was analyzed in relation to the anxiety generated. Anxiety was examined in terms of three variables, 1) behavioral manifestations, 2) self report technique, and 3) a more subtle anxiety inventory.

In the first instance behavioral signs of anxiety (foot movement, body movement, hand-arm movement, and clumsiness) were examined in relation to shocking behavior of a subject. A chi square analysis showed a significant interaction at the .001 level (See Table 10; $r = +.41$, significant at the .01 level). The analysis of the frequency table clearly portrayed a tendency for increased anxiety to accompany increased levels of shocking. Further, less anxiety was manifested when lower levels of shock were administered. An examination of the component scores making up the total signs of anxiety revealed considerable consistency across these subindices. A chi square analysis of level of shock administered and foot movement (See Table 9, Appendix B), and body movement (See Table 10, Appendix B), and hand movement (See Table 11, Appendix B), and clumsiness (See Table 12, Appendix B) revealed significant relationships varying from the .01 to the .05 level in the direction predicted. Further support was provided by an examination of the correlations between the various types of body movement and the level of shock administered. The findings for these

TABLE 10

A CHI SQUARE ANALYSIS OF LEVEL OF SHOCK ADMINISTERED AND BEHAVIORAL SIGNS OF ANXIETY MANIFESTATION

	Shock Level	Low	Medium	High
Signs of Anxiety	Totals	12	29	29
Low	26	11	9	6
Medium	27	1	13	13
High	17	0	7	10

Tests of Independence	Statistic	Significance	DF=4	N=70
Maximum Likelihood	21.296	.0003		
Chi-Square	19.599	.0006*		

*Significant beyond the .001 level.

four subindices were foot movement (r = +.34, significant at the .01 level); body movement (r = +.33, significant at the .01 level); hand movement (r =+.30; significant at the .05 level); and clumsiness (r = +.27, significant at the .05 level). In addition to the data supporting the hypothesis for total movement, as well as that for individual types of movement, additional corroborating evidence came from the time period in which the shock was administered and the accompanying anxiety experienced. There was a significant relationship between shock administered and the manifestation of anxiety regardless of the quarter of the experiment in which the shock was delivered. That is, while more anxiety was experienced typically at the higher shock levels, the subject could not escape the experiencing of anxiety (at reduced levels) at the lower levels of shock administration. The consistency of this finding was reflected in the various correlation coefficients relating the behavioral manifestations of anxiety with the shock employed across various quarters of the task. This was evidenced in the first quarter (r = +.36, significant at the .01 level), the second quarter (r = +.30, significant at the .05 level), the third quarter (r = +.35, significant at the .01 level), and the final quarter (r = +.36, significant at the .01 level). This in turn was followed up by a chi square analysis relating the variable of behavioral anxiety signs with the level of shock across the four quarters. These analyses

were reported in Appendix B, the first quarter (See Table 13), the second quarter, (See Table 14), the third quarter (See Table 15), and the final quarter (See Table 16). All of these relationships proved to be significant, as predicted, between the .05 and .001 level.

A second mode of assessing anxiety was through questions posed to the subject immediately following the behavioral task on the Post Experimental Questionnaire (PEQ). On these self report items the subject was to indicate on a scale from one to seven his endorsement or lack of it on a series of items. Two of these items dealt rather directly with the issue of anxiety. The first was to assess the degree to which the subject experienced any unusual reactions (perspiring, increased heart rate, more difficult breathing, etc.), while the second was aimed at determining the maximum level of anxiety experienced by the subject at the point in the experiment where he was the most anxious. These independent variables were compared with the level of shock administered. A chi square test revealed no significant interaction in the first case (See Table 11; $r = -.02$, N.S.) or in the second case (See Table 12; $r = +.12$, N.S.). That is, this data did not provide support for the hypothesis.

In still yet another instance anxiety was measured in terms of the subject's performance on a somewhat more subtle

TABLE 11

A CHI SQUARE ANALYSIS OF UNUSUAL REACTIONS EXPERIENCED AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Degree of Unusual Reaction	Totals	12	29	37
Low	22	3	7	12
Medium	37	6	16	15
High	19	3	6	10

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	1.4774	.8306		
Chi-Square	1.4721	.8316 (N.S.)		

TABLE 12

A CHI SQUARE ANALYSIS OF THE GREATEST ANXIETY EXPERIENCED IN THE EXPERIMENT AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Amount of Anxiety Experienced	Totals	12	29	37
Low	21	5	7	9
Medium	20	3	10	7
High	37	4	12	21

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	3.9619	.4112		
Chi-Square	4.0884	.3942 (N.S.)		

anxiety inventory. That is, anxiety was tapped in terms of the subject's performance on the State-Trait Anxiety Inventory. In this particular instance the subject's anxiety was conceptualized in terms of either State or Trait anxiety. For a more complete explanation of these terms, the reader is referred to Chapter II and Appendix A where a copy of the inventory is presented. A statistical analysis relating each of these two types of anxiety with the level of shock administered was accomplished. The chi square analysis of shock level and state anxiety (See Table 13, $r = +.19$, N.S.) and shock level and trait anxiety (See Table 14, $r = +.14$, N.S.) proved non-significant. In neither case was support sufficient to reject the null hypothesis. However the correlation with state anxiety did approach significance.

In summary then, no major support for the hypothesis relating anxiety and shock in a positive manner was found, when anxiety was defined in terms of paper and pencil measures, whether subtle or obvious. Nevertheless considerable evidence in support of the hypothesis was found when anxiety was conceptualized in terms of behavioral signs. Not only did that appear to be the case in terms of total behavioral signs of anxiety, but was also supported consistently on sub-analytic levels employing individual behavioral anxiety indicators as well as across all phases of the task situation.

TABLE 13

A CHI SQUARE ANALYSIS OF STATE ANXIETY AND LEVEL OF SHOCK ADMINISTERED

Shock Level	Low	Medium	High
Amount of State Anxiety	Totals	11	29	37
Low	26	5	11	10
Medium	28	4	8	16
High	23	2	10	11

Tests of Independence	Statistic	Significance	DF=4	N=77
Maximum Likelihood	2.9861	.5602		
Chi-Square	2.8976	.5751 (N.S.)		

TABLE 14

A CHI SQUARE ANALYSIS OF TRAIT ANXIETY AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Amount of Trait Anxiety	Totals	11	29	37
Low	22	6	6	10
Medium	27	4	9	14
High	28	1	14	13

Tests of Independence	Statistic	Significance	DF=4	N=77
Maximum Likelihood	7.2670	.1224		
Chi-Square	6.8766	.1426 (N.S.)		

4) The greater responsibility the subject takes for his own actions, the less he will shock. Conversely, the less responsibility the subject takes for his own actions, the more he will shock.

In Milgram's (1965) initial research on obedience he was somewhat surprised to find that subjects "shocked" the stooge at higher intensities and considerably more frequently than predicted by the panel of psychologists and psychiatrists from Yale University. In an effort to explain this phenomenon Milgram argued that many of the subjects proceeded to the unpredicted levels of shock administration because of the abdication of responsibility. That is, they could justify continuing to shock the stooge because it was "not up to me" but that they were simply following the orders of the experimenter. This maintained in Milgram's research as long as the experimenter was perceived as having legitimate authority. Further it was felt by the subject that the experimenter would stop the session if necessary or take the responsibility for any negative consequences. That is, individual responsibility was replaced by employing the experimenter as a reference group for that behavior. Further, subjects that tended to stop shocking at lower levels appeared to take more responsibility for their actions. It was expected that a similar phenomenon would occur in the present research.

One of the problems presented in this area was the measurement of responsibility taken. No single measure was

used, but three separate indices, 1) the locus of control, 2) the amount of deception experienced, and 3) the verbal responsibility for shocks administered were all employed.

The first measure was Rotter's Locus of Control Scale. Rotter employed his Locus of Control concept to determine whether the individual controls his sources of reinforcement (internal) or forces beyond his control his sources of reinforcement (external). It was hoped that through the use of this technique some light could be shed on whether the individual maintained (internal) or abdicated (external) his responsibility. The chi square test relating Locus of Control with level of shock administered (See Table 15; $r = -.04$, N.S.) proved non-significant and non-supportive of the hypothesis.

Another index of responsibility utilized was the degree to which the subject perceived himself as being deceived by the experimenter. In much of the psychological research conducted, subjects were suspicious of the experimenter's "true motives." This stemmed from the considerable deception research employed in the 1950's and 1960's. Subjects are now more sophisticated and skeptical of all psychological research, based on their knowledge of these earlier studies. This was particularly true of the paradigm employed in this research. It was believed that the more subjects felt themselves deceived, the less responsibility they would have to claim for the ensuing consequences.

TABLE 15

A CHI SQUARE ANALYSIS OF LOCUS OF CONTROL AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Locus of Control	Totals	12	29	37
Low E*	25	4	9	12
Medium E*	28	5	9	14
High E*	25	3	11	11

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	.92195	.9214		
Chi-Square	.91948	.9218 (N.S.)		

*E = External Locus of Control

That is, subjects felt themselves deceived as opposed to those who did not experience that feeling, had a means of accounting for their behavior in a socially acceptable manner. In short, they might say they were duped and would not have committed those acts if they were intially told the truth. This option would not be open to those who did not feel deceived and had no acceptable rationale other than complying with the request of the experimenter. Hence, an analysis of the relation between the subject's verbal report upon questioning that he felt deceived and his task performance was undertaken. The chi square technique produced no significant results (See Table 16). However, a correlation coefficient while small and non-significant ($r = -.10$), appeared in the negative direction consequently providing limited support for the hypothesis under investigation.

The third measure of responsibility was the verbal report of the subject at the time that the shock was administered. Typically, subjects used the same or nearly the same verbal report in the delivery of the shock across the task. This behavioral index ranged from subjects saying that it was required that the shock be delivered (attributing responsibility to the experimenter), to no verbal report (neutral), to indicating that the subject was taking the responsibility for his actions (attributing responsibility to self). It was possible to code all or mostly all the responses in terms of these three levels.

TABLE 16

A CHI SQUARE ANALYSIS OF DECEPTION EXPERIENCED (SUBJECTIVE) AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Felt Deceived	Totals	6	18	24
Yes	25	3	9	13
No	23	3	9	11

Tests of Independence	Statistic	Significance	DF=2	N=48
Maximum Likelihood	.83503 -1	.9591		
Chi-Square	.83478 -1	.9591 (N.S.)		

An analysis was conducted examining the relationship between this behavioral index of responsibility and the level of shock administered. While a chi square test proved not to be significant nor supportive of the hypothesis (See Table 17), other supporting data were uncovered. A correlation coefficient, although non-significant and small, was in the direction predicted by the hypothesis ($r = -.12$).

While the major support anticipated for this hypothesis was not found, trends in the direction predicted were noteworthy. Although the locus of control did not support the hypothesis under study, the findings from subject's perception of being deceived and the behavioral manifestations of responsibility attribution while limited and not significant did provide trends endorsing the position espoused by the hypothesis.

5) The more concern the subject shows for the person being shocked, the less he will shock. Conversely, the less concern the subject shows for the person being shocked, the more he will shock.

As in the testing of the previous hypothesis, with this analysis no single index was employed to determine the concern displayed by the subject for the stooge. A composite index made up of behavioral indices, a self evaluation rating scale from the Post Experimental Questionnaire (PEQ), and an item from Kohlberg's Post Experimental Questionnaire (PEQ) served as the independent variables to be

TABLE 17

A CHI SQUARE ANALYSIS OF BEHAVIORAL MANIFESTATION OF RESPONSIBILITY AND LEVEL OF SHOCK ADMINISTERED

Shock Level		Low	Medium	High
Behavioral Signs of Responsibility	Totals	5	24	32
Accepts Responsibility	19	1	6	12
Neutral	13	2	5	6
Abdicates Responsibility	29	2	13	14

Tests of Independence	Statistic	Significance	DF=4	N=61
Maximum Likelihood	2.0599	.7248		
Chi-Square	2.2039	.6983 (N.S.)		

gauged against the level of shock administered. One of the guiding assumptions of this research endeavor suggested that the more a subject shocks another, the more anxious he becomes. A direct manifestation of this anxiety involves a concern about the welfare of the stooge. Further, an individual that demonstrated this concern, it was felt, is less likely to continue shocking than a subject who does not show it.

