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DIMENSION AND AGGRESSIVE BEHAVIOR.

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DIMENSION AND AGGRESSIVE BEHAVIOR

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THE REPRESSIVE-SENSITIZATION PERSONALITY
DIMENSION AND AGGRESSIVE BEHAVIOR

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THE REPRESSION-SENSITIZATION PERSONALITY DIMENSION AND AGGRESSIVE BEHAVIOR

CHAPTER I

INTRODUCTION

Aggression and hostility have long been recognized as an integral part of man's overt and covert behavior and are considered by many as an inevitable human experience (Berko-witz, 1962; Buss, 1961; Freud, 1925; McNeil, 1959; Saul, 1947). According to one of these writers, "the paradox which aggression presents is that, in all its abundance and despite the massive scrutiny it has endured since the beginning of time, it remains as enigmatic as if its presence had not yet been detected by man" (McNeil, 1959, p. 195). In summarizing the significance of aggression and hostility in human behavior, Saul states:

There is no more fateful motive force in man than hostility--it is essential for his survival but it also produces neurosis, criminality, war and social unrest. Resentment, anger, rage, violence, cruelty and similar aggressive, destructive impulses can be subsumed under the term hostility. . . . Hostility occupies a position in dynamic psychology analogous to that of heat in physics. Thermodynamics teaches us that no physical process occurs without the generation of heat and its flow from the hotter to the cooler area. This means

essentially that in every process there is some friction which generates heat. In the psychodynamics of the mental and emotional life, there is probably no impairment, frustration, conflict or friction of any kind which does not result in hostility as a reaction, and thus hostility seeks to express itself in some way (Saul, 1947, pp. 108-109).

The early work of a group of Yale psychologists (Dollard, Doob, Miller, Mowrer, & Sears, 1939) on what came to be known as the frustration-aggression hypothesis did much to stimulate research in overt as well as covert expression of aggression. Attempts to discredit the hypothesis or to show the conditions under which frustration leads to aggression seems to have provided a structure from which to attack the problem more systematically. Most psychologists have come to agree that to understand aggressive behavior one must also study the individual's early experiences, defense mechanisms, and adjustment habits.

All researchers acknowledge the value of understanding the individual's past experiences, but a number of them also stress the present situation as perceived and defined by the individual as vital in determining the form and content of resulting aggressive behavior (Morlan, 1949; Rosenzweig, 1944; Sargent, 1948). Sargent, for example, using a phrase coined by W. I. Thomas, the sociologist, refers to a procedure of "defining the situation" which he describes as "a continuously operating, relatively unconscious perceptual process" (Sargent, 1948, p. 295). According to Sargent, the phenomenon involves more than perceiving as suggested by

Thomas; "it is a kind of active perceiving, interpreting and sizing up a situation with reference to one's potential behavior in it" (Sargent, 1948, p. 295). Lewin's (1951) "psychological environment" and Sherif's (1956) "frames of reference" have elements in common with Sargent's concept. In Lewin's words "behavior and development depend upon the state of the person and his environment, $B = f(P, E)$. In this equation the person (P) and his environment (E) have to be viewed as variables which are mutually dependent upon each other. In other words, to understand or to predict behavior, the person and his environment have to be considered as one constellation of interdependent factors" (Lewin, 1951, pp. 239-240).

The purpose of this experiment, then, is to study the expression of aggression by individuals whose adjustment habits or defense mechanisms are at polar opposites in different interpersonal and task situations. For example, individuals who employ repressive defenses (repressors) as opposed to those who use intellectual and obsessive mechanisms (sensitizers) would seem to "size up" situations and explore their behavior possibilities differently, especially as regards the expression of aggression.

Theories of Hostility and Aggression

Frequently the lay person, as well as the clinician and researcher, uses the terms hostility and aggression inter-

changeably. Berkowitz, for example, (1962) employs the terms synonymously to denote behavior aimed at injury of some object. Many writers (e.g. Buss, 1961) make a systematic distinction between these terms and point to the difficulties of viewing the terms as synonymous and applying them to behavioral events.