Behaviorally, subjects were able to manifest concern about the stooge by asking questions in basically two relatively well delineated areas. These questions overall constituted an inquiry into the well being of the subject and the necessity of further subjecting him to these traumatic conditions. A statistical examination of the data concerning questions asked about the stooge relative to the level of shock administered, employing the chi square technique was not significant (See Table 18). Nevertheless, the relationship approached significance in the opposite direction of that predicted by the hypothesis. Examining the frequency table it was demonstrated that of those who asked few or no questions concerning the stooge, 60 per cent tended to shock in the low or medium shock ranges. On the other hand, those who asked most of the questions concerning the stooge tended to shock in the high range (64 per cent). This indicated a situation contrary to the hypothesis. That is, subjects who shocked at the higher levels tended to demonstrate more

TABLE 18

A CHI SQUARE ANALYSIS OF QUESTIONS ASKED ABOUT THE STOOGE AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Questions	Totals	12	29	37
Low	53	9	23	21
High	25	3	6	16

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	4.1713	.1242		
Chi-Square	4.1209	.1274 (N.S.)		

concern about the stooge than subjects shocking at the lower levels. This would then suggest that rather than the concern being a preventive to the shocking behavior, it might be a reaction to it. The higher the shock, the more concern demonstrated. This is supported by the correlation coefficient between these two variables ($r = +.23$, significant at the .01 level). A somewhat clearer picture of the relationship between these variables is gained through an analysis of the correlation coefficient between the two variables over the four quarters of the task. In the first quarter, a non-significant, but negative correlation ($r = -.16$) was found as predicted. In the second and third quarters respectively ($r = +.03$) and ($r = +.13$), increasingly larger, positive, and as yet non-significant correlations were in evidence. Finally, in the fourth quarter a significant, positive correlation was found ($r = +.42$, significant at the .01 level). This seemed to demonstrate that the exact meaning of the question of concern for the stooge varied over the intensity and time of the shock delivered. However, the strongest aspect of the relationship suggested that the concern of the subject was more reactive than preventive.

A second avenue to determine the subject's concern about the stooge came through his responses to the seven point, self evaluative items on the Post Experimental Questionnaire (PEQ). Five different questions were utilized for this analysis, each examined a different avenue by

which the subject might demonstrate his concern for the stooge. Although considerable differences occurred between these measures, all had a common element, a demonstrated concern about the stooge. The scales represented a seven point continuum upon which subjects endorsed the item from Not At All to Extremely. The first question dealt with the subject's desire to stop during the experiment. A chi square analysis relating it to level of shock administered revealed a significant relationship at the .05 level (See Table 19). This was substantiated by the correlation coefficient between these two variables ($r = -.34$) which was significant and negative. This analysis suggested that subjects who felt more like stopping during the course of the experiment shocked less than subjects who did not feel as much like stopping. This appeared to provide some limited support for the hypothesis since it could be argued that subjects who felt like stopping do so over concern for the stooge. This is not meant to rule out other alternatives for termination, but is to say that it does reflect a concern for the other.

Since one way of allaying anxiety about an individual is through the reassurance of some communication either visual or verbal, it would be suspected that another means of demonstrated concern about the stooge would be through some manner of contacting that individual so as to provide evidence that could aid in reducing anxiety generated by shocking that individual. Therefore, people who were more

TABLE 19

A CHI SQUARE ANALYSIS OF SUBJECT'S DESIRE TO STOP THE EXPERIMENT AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Desire to Stop	Totals	12	29	37
Little	29	1	8	20
Somewhat	19	4	8	7
A Great Deal	30	7	13	10

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	10.922	.0275		
Chi-Square	10.003	.0404*		

*Significant at the .05 level.

interested in contacting the stooge, reflecting their concern, should shock less than those who were not interested in the stooge. Two items, both using level of shock as a dependent variable were used. A chi square analysis of the degree of preference for having the stooge in the same room (visual contact) and level of shock administered proved non-significant (See Table 20). The correlation coefficient of these two variables ($r = -.14$) was negative and non-significant, but in the direction predicted. That is, it suggested that subjects who desired to have the stooge physically available tended to shock less than those who did not manifest such a desire. This provides some support for the hypothesis under consideration. The chi square statistic revealed no significant relationship between preference for greater communication with the stooge and level of shock administered (See Table 21; $r = .00$, N.S.).

Another question focusing on the concern for the stooge pertained to the subject's position that he had "gone too far." On the Post Experimental Questionnaire (PEQ) subjects were asked on a seven point scale to what extent they felt that they would have preferred to stop prior to the point at which they had actually stopped. Each subject's response on this question was related to his level of shock administration. A chi square technique was significant at the .01 level (See Table 22; $r = +.48$, significant at the .01 level). An examination of the frequency table revealed

TABLE 20

A CHI SQUARE ANALYSIS OF PREFERENCE OF SUBJECT TO BE IN THE SAME ROOM WITH STOOGE AND LEVEL OF SHOCK ADMINISTERED

Level of Shock	Low	Medium	High
Preference for Physical Presence Totals	12	29	37
Low 33	3	14	16
Medium 24	3	7	14
High 21	6	8	7

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	5.2628	.2614		
Chi-Square	5.5054	.2393 (N.S.)		

TABLE 21

A CHI SQUARE ANALYSIS OF PREFERENCE FOR FURTHER COMMUNICATION WITH STOOGE AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Prefers Greater Communication	Totals	12	29	37
Low	29	5	9	15
High	49	7	20	22

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	.76001	.6839		
Chi-Square	.75126	.6869 (N.S.)		

TABLE 22

A CHI SQUARE ANALYSIS OF THE SUBJECT'S DESIRE TO HAVE STOPPED SOONER AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Desire to Stop Sooner	Totals	10	24	24
Low	25	8	12	5
High	33	2	12	19

Tests of Independence	Statistic	Significance	DF=2	N=58
Maximum Likelihood	11.455	.0033		
Chi-Square	10.870	.0044*		

*Significant beyond the .01 level.

that the more the subject wished to have stopped sooner, the higher the level of shock he administered. That is, the desire to have stopped sooner appeared to have followed, not preceeded the shocking behavior. It would appear to be reactive to it. Consequently, this would appear to provide evidence against the hypothesis under investigation.

A final avenue used to explore the relation of the subject's concern for the stooge with his shocking behavior utilized the Kohlberg Post Experimental Questionnaire (PEQ) (See Appendix A). The issue examined whether or not the subject viewed the shocks as contrary to the rights of the stooge. The question was open-ended. It would be assumed, and would serve as a basis for the hypothesis under consideration that the more an individual felt his behavior was responsible for the violation of another's rights, the less he would continue that behavior. That is, concern for the other (his rights) would reduce shocking behavior as opposed to those who believe no violation of rights had occurred. However, a chi square analysis of these two variables proved non-significant (See Table 23; $r = +.07$, N.S.). Perhaps most surprising and suggesting a trend non-supportive of the hypothesis was the fact that while 73 per cent of the subjects viewed the shocking behavior as against the rights of the stooge, they shocked as much and as at as high of levels as did the 27 per cent who did not view the shocking behavior as a violation of the rights of the stooge.

TABLE 23

A CHI SQUARE ANALYSIS OF THE VIOLATION OF THE STOOGE'S RIGHTS AND LEVEL OF SHOCK ADMINISTERED

Level of Shock	Low	Medium	High
Did Shock Violate Stooge's Rights? Totals	12	27	32
Yes 52	9	21	22
No 19	3	6	10

Tests of Independence	Statistic	Significance	DF=2	N=71
Maximum Likelihood	.63281	.7288		
Chi-Square	.63179	.7291 (N.S.)		

Taken together, these data supplied no clear evidence either supporting or rejecting the hypothesis under investigation. Some data, especially behavioral indices of concern, indicated negative support for the hypothesis. Other data, specifically the paper and pencil Post Experimental Questionnaire techniques offered support for the hypothesis. While yet other data neither confirmed nor rejected it. A further explanation of this hypothesis will be continued in the ensuing chapter.

6) The more powerful the experimenter is perceived by the subject, the more the subject will shock. Conversely, the less powerful the experimenter is perceived by the subject, the less the subject will shock.

Milgram (1963, 1965, 1967) has pointed out that the critical importance of the power attributed to the experimenter in this particular paradigm. Primarily, he has focused on the aspect of the legitimate power and authority attributed to the experimenter by the subjects. That is, the experimenter is perceived by the subjects as a researcher, a university professor, and a scientist. All of the accompanying respect associated with these positions was typically accorded the experimenter. This coupled with socialization procedures common to this culture to conform to legitimate authority figures, placed the subject in a conflictual situation with an individual to which most people attributed considerable power. Along that dimension it was believed that the more powerful the experimenter was

perceived by the subject, the more the subject would shock.

The power attributed to the experimenter was operationally defined in terms of four variables and their relation to the level of shock administered by the subject. Those four variables were as follows: 1) the subject's perception of the degree of ease with which he could disagree with the experimenter, 2) the right of the experimenter to conduct this type of research, 3) the credibility of the experimenter in his role, and 4) as perceived by the subject, through the experimenter, the obligation felt by the subject to continue. It was hoped that these four factors would shed some light upon the role of the power of the experimenter and its relation to the subject's performance.

In the first instance, it was believed that if the subject felt unable to disagree with the experimenter, this would basically result from the power attributed to the experimenter and eventually lead to compliance with the experimenter. However, if the experimenter was not perceived as being so powerful, disagreement would be more probable and compliance as well as level of shock administered considerably lessened. A chi square analysis of these two variables proved non-significant (See Table 24). Nevertheless, an examination of the frequency table and the correlation coefficient ($r = -.04$), which was small and non-significant, but in the predicted direction suggested a very slight trend supporting the hypothesis.

TABLE 24

A CHI SQUARE ANALYSIS OF PERCEIVED ABILITY OF SUBJECT TO DISAGREE WITH EXPERIMENTER AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Ability to Disagree	Totals	12	29	37
Not At All	24	2	10	12
Somewhat	26	6	7	13
Very Much	28	4	12	12

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	3.1871	.5270		
Chi-Square	3.0990	.5414 (N.S.)		

The second factor was the belief of the subject as to whether the experimenter had a right to conduct this type of research. This issue was brought up not only as a result of the ethical issues raised by the Milgram paradigm (even though a role playing version was employed), but also because of the manner in which Milgram's research was presented to the undergraduate students.

With this background in mind, the subject's belief that the experimenter had a right to conduct this type of research, while not by any means identical to the power attributed to the experimenter, must certainly be considered reflective of it. With that in mind the chi square analysis of the subject's impression of the experimenter's right to conduct this type of research and the level of shock administered was not significant (See Table 25). However, the correlation coefficient ($r = +.11$) between these two variables while not significant was positive and in the direction predicted. That is to say there was a trend that the more the experimenter was viewed as having a legitimate right to conduct this task, the higher the shock levels that were administered.

Since it was stated in the instructions to the subject (See Chapter II) that the stooge, the experimenter, and the subject were role playing, the effectiveness of that role playing becomes a critical issue. That is, for

TABLE 25

A CHI SQUARE ANALYSIS OF THE SUBJECT'S BELIEF OF THE EXPERIMENTER'S RIGHT TO CONDUCT THIS RESEARCH AND THE LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Experimenter's Right to Conduct Research	Totals	10	29	37
Not At All	26	2	13	11
Somewhat	35	6	13	16
Very Much	15	2	3	10

Tests of Independence	Statistic	Significance	DF=4	N=76
Maximum Likelihood	4.7154	.3178		
Chi-Square	4.5510	.3365 (N.S.)		

the experimenter to be perceived by the subject as powerful, he must initially be viewed as credible and believable. Following the behavioral task subjects were asked to rate on a seven point scale the believability of the experimenter in his role from Not At All to Extremely. It was expected that subjects who found the experimenter more believable (and powerful) would tend to employ higher levels of shock. An examination of this relationship utilizing the chi square technique (See Table 26) produced non-significant results. With the aid of a correlation coefficient between these two variables ($r = -.15$), a non-significant but negative trend provided evidence contrary to the hypothesis. That is, to a limited extent, as the experimenter was perceived as more credible, subjects tended to shock less- a finding opposite that predicted by the hypothesis.

A final index of the power of the experimenter was the sense of obligation he elicited from the subject. The more powerful the experimenter (based on his authority and prestage), the more likely he would be able to make the subject feel obligated to continue in the administration of shocks (Milgram, 1965). Much of the obligation could be directly tied to the experimenter, however, of lesser importance was the obligation felt by the subject to a representative of a highly reputable university as well as their own role as students and subjects in what they believed to be an important research endeavor. In essence, the sense of obligation

TABLE 26

A CHI SQUARE ANALYSIS OF THE EXPERIMENTER'S CREDIBILITY AND SHOCK LEVEL ADMINISTERED

Level of Shock	Low	Medium	High
Experimenter's Credibility Totals	12	29	37
Low 26	2	10	14
Medium 27	4	10	13
High 25	6	9	10

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	2.8092	.5902		
Chi-Square	2.7524	.6001 (N.S.)		

elicited from the subjects represented only a single facet of the experimenter's power. A chi square technique was used to ascertain the relationship between the subject's feeling of obligation to continue and the subject's shocking behavior (See Table 27). The test revealed a significant relationship between these two variables (.001 level). An examination of the frequency tables used demonstrated the effect of these variables interacting. Of the 47 per cent of the total subjects that felt a relatively strong obligation to continue, 77 per cent of those administered the highest third of the shock levels. And of the 53 per cent of the total subjects that felt little or no obligation to continue, 81.5 per cent of those administered the lower two-thirds of the shock levels. In short, the more obligation the subject felt to continue, the further the level of shock he presented. The strength of this relationship was not only reflected by the high degree of significance of the chi square technique, but also by the relatively high correlation coefficient between these two variables ($r = +.56$, significant at the .001 level). Therefore it can be seen that of the four indices of experimenter power, it was the final one that produced the greatest support for the hypothesis.

In summary, the general data seemed to support the hypothesis that the more powerful the subject perceived the experimenter, the more shock the subject would administer. All the evidence was not clear cut, but the tendencies were

TABLE 27

A CHI SQUARE ANALYSIS OF SUBJECT'S FEELING OF OBLIGATION TO CONTINUE AND LEVEL OF SHOCK ADMINISTERED

Level of Shock	Low	Medium	High
Subject Feels Obligated to Continue — Totals	12	27	33
Yes	34	1	7	26
No	38	11	20	7

Tests of Independence	Statistic	Significance	DF=2	N=72
Maximum Likelihood	27.698	.0000		
Chi-Square	25.388	.0000*		

*Significant at the .001 level.

generally evident. Data on the subject's ability to disagree with the experimenter as well as the right of the experimenter to conduct this type of research, while showing small and non-significant tendencies, did provide minor support for the hypothesis. The data on the subject's perceived obligation to continue were both significant and in the direction predicted by the hypothesis. The only contradictory evidence was a small, negative relation involving the credibility of the experimenter. Nevertheless, the general findings provided support for the hypothesis under investigation.

7) The more negatively the subject perceives the learner, the more the subject will shock him. Conversely, the less negatively the subject perceives the learner, the less the subject will shock.

Milgram (1965) suggested that two of the most important variables in determining the amount of shock a subject would administer to another individual were the nature of the relationship between the subject, the experimenter, and the stooge, as well as how the subject perceived these significant others. In the previous section, considerable attention was paid to the manner in which the subject perceived the experimenter and the resultant effects on the subject's shocking behavior. At this time some effort will be made to identify the role of positive and negative valences attributed to the stooge by the subject, and the effect of those evaluations upon the subject's task performance.

It was believed that when the stooges were perceived positively (subject likes him) shocks would be administered at a relatively low level as compared to situations in which stooges were perceived negatively (subject does not like him).

Two rating scales allowed a test of this hypothesis. In the first, the subject was asked to rate the degree (on a seven point scale from Not At All to Extremely) to which he preferred a closer relationship to the learner. It was expected that this would serve as a subtle indicator of the extent to which the subject liked the stooge. Further, it was felt that the closer the subject preferred to be with the stooge (that is, liked him more) the lower the level of shock that he would administer. Also, the farther he preferred to be from the stooge (that is, liked him less) the higher level of shock that he would administer. A chi square analysis between the subject's preference for a closer relation was non-significant (See Table 28). However, the correlation coefficient ($r = -.10$) while small and non-significant was in the direction predicted. That is, it suggested that the closer the subject preferred to be with the stooge the lower the shock level that was administered. This was viewed as limited support for the hypothesis under study.

While the above indicator was seen as a subtle means for determining the extent to which the subject viewed the

TABLE 28

A CHI SQUARE ANALYSIS OF PREFERENCE FOR CLOSENESS TO THE STOOGE AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Preferred Closeness to Stooge	Totals	12	29	37
Prefer Closeness	55	8	21	26
Prefer Distance	23	4	8	11

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	.13549	.9345		
Chi-Square	.13682	.9339 (N.S.)		

stooge favorably, a more obvious index was also employed. To assess the subject's evaluation of the stooge he was directly asked on the rating scale to indicate the extent to which the subject liked the learner. As in the above analysis of the indirect index it was expected that subjects who indicated a greater liking for the stooge would shock at lower levels than subjects that expressed less of a liking for the stooge. To assess this relationship a chi square analysis of the degree to which the subject liked the learner and the level of shock administered was undertaken. The analysis (See Table 29) proved non-significant. Nonetheless, a correlation coefficient ($r = -.14$) which was relatively small and non-significant was in the direction predicted. As with the statistical test noted in relation to the subject's indirect liking of the stooge above, it proved to support the hypothesis, although in a limited manner. It also endorsed the position that the more positively the stooge is perceived by the subject the less shock the subject will administer; and the more negatively the stooge is perceived by the subject the more shock the stooge will receive.

TABLE 29

A CHI SQUARE ANALYSIS OF DEGREE SUBJECT LIKED STOOGE AND LEVEL OF SHOCK ADMINISTERED

	Level of Shock	Low	Medium	High
Degree Subject Liked Stooge	Totals	11	28	36
Low	32	3	14	15
High	43	8	14	21

Tests of Independence	Statistic	Significance	DF=2	N=75
Maximum Likelihood	1.7438	.4182		
Chi-Square	1.6959	.4283 (N.S.)		

CHAPTER IV

SUMMARY AND DISCUSSION

The general problem to which this research is directed has been for the most part unexplored.. It is the problem of predicting the relationship between moral orientation (internal or external) and the willingness of a subject to violate a presumed internalized norm not to harm others. Other researchers have focused on the determination of moral orientation through one or another of several means (See Chapter I). Similarly, additional research efforts have centered upon various attributes associated with a particular moral orientation. Nevertheless, up to this point, no effort has been undertaken to link a moral orientation (as determined by moral judgment) with moral behavior. The two, for the most part, had been viewed as congruent. In more recent years this congruency has been seriously questioned and the nature of the interaction between moral judgment and moral behavior which had never before been examined, came under the scrutiny of this investigator. Additionally, an avenue rarely examined in the moral development literature, external pressure to violate a supposedly internalized norm, was employed. Surprisingly, this type of pressure, to which most individuals are routinely exposed was left unexplored in the

past, primarily because of the psychoanalytic preoccupation with internal factors influencing the individual to deviate as well as methodological issues raised by the implementation of meaningful external pressures to deviate. The latter, particularly involved rather serious ethical and moral issues.

The basis of the approach employed in this investigation was the independence of moral modes in the assessment of moral reasoning and the consequences of that reasoning (moral behavior). Most of the research undertaken in previous endeavors either confounded or examined identical moral modes as both independent and dependent variables. That is, these studies typically categorized levels of moral development in terms of moral reasoning or judgment and usually measured the dependent variables in terms of the same mode, albeit in a slightly modified form. This proved to be two measures of moral orientation (moral reasoning or judgment) along essentially the same dimension. A similar situation existed in numerous studies dealing with moral behavior. Each set of studies provided thorough investigations of moral reasoning or moral behavior, but none related the two. In the present investigation an effort was made to segregate moral modes in order to strengthen the prediction of each. That is, while it became clear that there was a relationship between moral orientation and moral behavior, the exact nature of which was not clear, it also became ob-

vious that these two entities were not identical. Therefore, it was hoped that through the maintenance of separate moral modes some light might be shed on the interaction between moral reasoning and its behavioral manifestation, moral action.

Employing the approach outlined above, it was believed by this investigator that the hypotheses (outlined in Chapter I) could be adequately examined and tested. The major hypotheses as well as their underlying assumptions will now be examined.

The first major hypothesis, that subjects with an internal moral orientation will shock less than subjects with an external moral orientation was derived from the work of Freud and Kohlberg. The logic behind the assumption underlying this hypothesis was relatively simple. The thinking basically involved Freud's position on internalization (put forth in Chapter I). That is, that the individual internalized through one or another means, the values of the society through the societal representative, the parent. These values and proscriptions were internalized early and remained for the most part unchanged and effective life long. These inner controls were viewed as being operative and independent of external surveillance and reinforcement. It was assumed that individuals that manifested a greater degree of reliance upon these internalized values (internal moral oriented subjects) would be less likely to harm ano-

ther than those less reliant upon these internalized values (external moral oriented subjects). The measuring gauge employed to assess the degree of internal or external orientation was Kohlberg's Moral Dilemmas (See Chapter I).

The second major hypothesis involved the effects of external pressure on the willingness of the subject to harm another individual. Simply put, it was believed that subjects exposed to high pressure will shock another individual more than subjects exposed to low pressure. The rationale supporting this hypothesis stemmed from the work of Reiss. Reiss as well as a number of other theorists questioned the value of internalization phenomenon in accounting for behavior. On the contrary, Reiss viewed contemporary reinforcement and surveillance phenomenon as the prime influences in the moral action of an individual. It was to these sources that Reiss felt the subject was oriented and it would be to these, rather than some vague internalized parental representatives, that the subject would respond. Hence, the position outlined here would suggest that with increments in surveillance and reinforcement, represented in this research in terms of increased pressure, the experimenter could more easily mold the behavior of the subject in the desired direction, then under conditions of low pressure. The pressure was manifested in terms of surveillance (high pressure: visual and auditory and low pressure: auditory only) as well as reinforcement (high pressure: immediate

and close physical proximity to the experimenter and low pressure: less than immediate and relatively greater physical distance from the experimenter).

The final major hypothesis examined the interaction effects between moral orientation (Hypothesis one) and experimenter pressure (Hypothesis two). In short, it suggested that internal moral oriented subjects under high pressure would shock more than internal moral oriented subjects under low pressure. External moral oriented subjects with high pressure would shock more than external moral oriented subjects with low pressure. The major assumption underlying this hypothesis was that within similar types of moral orientation, experimenter pressure would have an effect. The basis of this logic suggested that despite the degree of reliance upon internalization (high for internal moral oriented subjects, low for external moral oriented subjects) most individuals operate within a social framework and to a certain degree are responsive to it. In conditions where the surrounding social pressures are intense, subjects for the most part, despite their moral orientation, are more receptive to them, than when these pressures are less intense. That is, while highly internalized individuals may be less reliant upon external cues for their behavior than externally oriented subjects, they don't operate in a vacuum and must take these factors into consideration prior to committing themselves to behavior. Furthermore, the more powerful

these external agents (the higher the pressure) the more salience they have for the subject's behavior regardless of moral orientation.

Now that some effort has been taken to outline the major hypotheses and their underlying assumptions, attention can be directed to the manner in which these questions were studied, the specific methodology employed. Implementation of the research involved three phases: (1) the pretesting, (2) the experimental task, and (3) the post experimental operations. In the initial phase the major objective consisted of assessing the subject's moral orientation or reasoning through Kohlberg's Moral Dilemmas, as well as the collection of some demographic variables. Subsequently, subjects were placed in the experimental paradigm in a counter balanced manner controlling for both moral orientation and the experimenter pressure. During that phase of the research behavioral observations of the subjects were recorded. Then the subject was administered a number of questionnaires in order to record his thoughts and feelings following his role in the experiment. The final aspect of the post experimental operations involved a debriefing of the subject.

Initially, almost 300 white, undergraduate, male subjects were screened for participation in this research effort. As a consequence of the Kohlberg Moral Dilemmas, which assessed the subjects for moral orientation, this

number was greatly reduced. Additional subjects were lost to schedule changes, unavailability, etc. The final subject pool consisted of 78 subjects. Forty subjects were equally divided between the two external moral oriented conditions, while 19 were placed in each of the internal moral oriented conditions.

Summary and Discussion of Major Findings

Initially an effort will be made to discuss the findings in relation to the major hypotheses. In a subsequent section a discussion of the results bearing on the secondary hypotheses will be undertaken.

Basically, there was no support for the major hypotheses dealing with moral orientation and shocking behavior or experimenter pressure and shocking behavior. The only positive result was a trend (significant at the .10 level) linking the interaction of moral orientation and experimenter pressure with shocking behavior.

In the case relating moral orientation and the administration of shock, it had been assumed (as reported earlier in this chapter) that the more reliant a subject was upon internalized values for the direction of his behavior (internal moral oriented subjects) the less this subject would shock another individual. This was in contrast to other subjects who invested considerably more weight in external cues for the direction of their behavior (external moral

oriented subjects). The key element in the assumption underlying this hypothesis was that there was a positive link between moral orientation (as measured by Kohlberg's Moral Dilemmas) and moral behavior (as demonstrated by the subject's performance on the task). Not only was moral orientation viewed as related positively to moral behavior, but at the same time was conceptualized as being causally related to and reflective of that moral behavior. It had been assumed that awareness of a subject's moral orientation or judgment would permit a reasonable prediction of that subject's behavior in the moral sphere. However, the findings indicated that the relationship between moral orientation and moral behavior was anything but clear. That is, on any given two subjects selected, one being internal in moral orientation and the other being external in moral orientation, their moral orientation did not provide sufficient discriminatory data to predict differences in their subsequent behavior in the moral realm. In short, knowing the moral orientation of a subject made no difference in predicting that subject's moral behavior. Based on this evidence and with the variables employed, no relationship between moral orientation and moral behavior was discovered. While this proved to be one of the major goals of this research endeavor, that is, the examination of the relationship between moral judgment and behavior, the findings did not support the conclusion that a positive and predictable relation existed be-

tween the two. In short there was no evidence of either a positive or a negative relation.