Some theories, according to Buss, "deal with aggressiveness and hostility as global variables, and because of the sweeping nature of the statements, there are no precise predictions that can be tested under controlled conditions" (Buss, 1961, p. 183). Other writers, for example Fromm (1947), have made important observations regarding aggressiveness but consider it peripheral to their main theme. The current trend in the theories of aggression is away from a learned-unlearned dichotomy but, because Freud was one of the first researchers to systematically theorize about aggressive behavior, his approach is briefly summarized and presented first.

Freudian views. Aggressiveness played a minor role in Freud's early years of theorizing and it was not until the years following World War I that he, not only expanded his earlier views on aggressive urges as being special occurrences in the psycho-sexual development of the child, but gave aggressiveness a role of greater importance in his theory (Freud, 1925, Vol. 4). Freud postulated a "death instinct" and a "life instinct." The latter consisted of both libido and self-preservative tendencies, with aggressiveness as a

major constituent in each. The individual's struggle in life was conceptualized as a struggle between the death forces and the life forces. The stronger the "death instinct" in a person, the more necessary it was for him to direct aggression outward against objects and people. Aggression which was not directed at others was assumed to be turned back on the self. Presumably, masochism and sadism are a result of the "death instinct." The determinants of the fate of these hostile impulses, according to Freud, are imputed to experiences in the life history of these individuals.

Thompson (1950) in her evaluation of psychoanalysis and its development, summarizes Freud's theory as follows:

In spite of the complexities of Freud's new instinct theory, it included an appropriate new observation, namely, that when a person's security is threatened, he tends to fight. If he cannot fight because the odds are against him, he tends to become masochistic. That is, in a sense, he rises above the situation by getting a kind of pleasure out of it. . . . According to the old theory, hostility and aggression were thought to stem from either the aggressive component of the anal libido or from the feelings of rivalry in the Oedipus situation. There was some general formulation that hate also was an expression of libido.

The questionable point about Freud's theory is the idea that the threat to life and security comes from an innate force within us--destructiveness or the death instinct (Thompson, 1950, p. 54).

Few American psychoanalysts today accept Freud's theory of the death instinct. A group of European analysts who do accept the death instinct idea is divided into the extremists and the moderates. Nunberg (1955) represents the extreme view and emphasizes aggressive manifestations in the

psychosexual development. According to Nunberg, the protection of the ego from all stimuli is the main aim of all aggressive impulses. Waelder (1956) represents a more moderate view and he distinguishes between reactions and essential destructiveness. The latter is believed by Waelder to be instinctive and the former is a reaction to threat, attempts to master the external world, and part of a libidinal drive.

Modified Freudian views. Some psychoanalysts adhere to Freud's initial views of aggression as a reaction to frustration but differ in other respects. Saul (1956) rejects both the death instinct and the aggressive instinct. According to Saul, the genesis of hostility lies in the early formative years, "hostility is a disease of the personality, transmittable from person to person and group to group, and, basically, by contact from parents to children, from generation to generation" (Saul, 1956, p. 27). Saul summarizes his views as follows:

Hostility is a disease of development and has its chief sources within the personality. The distortions which cause it may be in the id (excessive demands, dependence, envy and the like), in the superego (either through hostile images which stimulate hostility or through deficiencies and disorders of standards and ideals), or finally in the ego (the highest faculties), insofar as an individual's whole way of thinking and outlook are warped by the persisting emotional effects of unwholesome childhood influences (Saul, 1956, p. 61).

Alfred Adler's views on aggression, although they date back to 1908, are historically important because they

were initially similar to Freud's ideas but later were revised and bear many resemblances to the formulations of current psychoanalysts (Ansbacker & Ansbacker, 1956). Adler first conceived of aggression as a biological drive (instinct) toward fighting for satisfaction of all needs. He distinguished between "pure" and "modified" aggression and aggression directed against the self. Inverted aggression, according to Adler, occurred only when the impulse was suppressed. The result was anxiety expressed in bodily tremors, blushing, palpitations, sweating, and vomiting. Adler's final formulation on aggression became a noninstinctual view in which aggressive behavior was perceived as a reactive tendency toward overcoming obstacles and everyday life tasks.