In terms of the second major hypothesis that greater experimenter pressure will lead to greater shockings on the part of the subject, again no support was discovered. That is, subjects operating under low pressure shocked as much as subjects operating under high pressure. This finding would appear to seriously question the assumption relevant to this hypothesis and reported in the previous section. That assumption derived from Reiss indicated that increased pressure would make the external agent a more salient cue in the direction of the behavior that was selected. While there was considerable logical merit in this assumption, the data neither supported this assumption nor the hypothesis for which it was a basis.

This result appeared even more surprising as a result of two other studies. Milgram (1965) reported in an earlier study of the differential effects of experimenter pressure that subjects exposed to high experimenter pressure shocked more than subjects exposed to low experimenter pressure. In fact, in an experiment where the high and low experimenter pressure conditions almost exactly paralleled those in this research, Milgram found that subjects under high pressure complied with the experimenter three times as much as subjects under low pressure. Also, in the pilot study of this investigation, employing the forewarning vari-

ant of role playing, subjects under high pressure on the average shocked 15 levels higher than subjects under low pressure. Taken together, these two studies illustrated that even while using divergent populations, that subjects under high pressure shocked more than subjects under low pressure. Additionally, in one of the studies, the subjects were operating under deception while under the other they were operating under role playing. Since these results generalized over such different conditions, the question may be raised why didn't this relationship maintain over the present investigation?

While using a superficial analysis, the pilot study and the major investigation undertaken may appear to be identical. However, upon closer scrutiny, several differences emerged. In the first place, the pilot study was conducted at Eastern Michigan University where the student makeup was basically from blue collar families, as opposed to the major investigation which was carried out at the University of Michigan where the student composition was basically upper middle class. Since the population differences between Milgram (1965) and the pilot were so great and manifested no basic differences in the findings, it could be reasonably entertained that a much more moderate difference in population between Eastern Michigan University and the University of Michigan was not responsible for the differences in results. Secondly, the experience of the experi-

menter and the stooge may have accounted for the differences between the pilot and the major experimental results. This could be considered in that more experience would make the experimenter and the stooge more expert and comfortable in their roles. However, an examination of questionnaires rating both the stooge and the experimenter did not confirm this, at least as perceived by the subject. The experimenter and the stooge were perceived by the subject without any significant differences in either the pilot or the major study. A third factor offered considerably more explanatory potential than either of the first two. That is (it will be remembered from Chapter II), that the forewarning variant of role playing was employed in the pilot work. It was anticipated that the same type of role playing would be used in the major study and it will be recalled that efforts were undertaken to prevent potential subjects from being informed about the Milgram work so that no assumptions of this role playing technique would be violated. However, it was learned prior to the commencement of the major study that many subjects, despite efforts to control it, had from one or another source, learned of Milgram's paradigm. This later was determined to be 58 per cent of the subjects used in the major study. Since that information violated the assumptions of the forewarning variant, the type of role playing needed to be replaced. The prebriefing variant was substituted for the forewarning variant. Unlike forewarning vari-

ant that indicated all in the experiment might not be what it appeared to be, the prebriefing variant explained fully the potential deceptions and the underlying rationale of the experiment. The prebriefing variant was employed by necessity with one subject in the pilot study and provided what appeared to be satisfactory results (See Chapter II). Responsibility was attributed to this change in role playing for modifying the previously reported effects of pressure (Milgram, 1965; pilot study). That is, as a result of the change in role playing, the usual relationship between high pressure and high shocking behavior, was eradicated and no differences were found in shocking behavior despite the differential use of the pressure. While it was not clear how the prebriefing type of role playing interfered with the usual mechanism relating experimenter pressure and shocking behavior, there was a study that provided a limited explanation of the parameters of this type of role playing. Horowitz and Rothschild (1970) compared prebriefing, forewarning, and deception. The authors noted that their results indicated that the prebriefing variant of role playing yielded significantly less conformity (they studied conformity) than either the forewarned or deceived subjects. The forewarned and deceived groups yielded comparable results. It should be noted that Milgram (1965) employed deception, the pilot used forewarning, and the major study utilized prebriefing. It would appear then that while according to

Horowitz and Rothschild the forewarning variant guarded against the ethical pitfalls of deception without relinquishing the experimental realism of the manipulation, that prebriefing only maintained the ethical standards while obscuring the realism and meaning of the experimental manipulation.

The third major hypothesis, the interaction of moral orientation and experimenter pressure, provided the most promising results of the three major hypotheses. Despite the findings that moral orientation and shock, as well as experimenter pressure and shock were not related, the results suggested at least a tendency between the interaction of these two independent variables and shock administered (significant at the .10 level) in the direction predicted. However, an examination of the univariate analysis of variance table provided some rather interesting results. That is, as predicted, the effect of high experimenter pressure upon an external moral orientation resulted in increased shocking behavior as compared to the effects of low experimenter pressure. However, the effect of experimenter pressure was reversed when subjects were operating under an internal moral orientation, a direction counter to that predicted. That is, subjects under an internal moral orientation exposed to high pressure, shocked less than subjects under that same moral orientation exposed to low pressure. To what factors can those results be attributed? It would appear

that the pressure provided by the experimenter had a differential effect based on the moral orientation to which it is applied. In short, under an external moral orientation high experimenter pressure caused greater shocking by the subject, while under an internal moral orientation low pressure caused the subject to shock more. It would appear that as a result of a utilization of the prebriefing technique more information was made available to the subject than under either the forewarning or deception conditions cited earlier. It will be remembered that the external oriented subjects were more sensitive to cues from the experimenter. When the prebriefing variant was employed they responded in the same manner as if they had had less information. The extra information imbedded in the prebriefing format provided no more significant cueing function to the external subjects than did the information provided in either the deception or the forewarning variants. However, the additional information provided by prebriefing had a considerably different effect on the internal moral oriented subjects, who while typically attuned to external cues, relied more heavily on internal input for directionality. Specifically, just as with external moral oriented subjects, the internal oriented subjects under high pressure found the additional information involved in the prebriefing variant to be superfluous. In that condition, the experimenter was present and represented an external conflict for the inter-

nal norms. This provided some pressure, but not to the same extent as in the external oriented condition. However, in the internal moral oriented subjects with low pressure, the experimenter was not present. In that situation, both he and his instructions were represented by an engram. That is, both the experimenter and the instructions he had given during the prebriefing session were represented internally. The internal moral oriented subjects were more susceptible to internal directionality and found this internalized representative of the experimenter as providing considerably more pressure to comply than the experimenter's very presence. That is, the internal subjects were more sensitive to internal cueing than external direction, and consequently found external pressure, though typically high, to be less than the pressure provided by a coupling of the absent experimenter and the greater than usual amount of information conveyed through the prebriefing variant. A similar phenomenon with the opposite results could be found in the low pressure external moral oriented condition. That is, because in that condition subjects were more susceptible to direction not from internal, but from external sources.

Summary and Discussion of Secondary Findings

Now the focus of this research can be turned to a discussion of the findings from the secondary hypotheses. This will be followed by an examination of the implications

of this research effort and future research directions suggested by this investigation.

As was alluded to earlier (previous section) other research (Milgram, 1965, pilot study) indicated that as experimenter pressure was increased, the subject would shock more. These findings were not supported by the univariate analysis of variance which demonstrated that no relationship existed between experimenter closeness (high pressure) or experimenter distance (low pressure) and the administration of shock. However, experimenter pressure could be alternately represented through the experimental prod delivered by the experimenter when the subject balked or refused to continue.

An examination of the data revealed a negative and significant correlation between total number of prods and shock level administered. The finding was in the opposite direction of that predicted by the hypothesis. A further investigation of the two properties of prods, their type, and their quarter of delivery appeared necessary. A perusal of the data on quarter of shock delivery revealed that the value of the prod was contingent upon the quarter in which it was introduced. In short, as the subject proceeded further into the experiment, more pressure to comply with the experimenter's demands was experienced from each ensuing prod. However, in the earlier stages of the task, the effect of prods was reversed. If the effects of prods

were observed by quarter, it appeared that initially they took on a negative value in relation to shocking behavior, which diminished, becoming positive, until finally it took on a positive value at the end of the task. A similar analysis of the type of prod suggested that as the potency of the prod,(moving from one to four) increased, the subject appeared to curtail his shocking of the stooge. Hence, the relationship between experimenter pressure (in terms of prods elicited) and shocking behavior seemed contingent upon the time (quarter of delivery) and the type (prod 1, 2, 3, or 4) of prod employed. Overall, the data seemed to provide negative support for the hypothesis and suggested a negative relation between total prods and level of shock administered.

In order to understand these findings an examination of the relationship between quarter of delivery and shocking behavior and type of prod and shocking behavior, was undertaken. In terms of the quarter of delivery of prods an analysis of the context in which a single prod was introduced appeared important. That demonstrated that in the earlier quarters, the fewest prods were administered and the most were delivered in the final quarter with intermediate numbers of prods produced in the intervening quarters. This would suggest that the effect of each subsequent prod was enhanced as a result of more prods being delivered in close proximity because more prods were being presented as the

experiment progressed. This might well explain why as the behavioral task progressed the subjects experienced greater pressure and utilized more shocking behavior. But what of the initial negative effect of prods in the first quarter? This explanation might well be tied to the previous one. That is, initial prods in the first quarter were relatively few as compared with subsequent quarters. So each prod must, in the early quarters, rely to a greater extent solely upon its own properties and receive no additional enhancement (or very little) from surrounding prods. Further, since the subject was not sufficiently adapted to the experimental conditions in the early going as he was later, concerns over the stooge and the conflict over his own behavior was greatest at this time. Put in this context, these earlier, non-supported prods had a tendency to be weaker than the later more supported ones and tended to underscore the subject's concerns about the stooge's own behavior and to make them even more prepotent issues. In this condition the subject was less likely to shock the stooge and to be impelled in the opposite direction intended by the prod.

Having considered the quarter of prod delivery, some attention will now be addressed to explain why as the potency of the prods increased the shocking behavior decreased. While it was initially assumed that greater pressure in terms of prod type (one through four) would lead to more shocking of the subject, the opposite was found to exist. Two factors

appeared to be responsible for this result. In the first place, each ensuing prod, while producing greater pressure also placed greater demands on the subject. That is, to comply with behavior that he had successfully avoided without the prod. The effect of the increased prod pressure was to highlight that resistance and often cause a redoubling of the subject's efforts that had not occurred with the less demanding prods. That is, increased prod pressure rather than encouraging greater shocking behavior was underscoring and supporting the resistance to that pressure within the subject. However, less intense prods had the effect predicted. That is, because with their decreased demandingness fewer counter-arguments and conflicts were brought to the fore against them. In short, as the prod pressure (moving from one to four) increased, disproportionate amounts of resistance were elicited from the subject as compared to the less "potent" prods. A second, but related factor demonstrated that as the more intense prods were utilized greater feedback (screams from the subject) and accompanying anxiety were elicited. This served to undermine complaince, especially during the more intense prods where these conditions were intensified. Just the opposite was true in the less "potent" prods. That is, since the subject screamed less and produced less anxiety in the subject, fewer conflicts were raised for the subject and compliance was considerably more comfortable. Taken together, both the type of prod and the

quarter of delivery (as discussed above) were responsible for the observed negative effect between total number of prods and experimental pressure, a finding which ran counter to the predicted outcome.

Another aspect of this research dealt with the effect of pressure upon anxiety. It had been assumed that when pressure was increased an accompanying increment in anxiety would result. The findings provided partial support for this hypothesis. When pressure was conceptualized in terms of either one type of experimenter pressure (experimenter absent or present) or another type of experimenter pressure (experimental prods) and behavioral manifestations of anxiety, there was statistically significant support for the hypothesis under consideration, albeit less support in terms of the second type experimental pressure. However, when experimenter pressure (the experimenter's presence or absence) was related to either of the four types of paper and pencil measures of anxiety, no significant support was uncovered for the hypothesis. How was it that these differences occurred? Two lines of reasoning bear on this problem. The first, that since the behavioral signs of anxiety were measuring task behavior as were the paper and pencil measures, the measurement occurring closer to the anxiety provoking incident would stand to reason to be more reflective of that anxiety had a measure that was made considerably later. That is, behavioral signs observed relatively close

to the commission of an act would logically appear to be more accurate than measurements taken considerably later and open to a number of intervening events (if not time alone). Secondly, since no higher level cognitive processes were involved in the behavioral manifestation of anxiety, whereas they would be in the highly verbalized paper and pencil techniques, it would make sense that the behavioral manifestations were purer indicators of the underlying anxiety state. That is, the skills that were involved in completing the paper and pencil technique were open to the distorting influences of defense mechanisms, concerns about self image, etc. These same influences were either non-operative in the behavioral sphere or to a minimal degree, and consequently made behavioral signs a more accurate assessor of the internal condition (anxiety). Because of these reasons, it was believed that behavioral signs of anxiety were most reflective of the subject's underlying anxiety, whereas paper and pencil techniques as the result of defensiveness and intellectual operations were more indicative, not of how the subject was, but how he felt he should appear.

Another finding of this investigation dealt with the relationship between shock administration and the anxiety generated by that behavior. The results, in general, paralleled the last reported findings above. That is, the major evidence supporting the hypothesis that increased shock led to increased anxiety stemmed predominantly from the behav-

ioral indicators rather than the paper and pencil techniques. As in the above explanation the behavioral indicators were viewed as more reliable indicators of the underlying state of the subject because (1) they were less under the control of the individual, i.e. not influenced by defensive operations, than paper and pencil techniques and (2) temporally, they were in evidence relatively close to the time the anxiety provoking act was elicited, which was not true of the paper and pencil devices. Nevertheless, support for the hypothesis, unlike the previous finding presented above, was also found on the paper and pencil tests. In one case, subjects on the post-experimental questionnaire demonstrated positive correlation coefficient ($r = +.12$) in the direction predicted (though not significant) between the highest level of anxiety experienced and level of shock administered. Also State Anxiety, one of the more sensitive indices to changes in anxiety showed an almost significant ($r = +.19$) correlation coefficient in the direction predicted with shock level administered. However, the strongest support for the hypothesis came in terms of behavioral findings. That is, the total behavioral signs of anxiety were significantly related to shocking behavior ($r = +.41$, significant at the .001 level). Not only was this true in a molar examination, but also in a molecular analysis. That is, the components of the total signs of anxiety related to shocking behavior were also significant. Not only was this found to

be the case for each of the four subindices of total anxiety signs (hand movement, foot movement, body movement, and clumsiness), but also across each of the four quarters of the experiment. This provided rather overwhelming support that when shocking behavior was increased so was the corresponding anxiety experienced. This provided additional support for similar evidence obtained in the pilot study as well as descriptive-anecdotal information presented by Milgram. The impact of the anxiety was sufficiently strong that not only did it manifest itself in the behavioral sphere, as did the pressure indicators, but also in the more subtle paper and pencil techniques, where the pressure indicators were not so clearly manifested as a result of defensive operations and temporal delays. In short, wide support was found for the hypothesis that as shocking behavior increased, so did the accompanying anxiety.

Probably one of the most disappointing findings of the investigation involved the relationship between responsibility attribution and shock level administered. Based on Milgram's research and dissonance theory, it had been hypothesized that as the subject took greater responsibility for his behavior he would shock less. Using a tri-variable index of responsibility attribution, no significant relation was found between any of the three indices and shocking behavior. While these overall results were discouraging some minor support was provided by tendencies in the data.

Although locus of control demonstrated virtually no statistical relation to shocking behavior, the relationship between both the perception of being deceived and the verbal responsibility for the shocking with shock administration while not significant, was in the direction predicted. Perhaps with refinements of the techniques by which responsibility attribution was measured its hypothesized relationship to shocking behavior might be uncovered. That is, based on these research findings and previous studies, it was the impression of this investigator that armed with more sophisticated or sensitive techniques, the hypothesized relationship between these two variables will be found.

In the area relating subject's concern about the stooge to shocking behavior no clear cut results were obtained. Nevertheless, the greatest weight of the evidence suggested a position opposite that represented by the hypothesis. That is, in general, rather than subjects who demonstrated more concern about the stooge shocking less, they shocked more. In short, although items on the Post Experimental Questionnaire (PEQ) involving the subject's desire to stop and shocking behavior (chi square significant at the .05 level; $r = -.34$, significant at the .01 level) as well as a preference for the subject to have the stooge in the same room (chi square not significant; $r = -.14$, N.S.) provided support for the hypothesis, most of the data suggested a counter trend. The major evidence that was

non-supportive of the hypothesis was the behavioral indices. These dealt with questions of concern about the stooge's welfare that the subject addressed to the experimenter. These were issues initiated by the subject at the time of the behavioral task, not following it as were the items on the questionnaire. That is, they were reflective of the subject's feeling at the time of the behavioral task. Whereas questions raised after the task were not as spontaneous and were open to intervening influences and considerations. While the chi square analysis of questions asked and shock level administered were not significant, an examination of the frequency table was enlightening. It showed that subject's who shocked less appeared to be less concerned in terms of questions posed, then subjects who shocked more and directed more questions to the experimenter. Follow up support came from the correlation coefficient ($r = +.23$, significant at the .05 level) between these two variables. Especially helpful was an analysis of the relationship between the questions asked, their quarter of introduction, and shocking behavior. What was found suggested an almost linear relationship between these variables. The correlation coefficients presented by quarter (Q_1: $r = -.16$, Q_2: $r = +.03$; Q_3: $r = +.13$, and Q_4: $r = +.42$) indicated a relation between these two variables diametrically opposed to the predicted relationship. That is, subjects tended to be less concerned the less they shocked and more concerned the

more they shocked. The concern appeared to increase not only as a function of the intensity of the shock, but with the increasing time spent in the behavioral task. This finding would suggest that although concern did not appear to act as a deterrent to shocking as predicted, it did seem to represent an emotional reaction of the subject to the plight of the stooge. That is, rather than being preventive, this concern appeared to be reactive. Another piece of evidence rendering the same conclusion utilized the Post Experimental Questionnaire (PEQ). The subject related his concern about the stooge by his desire to have stopped sooner than he actually did to shock level administered. The relationship was statistically significant at the .01 level in a chi square analysis ($r = +.48$, significant at the .001 level). Again this suggested that more concern was demonstrated by those who shocked more than by those who shocked less, reinforcing this investigator's "reactive concern" idea. One more piece of evidence bearing on the hypothesis under investigation will be presented. Not only did the ensuing evidence not support the hypothesis, but surprised and somewhat alarmed the investigator. This involved the relationship between the rights of the stooge and its relation to shocking behavior. It was proposed that subjects who found the administration of shock to violate the stooge's rights would shock less than those who perceived no violation of rights. Seventy-three per cent of the subjects viewed the request to shock

the stooge as a violation of his rights, while twenty-seven per cent did not. The marked difference between these two percentages was not unanticipated, however its relationship to shocking behavior was. That is, despite the subject's position on whether or not a stooge's rights were violated, it made no difference whether he would shock the stooge or not. In short, subjects who felt that shocking was a violation of another person's rights, shocked as much as those who did not view any such violation. But how may this rather alarming finding be explained? While concern about the stooge's rights may be an important motive in the ensuing determination of whether that person is shocked or not, it is not the only factor. Of even greater strength was pressure placed on the subject to violate this norm and comply with the request of a legitimate authority figure. It would appear that the experimenter was in a position of sufficient power such that he might influence nearly three quarters of the subjects to abandon their stated concern with the violation of a peer's rights. This would appear to be additional testimony to the extent of the pressure to comply to which the experimenter subjected the naive subject. Further, the magnitude of this pressure was difficult to appreciate based solely on statistical evidence, a more intimate knowledge of and involvement with the paradigm was necessary to fully appreciate its impact.

Now that the impact and influence that the experimen-

ter brought to bear on the subject has been delved into, a closer examination of the role of the experimenter and his effect upon the subject's shocking behavior seems to be in order. Most of the other findings, but especially the most recent ones listed above, laid the foundation for the next hypothesis under study, that the more powerful the subject perceived the experimenter, the more the subject would shock. Four indices were employed to tap this relationship, only one provided data that did not support the hypothesis. This one measure (the believability of the experimenter in his role and shocking behavior) was non-significant, but suggestive of an interpretation of the data opposite to that of the hypothesis. Most importantly, however, it was the only one of the four indices not dealing with the subject's relation to the experimenter and his legitimacy. It focused on the role playing aspect of the research and appeared to reflect more the opinion of the subject about the general effectiveness of role playing rather than on the interaction between the subject and the experimenter. Furthermore, it provided the only opportunity in the research where the subject could present his feelings about the experimenter. Here the subject had the chance to direct some negative affect (in terms of ratings) toward the experimenter who "made" the subject engage in behavior the subject felt was wrong. These factors tended to contaminate the relationship between the way the subject was perceived and the subsequent

effect on shocking behavior. Three other indices, all supportive of the hypothesis were more clearly framed so as to avoid this type of contamination. In one of them, the degree to which the subject felt he could disagree with the experimenter was viewed as a measure of perceived experimenter power and related to shocking behavior. Despite the small and non-significant relationship, the findings represented a trend in the direction predicted. Another variable of the experimenter's perceived power was his right to conduct this type of research and its relation to the administration of shock. Although the statistical relationship was small and non-significant (it approached significance) it was in the direction predicted. However, the most potent evidence relating the experimenter's perceived power and the subject's shocking behavior involved the legitimacy of the experimenter and the implication of that for the subject. That is, as pointed out earlier, the more legitimate and powerful the experimenter was perceived by the subject, the greater control the experimenter would have over the subject's behavior and the more the subject's behavior would comply with the experimenter's requests. One way of measuring this power would be the obligation for compliance the experimenter elicited from the subject. This was measured. It was found that there was (using a chi square test) a significant relationship between perceived obligation of the subject toward the experimenter and shocking behavior past

the .001 level. This relationship was reinforced by a relatively large correlation coefficient (r = +.56, significant at the .001 level) in the direction predicted. This was strong evidence that as the subject felt more obligation to the experimenter, the more he shocked the stooge. The strength of this relationship was better understood by an examination of the frequency table. Of the 47 per cent of the subjects that felt a relatively strong obligation toward the experimenter, 77 per cent administered shocks in the upper one third of the shocking distribution. However, of the 53 per cent of the subjects feeling less of an obligation to the experimenter, 81.5 per cent administered shocks in the lower two thirds of the shock distribution. In short, this evidence rather emphatically supported the position that when the experimenter was perceived as more powerful (especially in relation to obligation) subjects tended to shock more.

In the last paragraph an effort was made to interpret the findings of the relationship of the experimenter (perceived power) upon the subject (shocking behavior). Now the efforts of this investigation will be turned to an equally important interaction, that between the subject and the stooge. In particular, the area of study involved the relationship between the degree to which the subject perceived the stooge as favorable (degree of liking) and the ensuing shocking behavior of the subject. It had been hypothesized

that as the subject demonstrated a more positive evaluation of the stooge, the less the subject would shock him. Since, as was pointed out in Chapter II no relationship was allowed to be formed between the subject and the stooge, any relationship that developed would either be projected by the subject or employed to reduce dissonance. To assess the interaction of the subject and the stooge, two indices were used, one subtle and the second obvious. In the first, it was assumed that subjects that liked the stooge more would prefer to be in a closer relationship with that individual than subjects who liked that individual less. Furthermore, the closer the subject preferred to be in relation to the stooge, the less the subject would shock him. Although the relationship between these two variables was non-significant and small, it was in the direction predicted. Further, when a more direct index was employed asking the subject how much he liked the learner, a result approaching significance in the direction predicted in relation to shocking behavior was found. Both of these results while not significant, did endorse the position that as the stooge was viewed more favorably the less he was shocked. As pointed out earlier the paper and pencil techniques tended, at least in this research, to underestimate relationships, whereas behavioral indices provided a more accurate reflection of the subject during the task. Therefore, it was believed that an even stronger relationship between these two variables might be

revealed if behavioral measures were employed.

Implications of This Research

Probably the most important contribution of this investigation was that it provided a means to assess the relative effectiveness of internalized values as opposed to pressure external to the individual as the prime determiner of an individual's moral behavior. That is, prior to this study, no research effort had been aimed at examining the role of internalization on moral behavior. Rather, most researchers had basically been involved solely with the assessment of an individual's moral orientation. Virtually no research existed to link that orientation to its behavioral manifestation in terms of moral action.

The two divergent positions, noted above, were essentially represented by Freud and Reiss. The psychoanalytic view suggested that moral behavior was guided by an internalized set of values, incorporated early in life from the parent and remaining relatively intact throughout adulthood. In times of moral decision making, it was from these internalized values that the individuals sought guidance. Thus, the individual was viewed as operating in relative freedom from external social factors. Reiss, on the other hand, played down the value of any type of internalization concept. Rather he perceived the individual's moral behavior as being molded, reinforced, and surveilled by external forces. It

was to these external cues that the individual turned for direction according to Reiss.

In the examination of the data relating moral orientation and moral behavior, generally no support was uncovered for the internalization theorists. That is, it was determined that based on moral orientation no prediction could be made concerning the subject's performance on a task involving a heavy loading of moral behavior. This finding could have been interpreted so as to question how serious the subjects felt their behavior to be or if they were even aware of the moral implications of their behavior. On the Kohlberg Post Experimental Questionnaire a question concerning the violation of the subject's rights in relation to the shocking behavior was presented to each subject. While 73 per cent of the subjects felt shocking was against the stooge's rights these subjects shocked just as much as the 27 per cent who did not view such a violation. This would suggest then, that despite an awareness of the wrongfulness of their act (moral judgment) the subjects complied with the experimenter's powerful request to shock the subject (moral behavior). This would again raise the issue, as had been done in much of the literature, of the congruence between moral judgment and moral behavior. The implication of this was that although the individual may be aware of the correct course of action (moral reasoning) implementing that course of action might well be another issue. Put another way, while the

moral decision making may involve a heavy reliance upon internalized values (subjects were not told what was right or wrong), the translation of these decisions into moral behavior may be heavily weighted by external considerations (73 per cent of the subjects thought it was wrong, but complied with the experimenter). Hence, rather than having a single theory to explain why an individual behaved in a moral fashion or neglected to do so, these two factors may prove useful not only in illuminating the determinants of that behavior, but also the inherent underlying cognitive base (moral reasoning). No other research has investigated the relationship between moral reasoning and moral behavior, but tended to focus more or less on one or the other. This may suggest why data which was generated in earlier studies supported one or the other theory, but didn't resolve the necessity of having both or detect a relationship between them.