Horney (1945) rejects both death and aggressive instincts and attributes aggression and hostility (or moving against people) as a response to "basic anxiety." We can see in Horney some of Adler's views regarding anxiety and aggression. Hostility, according to Horney, is rooted in rejection. The individual who moves against people, Horney states, accepts and takes the hostility for granted, and determines, consciously or unconsciously, to fight. The individual implicitly distrusts the feelings and intentions of others toward himself and rebels in whatever ways are available (Horney, 1945). The normal person is capable of moving toward, away, or against people as the situation

may demand. The neurotic adopts one mode and is incapable of shifting. Munroe also presents a psychoanalytic view on aggression somewhat akin to Freud's instinctual view. She attributes a drive quality to aggression and states "man inherits patterns of response to situations of danger or frustration which may conveniently be called rage" (Munroe, 1955, p. 635). The patterns, according to Munroe, require an external situation interpreted as dangerous or frustrating but operate like drive systems with their own inner tensions.

Thompson's views are somewhat similar to Horney and Munroe's formulation. Thompson states:

Culturally oriented analysts today agree that anxiety appears when something within the person threatens his relation to significant people. However, the inner impulses which threaten security are now seen to be largely forces created by cultural pressures. There are innate drives, but they are not anxiety provoking. Most of the dangerous pressures are created by rage and hostility in reaction to frustration. The innate instincts of sex and aggression considered so powerful by Freud are not believed by these analysts (Fromm, Horney, Sullivan) to be of overwhelming strength in themselves. Rather, the formidable force within is generated by the repression of the resentment and hostility created through the frustration of one's potentialities, "instinctual" and otherwise, by the pressures of the society in which one lives (Thompson, 1950, pp. 121-122).

While Fromm's writings bear the influence of Freudian theorizing, he proposes (1947) there are two kinds of aggression. He distinguishes between a rational "reactive" aggression and an irrational or "character conditioned" hate. The latter is a continuous readiness to hate, lingering within

the person who is hostile rather than reacting with hate to a stimulus from without. Fromm traces the irrational hate to a disturbed psychological development characterized by extreme insecurity in childhood. Rational and irrational hate, according to Fromm, may be actualized by realistic threat but individuals with irrational hate use every opportunity to express aggression regardless of the situation. Stagner (1956) reports similar observations in group interactions. Intense and inappropriate hostility expressed in the absence of any relevant cues suggest the determinants of the aggression lie outside of the group. Stagner contrasts this kind of aggressive reaction to that which is aroused by an attack, threat, or deprivation in the immediate group situation. The inappropriate hostility seems to be expressed stubbornly and indiscriminately while reactive aggression may be adaptive in attempting to eliminate the threat directly.

Hostility as a social psychological drive. Horwitz (1955) presents a theory of hostility as a social psychological drive. He conceives hostility to be generated under conditions of threat. "Just as deficiencies or required states within the organism can produce physiological needs, so deficiencies in requiredness of the behavioral environment can produce psychological needs" (Horwitz, 1955, p. 165). Hostility, according to Horwitz, arises in relation to an individual's felt or experienced threat to his ability

to pursue goals within a given social environment. Hostility is a meta-need brought about by a reduction of the person's expected power in that particular interpersonal situation. Reduction of the individual's legitimate power to pursue and satisfy a particular need in a social environment is viewed as an attack on his ability to function effectively. Hostility then is an attempt to restore one's expected power.

Worchel (1957) proposes that hostility is a drive arising, not as a result of frustration or threat to one's legitimate power, but as a consequence of the inhibition of aggression or the inability of an aggressive response to remove the frustrating or threatening barrier. Much of Worchel's work on hostility is within the context of group interactions where this variable is observed to appear invariably as a pervasive and disturbing force (Veldman & Worchel, 1961; Worchel, 1957a; Worchel, 1957b). Hostility arises when group standards do not permit aggressive responses or attempts to change existing frustrations and threat. The theory contends that hostility persists in group interaction until the original threat is removed or the frustrating situation is no longer perceived as a source of threat.