Based on this logic it may be anticipated that as the pressure of the experimenter increased, the more compliance in behavior the subject would provide. Studies by Milgram (1965) and this investigation (pilot), using deception and the forewarning variant of role playing respectively, support this position. However, the most direct comparison in this research, that between experimenter pressure and shocking behavior was not significantly related. It was believed that this occurred because of the role playing variant (pre-

briefing) employed, somewhat diluted the effectiveness of experimenter pressure. This modification of the paradigm's effect was demonstrated by the interaction between experimenter pressure and moral orientation that showed that upon external moral oriented subjects greater pressure produced more shock, but just the opposite relationship occurred with internal moral oriented subjects. This has been interpreted in earlier sections as a by-product of the employment of the prebriefing variant. It was believed by this investigator that if either deception or forewarning had been utilized, the effects of experimenter pressure would have been as predicted. This unexpected phenomenon was given additional support in that experimenter pressure in terms of prods was found to be negatively related to shocking. It is suggested that this was but another manifestation of the unusual relation between experimenter pressure and compliant behavior resulting from the necessary introduction of the prebriefing technique. That is to say that it was the impression of this researcher that had deception or the forewarning variant of role playing been employed, that the result would have supported the findings in the literature that greater pressure produced greater compliance.

Another rather important finding of this research endeavor has been the development of techniques that would permit the studying of behavior in a situation of deep consequences to the participants without violating ethical

standards. Researchers such as Milgram who have developed realistic laboratory situations in which interpersonal relations could be observed have been criticized for the deceptive or unethical nature of their work, despite its meaningfulness to the participants. The research projects that have avoided these ethical pitfalls provided diluted situations that didn't arouse strong emotional feelings or conflicts in the participants. Up to recently, the researcher has had to choose between ethics or meaningfulness. As a result of combining the ideas of Milgram and the role playing research it was possible to develop a realistic and meaningful experimental situation without violating any ethical standards. Greater imagination as exemplified by Zimbardo (1973) can lead to new and sophisticated research designs without relinquishing realism or violating ethics. The role playing techniques which were developed by Willis and Willis (1970), Darroch and Steiner (1971), and Horowitz and Rothschild (1970) are still in their infancy and provide a potentially vital tool for research in the area of moral development. In short, the position of Kelman (1966, 1967), that suitable alternatives to deception are possible was supported by this research. Further, with increasing use of the researcher's imagination as well as sophisticated experimental manipulations, techniques that not only were superior to deception, but also more closely approximate real life situations will be developed.

Future Directions for Research

With the type of methodology developed in this research endeavor, many aspects of the heretofore unexplored areas of moral development research become researchable. Certainly, modifications on the research design as well as the technique can be added as a result of data gained from this very preliminary research effort.

One particular alteration would involve the development of multiple indices to determine moral orientation. Not only would additonal paper and pencil techniques be employed, but behavioral measures, such as those described in the resistance to inner temptation literature, would be used. This might be useful in that a number of indices would possibly provide a better basis for determining moral orientation than a single measure. Further, it would allow for additional analyses of what type of instrument (behavioral or paper and pencil) provides the best means for tapping moral reasoning. Also, the two factor notion behind moral reasoning and moral behavior could be further explored and mechanisms by which these two factors operate could be more closely studied.

A final area for future study would involve the development of new and refinement of old role playing techniques. Clearly, role playing represents an almost unexplored region that could offer a considerable payoff to researchers work-

ing in interpersonal situations. While the applicability of role playing technology has been rather limited, the scope of its impact on psychological research remains to be evaluated. Role playing provides an instrument by which certain areas that have previously been unexplored may be examined in a meaningful way. Still to be considered are the various properties of role playing and its limitations as well as screening devices to determine which subjects and which personality variables best lend themselves to a role playing paradigm.

APPENDICES

APPENDIX A

INSTRUMENTS

KOHLBERG'S MORAL DILEMMAS

FORM B

In Korea, a company of Marines was way outnumbered and was retreating before the enemy. The company had crossed a bridge over a river, but the enemy were mostly still on the other side. If someone went back to the bridge and blew it up, with the head start the rest of the men in the company would have, they could probably then escape. But the men who stayed back to blow up the bridge would probably not be able to escape alive; there would be about a 4 to 1 chance he would be killed. The captain of the company has to decide who should go back to do the job. The captain himself is the man who knows best how to lead the retreat. He asks for volunteers, but no one will volunteer. If he goes himself, the men will probably not get back safely and he is the only one who knows how to lead the retreat.

1. Should the captain order a man to go on this very dangerous mission or should he go himself? Why?

2. What is the best justification for saying it is right to send someone besides himself?

Why or how do you say it is right to save more lives in this case, when it means ordering someone to his death?

3. What is the best or most important reason for saying it is wrong to send someone else, when ordering someone else will save more lives?

4. Does the captain have the right or the authority to order a man if he thinks it best to do? Why?

5. Would a man have the right to refuse such an order? Why?

6. The captain has a family, the men do not. Should that enter into his decision? How?

If he is going to pick someone to go, how should he pick someone? Why?

7. There is some conflict between fairness and survival here. Which is more important or how can he deal with both here? What does fairness mean anyhow and why is it important?

The captain finally decided to order one of the men to stay behind. He thought he should pick one of his two demolition men. Both of these men were trained to use dynamite to blow up bridges or fortifications at the least risk to themselves. One of the demolition men had a lot of strength and courage but was a bad troublemaker. He was always stealing things from the other men, beating them up and wouldn't do his work around camp. The second demolition man he thought of had gotten a bad disease in Korea and was likely to die in a short time anyway, though he was strong enough to do the job.

1. Should the captain send the troublemaker or the sick man? Why?

2. Whose life is worth more, the troublemaker or the sick man? Why is that?

3. The captain knows the sick man has a family, the troublemaker doesn't. Should that enter into the decision? Why?

4. The captain knows that the sick man was a scientist in civilian life who was doing valuable biochemical research toward a cure for cancer. Should that enter into the decision? Why?

5. Does the captain have more right to send one man than the other from the point of view of fairness? Why?

Who has more right to refuse to go, the sick man or the troublemaker? Why?

Two young men, brothers, had gotten into serious trouble. They were secretly leaving town in a hurry and needed money. Karl, the older one, broke into a store and stole $500. Bob, the younger one, went to a retired old man who was known to help people in town. Bob told the man that he was very sick and he needed $500 to pay for an operation. Really he wasn't sick at all, and he had no intention of paying the man back. Although the man didn't know Bob very well, he loaned him the money. So Bob and Karl skipped town, each with $500.

1. If you had to say who did worse, would you say Karl did worse to break in the store and steal the $500 or Bob did worse to borrow the $500 with no intention of paying it back? Why?

2. Which would you rather do, which would make you feel worse stealing like Karl or cheating like Bob?

3. When people say their conscience bothers them what do they mean?

What does someone do when his conscience bothers him?

Do some people have more conscience than others?

Where do you fit there?

Do you think your conscience should be the basis of making a decision, or should you think of other things?

4. What was the worst thing about what Karl did in stealing? Why?

5. What was the worst thing about what Bob did in cheating the man? Why?

6. Does that enter into deciding which was worst? Why?

7. Why shouldn't someone steal from a store or steal anyhow?

8. Bob deceived the old man and agreed to do something he didn't. Why shouldn't someone do that anyhow?

9. Does the law enter into your decision in this case?

10. Both men are caught and brought before the judge. Should one be given more punishment than the other? Why?

In a country in Europe, a poor man named Valjean could find no work, nor could his sister and brother. Without money, he stole food and medicine that they needed. He was captured and sentenced to prison for six years. After a couple of years, he escaped from the prison and went to live in another part of the country under a new name. He saved money and slowly built up a big factory. He gave his workers the highest wages and used most of his profits to build a hospital for people who couldn't afford good medical care. Twenty years had passed when a tailor recognized the factory owner as being Valjean, the escaped convict whom the police had been looking for back in his home town.

1. Should the tailor report Valjean to the police? Would it be right or wrong to keep it quiet? Why?

2. What would be the best or most important reason for reporting him?

3. What would be the best or most important reason for keeping quiet?

4. If Valjean were reported and brought before the judge, should the judge send him back to jail? Why?

5. Would it be unfair or unjust to send him back to jail or would it still be just? Why?

6. Suppose that Valjean had escaped from jail and lived and just lived an ordinary life, instead of building a hospital to help other sick people. Should the tailor report him in that case? Should he be sent to jail? Why?

7. Does a citizen have a duty or obligation to report an escaped convict? Why? What does that mean here?

8. According to the law, a citizen is required to report an escaped convict. Is it morally right to fail to report him in that case?

9. Suppose Valjean was a close friend of the tailor. Does that make a difference in what he should do? Why?

BEHAVIORAL RATING SCALE (PILOT)

Name: _____

Date: _____

Experimental Condition: High Pressure (Authoritarian)
Low Pressure (Friendly)
Low Pressure (Out of room)
Low Pressure (In and out of room)
(Circle one)

Role Playing (Circle one): Pre-Briefing
Forewarning

Voltage	Press	Press more than once (#)	Stop
15			
30			
45			
60			
75			
90			
105			
120			
135			
150			
165			
180			
195			
210			
225			

Voltage	Press	Press more than once (#)	Stop
240			
255			
270			
285			
300			
315			
330			
345			
360			
375			
375			
390			
405			
420			
435			
450			

NOTES:

POST EXPERIMENT QUESTIONNAIRE

DIRECTIONS

Indicate, by checking the appropriate place on each item, your response to each question. The possible responses range along a continuum from "Not At ALL" to "Extremely."

(1) Based on your experience do you feel that learning experiments of this type are useful?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(2) Would you like to be a "learner" in an experiment of this type?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(3) Did you feel like stopping during the experiment?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(4) Did you feel any unusual reactions (i.e. sweating, faster heart beat, increase in body temperature) during this learning experiment?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(5) Was the experimenter convincing and believable in his role?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(6) Would you have preferred the learner to be in the same room as yourself?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(7) To what extent did you feel you hurt the learner during the course of the learning situation?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(8) Would you find it easy to disagree with the experimenter?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(9) The equipment used in this research was quite expensive. Do you believe that the findings of this research could justify such expense?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(10) How anxious would you say you were during the experiment at the point you were the most anxious?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

(11) If you were offered the position as an experimenter in this type of research, would you want it?

Not at all	A little	Somewhat	Moderately	Much	Very much	Extremely

NAME: _____

KOHLBERG'S MORAL DILEMMAS

FORM A

Instructions: Please read the stories carefully. Then respond to the following questions. The most important thing is to clearly and at length, if necessary, explain why you made the decisions you did, i.e., the reasons for choosing the alternatives you chose. Further, please write as clearly and as legibly as you can.

Section I

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000 which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.

1. Should Heinz have done that? Why?

2. Was it actually wrong or right?

3. From what (if any) point of view is it wrong for him to do that? Why?

4. Is it a matter of going against the druggist's rights? Did the druggist have the right to charge that much when there was no law actually setting a limit to the price? Why?

5. Is it the husband's duty or obligation to steal the drug for his wife if he can get it no other way? Why?

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

7. Suppose it wasn't Heinz's wife who was dying of cancer but it was Heinz's best friend. His friend didn't have any money and there was no one in his family willing to steal the drug. Should Heinz steal the drug for his friend in that case, would that be different? Why?

8. <u>If Yes</u>:

   Suppose it was someone dying who wasn't close to you, but there was no one else to help him. Would it be right to steal the drug for such a stranger, is it something he should do for a stranger?

9. This is a case of stealing to save a life, what is there about the wife's life which would make a person think it is right to steal?

10. Suppose it wasn't his wife who was dying but the man's pet dog which he loved. Would he be justified to steal the drug for the life of his loved pet? Why?

11. Heinz broke in the store and stole the drug and gave it to his wife. He was caught and brought before the judge and the jury found him guilty of stealing. Should the judge send Heinz to jail for stealing, or should he let him go free? Why?

12. The judge might think he would steal too if he were the husband. The judge might also think about upholding the law. How should he decide between the two?

Section II

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

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

2. Life is usually a precious thing to preserve, but in this case she'll die soon anyway and is in pain, and wants to die. What, if anything, would make it right or worthwhile to perserve her life in this case?

3. Does the woman have the right to decide what to do with her own life in that case? Why?

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

5. Should the law permit or prohibit it?

6. The doctor finally decided to kill the woman to put her out of her pain, so he did it without consulting the law. The police found out and the doctor was brought up on a charge of murder. The jury decided he had done it, so they found him guilty of murder even though they knew the woman had asked him. What punishment should the judge give the doctor? Why?

7. Would it be right or wrong to give the doctor the death sentence?

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

Section III

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

1. Should Joe refuse to give his father the money? Why?

2. What would be the most important reason for giving his father the money?

3. Does the father have the right to ask for the money? Why?

4. What should be the authority of a father over a son in a case like this or in general? Why?

5. Why should a promise be kept, by the father or by anyone?

6. If the son breaks promises to his father, is that better or worse than if the father breaks promises to his son? Why?

1. What do the words morality or ethics mean for you?

2. What does it mean to say something is morally right or wrong, to say Heinz was morally right?

3. Now I want to get your ideas about whether there is an objective right and wrong or whether it is a matter of personal opinion and different for each individual. For instance you said it was right/wrong for the husband to steal the drug. When you say that an act is right, do you mean it is something you personally feel is right, and would do in the husband's place or is it something that is objectively right, that should be right for any person in the husband's situation? Why?

4. Let's take another example. In some countries or states it's alright to mercy kill or to have abortions, it's permitted by law, in other cases it's against the law. Is something like that really a matter of one thing being right or wrong, or is each society or act of laws equally right?

NAME: _____

Please Read These Instructions:

1. Answer the questions in order. Do not skip around.
2. Do not discuss your responses with other people while answering.
3. Be sure to answer all the items.
4. If you want to write an explanation or comment, feel free to do so. But first check the response you think is most accurate.
5. Most of the questions can be answered with a check ( ).

1. How old are you: _____years, _____months (Average).
2. Check one of the following places which best describes where you were raised as a child. "As a child" means for the most part of your life while growing up (from birth to about 14 years old).

   _____(1) On a farm or in a village (2,500 or less).

   _____(2) In a town (2,500 - 9,999).

   _____(3) In a small city (10,000 - 49,999).

   _____(4) In a medium city (50,000 - 150,000).

   _____(5) In a metropolitan city (150,000 or over).

   _____(6) In a suburb of a metropolitan city close to and almost part of a city.

   Comment: _____

3. Were you the first born, second born, third born, or what in your family?

   I was born _____.

4. First, what was your father's occupation when you were growing up? (1 - 14 years old).

   His major occupation was: _____

What kind of work did he do and in what kind of organization or place did he work?

_____

5. About how much total income do your parents earn yearly, at the present time? (On the average over the past few years, from whatever source?)

_____(1) Less than $3,999.

_____(2) $4,000 - $7,499.

_____(3) $7,500 - $9,999.

_____(4) $10,000 - $14,999.

_____(5) $15,000 - $29,999.

_____(6) $30,000 - $50,000.

_____(7) $50,000 and over.

6. How far did your parents go in school? (Please check for each parent).

1. Father	2. Mother	
_____	_____	(1) Did not complete grade school (1-7 years).
_____	_____	(2) Completed grade school (8 years).
_____	_____	(3) Some high school (9 - 11 years).
_____	_____	(4) Completed high school (12 years).
_____	_____	(5) Some college.
_____	_____	(6) Completed college.
_____	_____	(7) Attained M.A. Degree.
_____	_____	(8) Attained Ph.D. or law degree or M.D.

7. People sometimes talk about the kinds of social classes in America. In your opinion, which one of these terms

comes closest to describing the class that your family belonged (s) to: (1) when you were a child, and (2) at the present time? (If parents are separated, check for the head of the family).

(1) When I was a child	(2) Now
_____	____(1) Upper upper class
_____	____(2) Lower upper class
_____	____(3) Upper middle class
_____	____(4) Lower middle class
_____	____(5) Upper working class
_____	____(6) Lower working class

8. What is your religious preference?

_____(1) Protestant

_____(2) Roman Catholic

_____(3) Jewish

_____(4) Other (Specify) _____

IF Protestant:

A1. What denomination: _____

9. What is your major area of study?

_____Humanities

_____Social Science; Economics; Anthropology

_____Physical Science; Chemistry

_____Biological Science

_____Other (specify) _____

_____Don't know

10. How about your height and weight. First, how tall are you?

_____feet _____inches

11. About how much do you weigh now?

_____0 1 2 3

_____0 1 2 3 4 5 6 7 8 9

_____0 1 2 3 4 5 6 7 8 9

12. Now some general background questions. Do you usually think of yourself as a Republican, a Democrat, an Independent or what?

_____Republican

_____Democrat

_____Human Rights Party

_____Independent

_____R says He has no Preference

13. Are you married, widowed, divorced or separated?

_____Married

_____Single

_____Widowed

_____Divorced

_____Separated

ROTTER LOCUS OF CONTROL SCALE

I. NAME:_____

Age: _____Sex:_____Date of Birth:_____

Race:_____Birth order:_____

II. INSTRUCTIONS:

This is a questionnaire to find out the way in which certain important events in our society effect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you are concerned, and circle that statement. Be sure to select the one that you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. Be sure to find an answer for every choice. In some instances you may discover you believe both statements or neither one. In such cases, be sure to select the one you strongly believe to be the case as far as you are concerned.

III.

1a) Children get into trouble because their parents punish them too much.

b) The trouble with most children nowadays is that their parents are too easy with them.

2a) Many of the unhappy things in people's lives are partly due to bad luck.

b) People's misfortunes result from the mistakes they make.

3a) One of the major reasons why we have wars is because people don't take enough interest in politics.

b) There will always be wars, no matter how hard people try to prevent them.

4a) In the long run people get the respect they deserve in this world.

b) Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5a) 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.

6a) Without the right breaks one cannot be an effective leader.

b) Capable people who fail to become leaders have not taken advantage of their opportunities.

7a) No matter how hard you try some people just don't like you.

b) People who can't get others to like them don't understand how to get along with others.

8a) Heredity plays a major role in determining one's personality.

b) It is one's experiences in life which determine what they're like.

9a) I have often found that what is going to happen will happen.

b) Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10a) 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.

11a) 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.

12a) The average citizen can have an influence in government decisions.

b) This world is run by the few people in power, and there is not much the little guy can do about it.

13a) When I make plans, I am almost certain that I can make them work.

b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14a) There are certain people who are just no good.

b) There is some good in everybody.

15a) 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.

16a) 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.

17a) As far as world affairs are concerned, most of us are victims of forces we can neither understand, nor control-

b) By taking an active part in political and social affairs the people can control world events.

18a) Most people don't realize the extent to which their lives are controlled by accidental happenings.

b) There really is no such thing as "luck."

19a) One should always be willing to admit mistakes.

b) It is usually best to cover up one's mistakes.

20a) It is hard to know whether or not a person really likes you.

b) How many friends you have depends upon how nice a person you are.

21a) In the long run the bad things that happen to us are balanced by the good ones.

b) Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22a) With enough effort we can wipe out political corruption.

b) It is difficult for people to have much control over the things politicians do in office.

23a) 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.

24a) A good leader expects people to decide for themselves what they should do.

b) A good leader makes it clear to everyone what their jobs are.

25a) 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.

26a) People are lonely because they don't try to be friendly.

b) There is not much use in trying too hard to please people, if they like you, they like you.

27a) There is too much emphasis on athletics in high school.

b) Team sports are an excellent way to build character.

28a) 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.

29a) Most of the time I can't understand why politicians behave the way they do.

b) In the long run the people are responsible for bad government on a national as well as on a local level.

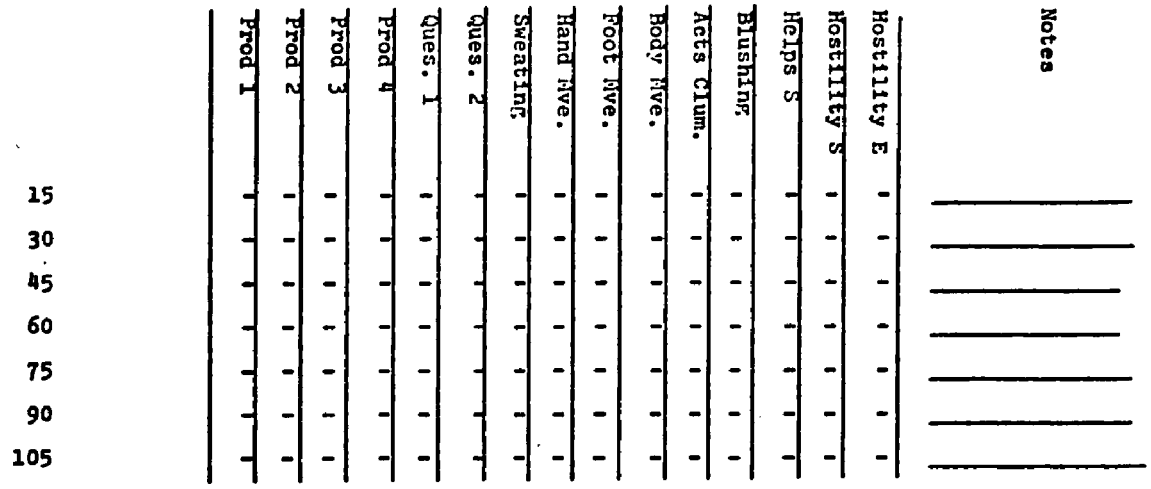
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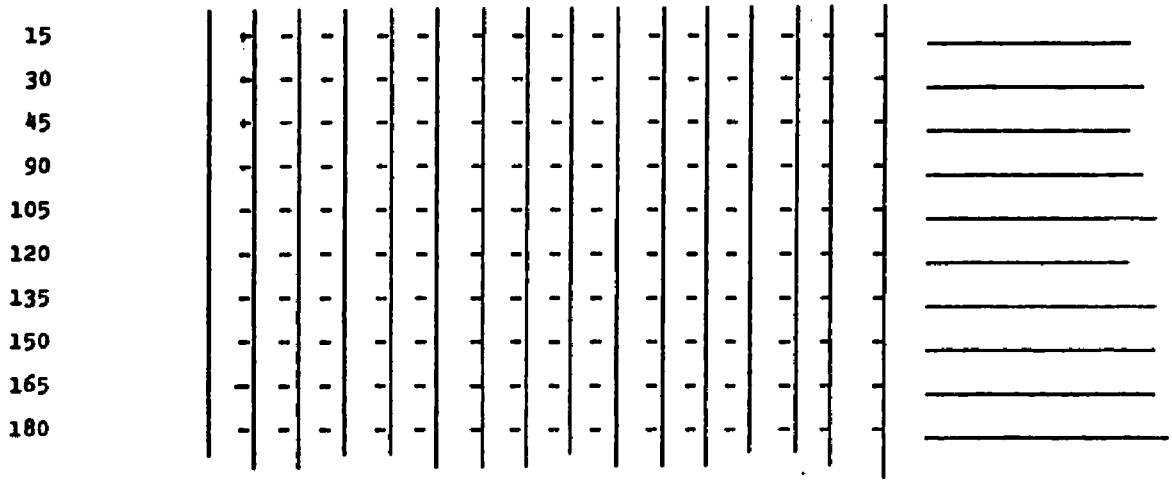
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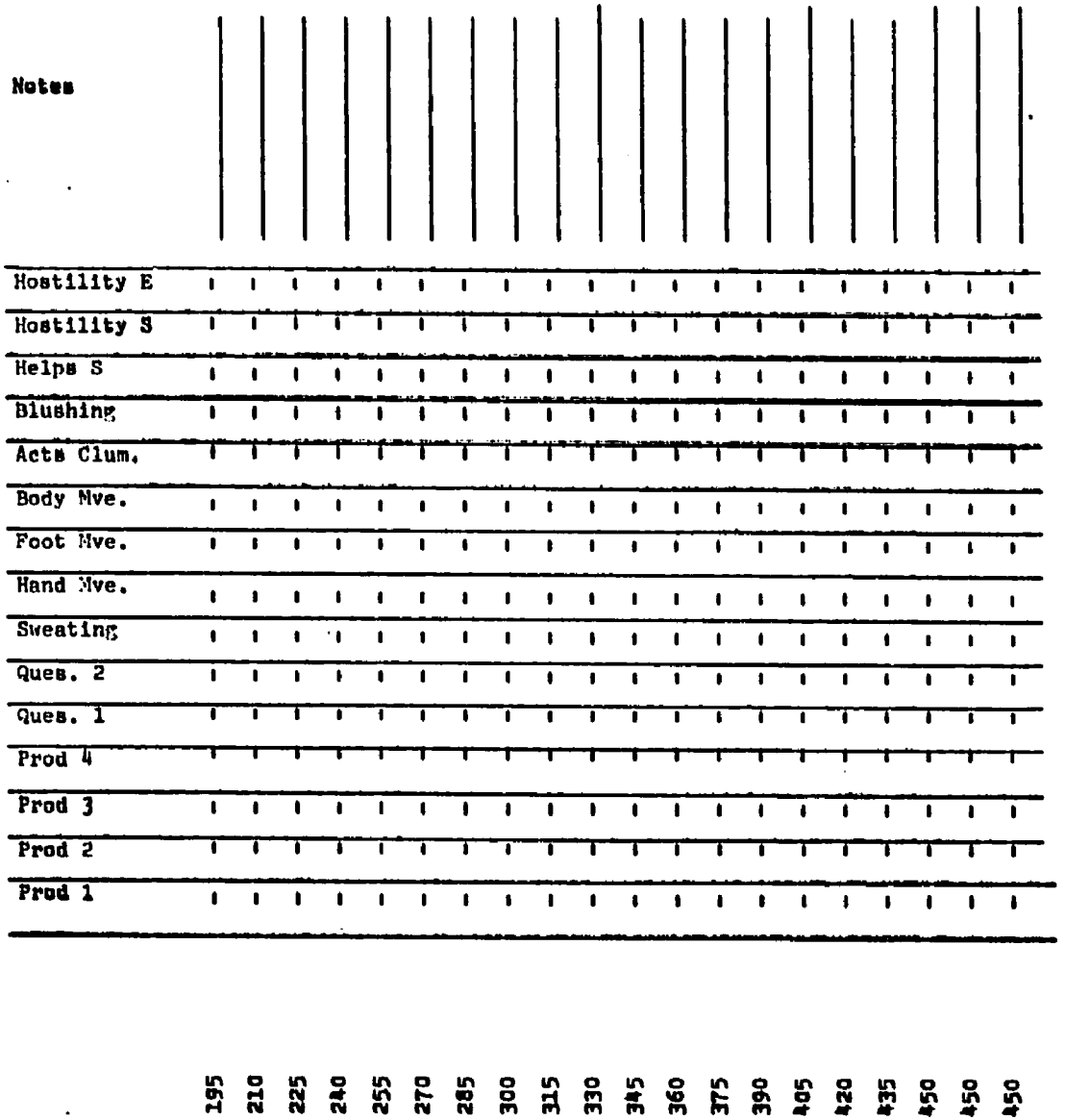
BEHAVIORAL RATING SCALE