Frustration-aggression hypothesis. In opposition to a theory of aggression as instinctual is the Yale group (Dollard, et al., 1939) who postulate "aggression is always a consequence of frustration." This group defines aggression as "an act whose goal response is injury to an organism."

The frustration-aggression hypothesis stimulated a barrage of criticism and was later rephrased:

Frustration produces instigations to a number of different types of response, one of which is an instigation to some form of aggression. . . . Instigation to aggression may occupy anyone of a number of positions in the hierarchy of instigations aroused by a specific situation which is frustrating. If the instigation to aggression is the strongest member of his hierarchy, then acts of aggression will be the first response to occur. If the instigations to other responses incompatible with aggression are stronger than the instigation to aggression, then these other responses will occur first and prevent, at least temporarily, the occurrence of acts of aggression (Miller, 1941, p. 338).

The frustration-aggression hypothesis regards aggression as environmentally determined. Aggression is viewed as a characteristic way of mobilizing additional energy when a motivated response sequence is blocked (Dollard et al., 1939). The hypothesis stresses three determinants: (1) the strength of the impulse which is blocked, (2) the degree of interference with the desired response, and (3) the frequency with which this interference occurs. The chief critics of this hypothesis have been Maslow (1941) and Rosenzweig (1944). Maslow specifies what kinds of goal objects are important in the response sequence: "It is only when a goal object represents love, prestige, respect, or achievement that being deprived of it will have the bad effects ordinarily attributed to frustration in general" (Maslow, 1941, p. 365). Rosenzweig distinguishes between non-threatening and threatening stimuli, and it is only the latter which leads to "ego-defensive" reactions leading to aggression. Pastore

(1952) has presented the argument that people accept blockage without resentment and without discernible signs of hostility when blockages are perceived as reasonable in terms of the individual's value system. Pastore (1952) cites situations presented by Doob and Sears (1939) which indicate that arbitrary frustrations led to more aggressive responses than non-arbitrary frustrations. Studies by Allison and Hunt (1959) and Cohen (1955) seem to confirm the importance of the arbitrary-non-arbitrary dimension.

Sargent presents a "conceptual scheme for describing behavior resulting from frustration" which he proposes is consistent with the frustration-aggression hypothesis and supported by experimentation:

Frustration evokes a patterned sequence of behavior whose chief stages or aspects are indicated by the terms frustration, emotion, habit or mechanism, and overt behavior. The nature of each stage of the total process is determined by the interaction of two major functions: the individual's past experience, and the present situation as perceived or defined by the individual (Sargent, 1948, p. 108).

This four-stage scheme is presumably present in all reactions to frustration. The defense mechanisms utilized by the individual may be one or more which may lead to different kinds of overt behavior. Sargent proposes that his hypothesis "makes emotion the central dynamic factor in reaction to frustration, and distinguishes between generalized emotional states (e.g., anger, anxiety) and more specific and directed states or 'feelings' (e.g., hostility, jealousy, inferiority)" (Sargent, 1948, p. 114).

Buss (1961) has made an important contribution to the literature on aggression by presenting a systematic coverage of theoretical formulations, their assumptions, and implication. He states, "the frustration-aggression hypothesis may have been a useful working hypothesis 20 years ago, but it has limited utility today" (Buss, 1961, p. 28). While Buss does not offer a theory, he does have some important things to say about aggression. He argues that "the emphasis on frustration has led to an unfortunate neglect of the other large class of antecedents (noxious stimuli), as well as a neglect of aggression as an instrumental response" (Buss, 1961, p. 28). He distinguishes between different kinds of aggression (e.g., physical, verbal, rejection, active, passive) but the common element in all is that the aggressor delivers noxious stimuli to the victim. Aggression, therefore, is defined as "a response that delivers noxious stimuli to another organism" (Buss, 1961, p. 1). He considers hostility to be "an attitudinal response that endures: . an implicit verbal response involving negative feelings (ill will) and negative evaluations of people and events" (Buss, 1961, p. 12). Hostility can occur in the absence of aggression, and aggression can occur without hostility. The occurrence of aggression is related to the intensity of the hostile response as well as to the habit strength of aggression and the potency of inhibitors of aggression.