Practice Run



Experimental Run




Notes
Hostility E
Hostility S
Helps S
Blushing
Acts Clum.
Body Mve.
Foot Mve.
Hand Mve.
Sweating
Ques. 2
Ques. 1
Prod 4
Prod 3
Prod 2
Prod 1
195
210
225
240
255
270
285
300
315
330
345
360
375
390
405
420
435
450
450
450

Debriefing: _____

SELF-EVALUATION QUESTIONNAIRE

STAI FORM X-2

NAME: _____ DATE: _____

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

		Not At All	Somewhat	Moderately So	Very Much So
1.	I feel calm	1	2	3	4
2.	I feel secure				
3.	I am tense				
4.	I am regretful				
5.	I feel at ease				
6.	I feel upset				
7.	I am presently worrying over possible misfortunes				
8.	I feel rested				
9.	I feel anxious				
10.	I feel comfortable				
11.	I feel self-confident				
12.	I feel nervous				
13.	I am jittery				

	Not At All	Somewhat	Moderately So	Very Much So
	1	2	3	4
14. I feel "high Strung"				
15. I am relaxed				
16. I feel content				
17. I am worried				
18. I feel over-excited and rattled				
19. I feel joyful.				
20. I feel pleasant				

SELF-EVALUATION QUESTIONNAIRE

STAI FORM X-2

NAME: _____ DATE: _____

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

		Almost Never	Sometimes	Often	Almost Always
21.	I feel pleasant	1	2	3	4
22.	I tire quickly				
23.	I feel like crying				
24.	I wish I could be as happy as others seem to be				
25.	I am losing out on things because I can't make up my mind soon enough . . .				
26.	I feel rested.				
27.	I am "calm, cool, and collected" . . .				
28.	I feel that difficulties are piling up so that I cannot overcome them				
29.	I worry too much over something that really doesn't matter				
30.	I am happy.				
31.	I am inclined to take things hard. . .				

		Almost Never	Sometimes	Often	Almost Always
		1	2	3	4
32.	I lack self-confidence				
33.	I feel secure.				
34.	I try to avoid facing a crisis or difficulty				
35.	I feel blue.				
36.	I am content				
37.	Some unimportant thought runs through my mind and bothers me				
38.	I take disappointments so keenly that I can't put them out of my mind				
39.	I am a steady person				
40.	I become tense and upset when I think about my present concerns				

NAME: _____

POST EXPERIMENTAL QUESTIONNAIRE

Directions: Indicate by checking the appropriate place on each item, your response to each question. The responses range along a continuum from "Not At All" to "Extremely."

1. Did you feel like stopping during the experiment?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

2. Did you feel any unusual reactions (i.e. sweating, faster heart beat, increase in body temperature) during this experiment?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

3. Was the experimenter convincing and believable in his role?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

4. Would you have preferred the learner to be in the same room as yourself?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

5. To what extent did you feel that you hurt the learner during the course of the experiment?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

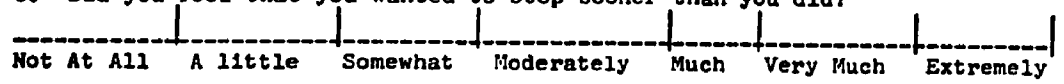
6. Did you find it easy to disagree with the experimenter?

Not At All | A little | Somewhat | Moderately | Much | Very Much | Extremely

7. How anxious would you say you were in the experiment at the point you were the most anxious?



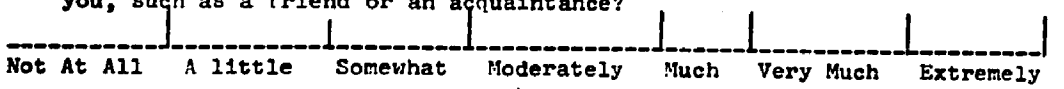
8. Did you feel that you wanted to stop sooner than you did?



9. Would you have preferred to have been more able to openly communicate with the learner?



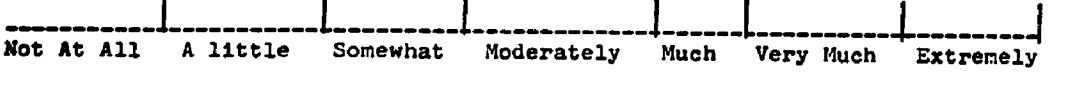
10. Would you have felt better if the learner were in a closer relationship to you, such as a friend or an acquaintance?



11. Did you feel that the experimenter had the right to conduct this type of research?



12. Did you like the learner?



13. Have you seen the Milgram film "Obedience" in your psychology course?

_____ Yes _____ No

KOHLBERG POST EXPERIMENTAL QUESTIONNAIRE

1. Did you think you had an obligation to continue the experiment and administer the shock? Why?

2. Did you think it was wrong to continue and administer the shock? Why?

3. Was administering the shock going against the other person's rights? Why?

APPENDIX B

SUPPLEMENTARY TABLES

TABLE 1

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRODS PRESENTED IN THE FIRST QUARTER AND LEVEL OF SHOCK ADMINISTERED

Shock Level	Low	Medium	High
Number of Prods in First Quarter — Totals	12	29	37
Low	60	0	25	35
High	18	12	4	2

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	45.442	.0000		
Chi-Square	47.917	.0000*		

*Significant at the .001 level.

TABLE 2

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRODS PRESENTED IN THE SECOND QUARTER AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Prods in Second Quarter	Totals	12	29	37
Low	43	12	4	27
High	35	0	25	10

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	40.859	.0000		
Chi-Square	34.561	.0000*		

*Significant at the .001 level.

TABLE 3

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRODS IN THIRD QUARTER AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Prods in Third Quarter	Totals	12	29	37
Low	59	12	25	22
High	19	0	4	15

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	13.379	.0012		
Chi-Square	10.880	.0043*		

*Significant beyond the .01 level.

TABLE 4

A CHI SQUARE ANALYSIS OF EXPERIMENTER PRODS PRESENTED IN FOURTH QUARTER AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Prods In Fourth Quarter	Totals	12	29	37
Low	55	12	29	14
High	23	0	0	23

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	45.526	.0000		
Chi-Square	36.144	.0000*		

*Significant at .001 level.

TABLE 5

A CHI SQUARE ANALYSIS OF EXPERIMENTER PROD ONE AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Prod Number 1 Use	Totals	12	29	37
Low	37	12	9	16
High	41	0	20	21

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	21.387	.0000		
Chi-Square	16.687	.0002*		

*Significant at the .01 level.

TABLE 6

A CHI SQUARE ANALYSIS OF EXPERIMENTER PROD TWO AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Prod Number 2 Use	Totals	12	29	37
Low	32	0	2	30
Medium	30	12	16	2
High	16	0	11	5

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	69.722	.0000		
Chi-Square	59.694	.0000*		

*Significant at the .001 level.

TABLE 7

A CHI SQUARE ANALYSIS OF EXPERIMENTER PROD THREE AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Prod Number 3 Use	Totals	12	29	37
Low	32	0	2	30
Medium	36	12	22	2
High	10	0	5	5

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	69.075	.0000		
Chi-Square	56.016	.0000*		

*Significant at the .001 level.

TABLE 8

A CHI SQUARE ANALYSIS OF EXPERIMENTER PROD FOUR AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Prod Number 4 Use	Totals	12	29	37
Low	34	0	3	31
High	44	12	26	6

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	54.755	.0000		
Chi-Square	46.617	.0000*		

*Significant at the .001 level.

TABLE 9

A CHI SQUARE ANALYSIS OF FOOT MOVEMENT AND SHOCK LEVEL ADMINISTERED

	Shock Level	Low	Medium	High
Number of Foot Movements	Totals	12	29	37
Low	39	11	15	13
High	39	1	14	24

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	13.106	.0014		
Chi-Square	11.638	.0030*		

*Significant at the .01 level.

TABLE 10

A CHI SQUARE ANALYSIS OF BODY MOVEMENT AND SHOCK LEVEL ADMINISTERED

	Shock Level	Low	Medium	High
Number of Body Movements	Totals	12	29	37
Low	43	10	19	14
High	35	2	10	23

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	10.051	.0066		
Chi-Square	9.5961	.0082*		

*Significant at the .01 level.

TABLE 11

A CHI SQUARE ANALYSIS OF HAND-ARM MOVEMENT AND SHOCK LEVEL ADMINISTERED

Shock Level	Low	Medium	High
Number of Hand-Arm Movements Totals	12	29	37
Low 27	9	9	9
Medium 23	2	9	12
High 28	1	11	16

Tests of Independence	Statistic	Significance	DF=4	N=78
Maximum Likelihood	10.773	.0292		
Chi-Square	10.824	.0286*		

*Significant at the .05 level.

TABLE 12

A CHI SQUARE ANALYSIS OF CLUMSINESS AND SHOCK LEVEL ADMINISTERED

	Shock Level	Low	Medium	High
Number of Clumsy Moves	Totals	12	29	37
Low	46	11	17	18
High	32	1	12	19

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	8.1184	.0173		
Chi-Square	6.9330	.0312*		

*Significant at the .05 level.

TABLE 13

A CHI SQUARE ANALYSIS OF BEHAVIORAL ANXIETY SIGNS IN THE FIRST QUARTER WITH LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Signs of Anxiety	Totals	12	29	37
Low	48	11	18	19
High	30	1	11	18

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	7.2934	.0261		
Chi-Square	6.2278	.0444*		

*Significant at the .05 level.

TABLE 14

A CHI SQUARE ANALYSIS OF BEHAVIORAL ANXIETY SIGNS IN THE SECOND QUARTER WITH LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Signs of Anxiety	Totals	12	29	37
Low	41	12	14	15
High	37	0	15	22

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	17.797	.0001		
Chi-Square	13.188	.0014*		

*Significant at the .05 level.

TABLE 15

A CHI SQUARE ANALYSIS OF BEHAVIORAL ANXIETY SIGNS IN THE THIRD QUARTER AND LEVEL OF SHOCK ADMINISTERED

	Shock Level	Low	Medium	High
Number of Signs of Anxiety	Totals	12	29	37
Low	54	12	26	16
High	24	0	3	21

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	26.384	.0000		
Chi-Square	22.743	.0000*		

*Significant at the .001 level.

TABLE 16

A CHI SQUARE ANALYSIS OF BEHAVIORAL ANXIETY SIGNS IN THE FOURTH QUARTER AND LEVEL OF SHOCK ADMINISTERED

Shock Level	Low	Medium	High
Number of Signs of Anxiety	Totals	12	29	37
Low	60	12	29	19
High	18	0	0	18

Tests of Independence	Statistic	Significance	DF=2	N=78
Maximum Likelihood	33.006	.0000		
Chi-Square	25.930	.0000*		

*Significant at the .001 level.

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