The frustration-aggression hypothesis has been accepted

with some modifications, by most psychologists. Berkowitz (1958, 1962) and McNeil (1959) have been the most recent proponents of the frustration-aggression hypothesis. Berkowitz (1962) believes most of the controversy centers on whether every frustration increases the instigation of aggression. He concedes there are nonfrustrating causes of aggressive behavior and that hostility may be directed primarily at the attainment of some goal other than doing injury. His own theoretical formulation is to accept the Dollard et al. hypothesis with the modification that anger and interpretation intervene between the objective situation and the individual's reaction to it. Berkowitz holds that "frustrations produce an emotional state, anger, which heightens the probability of occurrence of drive-specific behavior, namely aggression" (Berkowitz, 1961, p. 49). The actual occurrence of aggressive behavior depends upon stimuli associated with the anger instigator. The strength of the aggressive responses is a function of anger intensity and the "degree of association between the instigator and the releasing cue." McNeil's (1959) comprehensive review is aimed at tracing aggression directly to frustration and fully accepting the frustration-aggression hypothesis.

Summary. Psychoanalytic and neo-psychoanalytic theories, for the most part, emphasize the individual and his aggressive patterns of behavior. The Yale group, Berkowitz, Buss, Horwitz, and Worchel assume a learning approach.

The differences in the theories offered by this latter group seem to be differences of focus on specific variables. There is general agreement, however, that critical periods in early childhood play major roles in later hostile reactions. Most of these theorists also agree that repression or continual inhibition of aggressive responses constitute a threat to personal integration and lead to inappropriate behavior. The antecedents of aggression have been identified as deprivation, frustration, attack, annoyers, and reduction of one's legitimate powers in any particular interpersonal situation.

Aggression and Hostility in the Present Study

The position adopted in the present study considers aggression and hostility in the manner suggested by Buss (1961). Aggression is considered as a personality variable that is enduring and pervasive and defined as "a response that delivers noxious stimuli to another organism" (Buss, 1961, p. 1). It is a class of responses that have become part of a habit system and may be expressed verbally or physically. The antecedents of aggression must involve another organism directly or indirectly. Buss' definition of hostility as an attitudinal response which involves verbal response and negative feelings and evaluations of people and events seems a necessary distinction. Typically, hostility is implicit and consists of mulling over past attacks, rejections, and deprivations. Aggression may have

hostile components and may take the form of negative labels such as "I hate you," "I despise you." These kinds of responses are both hostile and aggressive when delivered to another person.

In this study, overt or covert expression of aggression and hostility respectively is believed to occur in the manner suggested by Sargent (1948). The major thesis proposed by Sargent is that strong emotion (aggression) tends toward overt behavior but is always directed and limited by the individual's adjustive habits and by the way he defines the situation. Individuals who employ repressive defenses have reportedly had past experiences directly opposite from those who use intellectual and obsessive mechanisms (Byrne, 1964). These individuals have been identified as "repressors" and "sensitizers" respectively. The manner in which these individuals express aggression and hostility overtly and covertly can be expected to differ because of their varied past experiences and the way they are likely to perceive and define the present situation. The individual who employs repressive defenses is, by definition, likely to have disavowed hostile aspects about himself and his relationships with others. According to Thompson, however, repressed hostility is a reaction to frustration or hostility from others but repression also "makes us more likely to arouse counter hostility in others, and this, in turn steps up our own hostility and so on"

(Thompson, 1950, p. 148).

Repression-Sensitization as a Dimension of
Behavior in Interpersonal Relations

The personality dimension of repression-sensitization (R-S) has received considerable attention in recent years and has been found useful in predicting interpersonal behavior (Altrocchi, Parsons & Dickoff, 1960; Altrocchi & Perlitsh, 1963; Gordon, 1957). At one end of this personality dimension is the type of behavior usually associated with repression in which the individual employs avoidance mechanisms, denial, and repression of potential threat and conflict as a primary mode of adaptation. "Repressors tend to express agreeable and affiliate behavior and to focus on positive qualities in themselves and others" (Altrocchi & Perlitsh, 1963, p. 812). The opposite end of this continuum is said to reflect the behavior of individuals who tend to be alerted to potential threat and conflict, who respond more readily with manifest anxiety, and who tend to use intellectual and obsessive defenses. Altrocchi and Perlitsh describe the sensitizers as follows:

Sensitizers are approximately identical to Ss who score high on the Taylor Manifest Anxiety Scale. . . and are seen as similar to Eysenck's (1947) neurotic introverts, to patients with symptoms of anxiety and depression, to Rosenzweig's (1945) intro-punitive Ss, and to individuals whom Leary (1957) described as adjusting through self-effacement. Sensitizers tend to see themselves negatively and others in a comparatively positive light (Altrocchi, 1961) but it is a common clinical observation that their behavior is usually less hostile than they think (Altrocchi & Perlitsh, 1963, p. 813).

Byrne (1964) proposes that the two extremes of the repression-sensitization dimension do not represent simply different but equally maladjusted ways of responding to anxiety and conflict. His conclusions based on a review of several dozen studies are that a linear relationship exists between sensitizing defenses and maladjustment (a high score on the R-S scale denotes sensitizing defenses).

Scores on the R-S scale are positively related to tendencies toward alcoholism, the number of deviant responses given on an adjective check list, anxiety, emotional instability, social withdrawal, and a number of MMPI and CPI scales which indicate various types of psychological maladjustment. Those on the repression end of the continuum were found to be higher on the hysteria dimension in one investigation but not in another. Repressors also receive higher scores on a measure of ego strength (Byrne, 1964, p.197).

Several personality tests and scales have been used in research work on repression-sensitization (Altrocchi, Parsons, & Dickoff, 1960; Byrne, 1961; Shannon, 1962; Ullmann, 1958). Byrne (1961) revised the repression-sensitization scale utilized by Altrocchi et al., using 156 items from the Minnesota Multiphasic Personality Inventory (MMPI). Altrocchi's measurement of repression-sensitization via the MMPI utilized three scales (D, Pt, and Welsh Anxiety) as indicative of sensitization and three others (L, K, and Hy denial) as indicative of repression. Byrne's revision is actually a refinement of the scale in which each item is scored only once and all inconsistently scored items are eliminated. This revised scale was found to have a corrected split-half reliability

of .94 and a test-retest reliability (three months) of .85 (Byrne, 1964).

Review of research on the R-S scale. A considerable amount of research has evolved to show that repression-sensitization is a meaningful behavior dimension. One group of studies has tended to focus on the relationship between the individual "repressor" or "sensitizer" and his responses to perceptual and projective tasks. Compared with sensitizers, repressors tend to remember success better than failures in a scrambled-sentence task (Eriksen, 1952), to deny feelings of anxiety as a concomitant of sexual excitement (Byrne & Sheffield, 1964), to forget an anxiety-arousing Blacky picture (Perloe, 1960), to prefer avoidance and forgetting defenses on the Blacky Defense Preference Inquiry (Nelson, 1955), to give significantly less aggressive content on TAT stories (Eriksen, 1951; Tempone, 1963), and to give evidence of inhibition and constriction on the Rorschach and a figure drawing task (Kissin, Gottesfeld, & Dicks, 1957). Byrne (1961) found neither projected aggression to TAT cards nor percentage of emotional words related to the defense measure of repression-sensitization. He does report (1961), however, that repressors had significantly lower sexual scores than sensitizers on the TAT.

Byrne cites a study relating physiological responses to threat which (Lazarus & Alfert, 1963) found repressors

show higher levels of skin conductance and lower levels of discomfort on verbal measures than sensitizers when viewing a movie of a primitive subincision ritual. These authors conclude:

Judging from these Nowlis patterns, verbally derived measures of stress response in the form of disphoric affect interacts with personality variables in a direction opposite from what is found with autonomic indicators. High deniers (repressors) refuse to admit disturbance verbally but reveal it autonomically, while low deniers (sensitizers) are apt to say that they are more disturbed while showing less autonomic reactivity (Byrne, 1964, p. 182).

A series of studies relating to Lazarus and Alfert's (1963) conclusions regarding report of feelings reveal interesting differences among repressors' and sensitizers' self-concept and self-ideal discrepancies. Altrocchi, Parsons, and Dickoff (1960) found that repressors manifest smaller self-ideal discrepancies than sensitizers. These authors conclude this difference resulted from the sensitizers' tendency to attribute more negative qualities to themselves. Sensitizers described themselves as more rebellious-distrustful, aggressive-sadistic, self-effacing, masochistic, and less dominant than repressors. Numerous studies substantiate the finding that sensitizers have a greater self-ideal discrepancy than repressors (Byrne, 1961; Byrne et al., 1963; Lucky & Grigg, 1964). Worchel (1958) found that individuals with a low self-ideal discrepancy were able to show more aggressiveness in interpersonal situations than persons with a high self-ideal discrepancy.

Byrne concludes, "Repressors and sensitizers do not differ systematically in their ideals. Rather, it is their self-pictures which differ markedly with repressors presenting themselves positively and sensitizers negatively" (Byrne, 1964, p.187).

Another series of studies has focussed more on the interpersonal perceptions of repressors and sensitizers. Gordon (1957), for example, in a series of studies asked subjects to predict how their partner in the experiment would answer inventory questions. He found that sensitizers, as compared with repressors, predicted more dissimilarity between partners' responses and their own. In a second study Gordon (1959) found that neither a 45 minute period of interaction nor the partners' actual characteristics seemingly had any effect in the perceived dissimilarities. Altrocchi pursued the issue and found that "differences in assumed dissimilarity between self and others were due primarily to stable differences in self-description and not to any clear differences in perception of others nor to any substantial correlation between perception of others and perception of self" (Altrocchi, 1961, pp. 533-534).

Studies relating the development of repressive and sensitizing defenses to child rearing attitudes have shown interesting differences. Byrne (1964) found that repressors indicate a home atmosphere characterized by permissiveness, acceptance, and confidence. Their mothers were consistent

and high in self-esteem while the two parents had a positive affective relationship with one another. The sensitizers, on the other hand, report a restrictive and rejecting home and lack of confidence in assuming the role of parent. Their mothers were inconsistent, low in self-esteem, and had a negative affective relationship with the father (Byrne, 1964). Byrne cautions that these findings must be cross-validated but cites similar results from at least one other study (McDonald, 1963).

Repression-sensitization and group interaction

Relatively little work has been reported utilizing the R-S dimension in interpersonal situations, i.e., in group interaction. Joy (1963a, 1963b) in an exploratory series of studies used five-person discussion groups selected on the basis of the R-S scale. He had one heterogeneous group with members selected from the entire range of the scale. The other groups studied were relatively homogeneous groups of repressors and sensitizers. The groups were placed in competitive situations to solve a human relations problem. The extreme repressor and the extreme sensitizer groups performed better than the heterogeneous groups. However, in successive competitions, Joy found that the extreme repressors functioned better than the sensitizers. He concluded "these results seemed largely due to the fact that the sensitizers developed rather unbridled hostility

toward each other, toward the problem, and probably toward the experimenter" (Joy, 1963b, p. 3).

Byrne (1964) reports a preliminary investigation of two researchers (Silber & Baxter, 1963) in which repressors and sensitizers were compared on verbal conditioning tasks. Byrne infers from the results obtained that "repressors differ from sensitizers in that they respond more to the implicit demands of the other person when they realize what those demands are. . . Sensitizers, in contrast, appear to reject or resist the demands of the situation" (Byrne, 1964, p. 205).

The present author in an exploratory study designed to investigate the behavior of individuals in heterogeneous groups classified along the repression-sensitization dimension found that expression of aggression was a function of the composition of the groups. Repressors when compared to sensitizers, irrespective of majority-minority groupings, were rated as expressing the greatest amount of hostility and aggression on Bales Categories of Behavior (Bales, 1950). Comparison of groups in which the repressors were in the majority, versus groups in which sensitizers were in the majority, indicated hostility and aggression was expressed more in the sensitizer groups as a function of the individual repressor in those groups. Analysis of the data suggested an interaction effect. Repressors and sensitizers were rated differently as a function of the composition of their groups.

The finding that repressors were rated as expressing the greatest amount of aggression in this experiment presents somewhat of a paradox. In which interpersonal situations does the repressor disavow his hostility and aggression? It is conceivable that repressors are able to express aggression overtly in their interaction with other individuals but avoid expressing hostility (attitudinal responses) on psychological tests such as the Rorschach. The following section focusses on the relationship between projective hostility on the Rorschach and behavioral aggression.

Repression-Sensitization in Relation to
Manifestations of Hostility on the
Rorschach and Overt Aggressive
Behavior

Few investigations of the relationship between the R-S scale and hostility as measured by the Rorschach have been reported in the literature. Byrne (1964) in his comprehensive review of repression-sensitization reports only one such investigation, which is as yet unpublished. Byrne refers to a personal communication with J. F. Lomont who reports a negligible correlation between the R-S scale and hostility as measured by the Holtzman Ink Blot Test (Holtzman, 1961). Byrne reports Lomont found repression-sensitization acts to obscure a relationship between a self report measure of hostility and hostility as measured on the ink blot test. Lomont is reported to have arrived at the following conclusions:

These results . . . are . . . consonant with the clinical assumption that an ink blot test can tap unacknowledged hostility. In keeping with the implications of the clinical belief, repression appears to be an intervening variable which affects the correspondence between self-reports of aggression and aggression measures on an ink blot test. This picture of repression as an intervening variable implies that, given a certain degree of self-reported aggression, the degree of hostility which shows up on an ink blot test is positively related to the degree of repression operating on the self-reported aggression (Byrne, 1964, p.189).

While Lomont's investigation is the only study to relate the MMPI derived R-S scale to projected hostility on the Rorschach, or ink blot variations, other studies have obtained essentially the same dichotomy (repression-sensitization) by empirical means, that is, individuals classified as repressors or sensitizers according to peer ratings and then examined with the Rorschach test. Abrams (1962) designed a study to determine whether a repression-sensitization dichotomy exists in the area of hostility and whether it is constant for various psychic functions--recall, projection and preference. Abrams hypothesized that "those individuals who were hostile and aware of it would respond as sensitizers, while those who were hostile and unaware of it would respond as defenders" (Abrams, 1962, p. 260). Abrams' classification of "defenders" is synonymous with repressor. He also predicted "that an individual giving a sensitization or defensive response in one of the three areas would tend to respond in the same direction in the other two" (Abrams, 1962, p. 260). Finally, sensitizers

were expected to recall, project, and prefer more hostile stimuli than repressors.

The subjects in Abrams' study were student nurses who rated themselves and their peers on the trait of hostility. The following experimental groups were obtained: subjects rated hostile and aware of it (sensitizers); subjects rated hostile and unaware of it (repressors); subjects rated average in hostility who rated themselves in this way. The results show that the sensitizers group projected more hostile symbolism on the Rorschach than the repressed group. Both sensitizers and repressors, however, gave significantly more hostile responses than those subjects who were "average in hostility." Also of particular interest is Abrams' finding that "individuals did not show constancy of response, that is, they varied their response, either sensitization or repression according to the stimulus situation and the response required" (Abrams, 1962, p. 265).

A similar study bearing on the repression-sensitization dichotomy is one by Walker (1951). Comparison of Rorschach content scores with therapists' evaluations of hostility in their patients led Walker to conclude that even repression of hostility did not preclude the perception of hostile stimuli on the Rorschach. Walker's subjects were patients receiving psychotherapy in a Veterans Hospital or clinic. The results in this study also show that the

patient's ratings of his own hostility tended to be negatively related to the perception of hostile content on the ink blots.

Perception of hostile content on the Rorschach has been reported in some instances to have a positive correlation with behavioral aggression (DeVos, 1952; Rader, 1957; Towbin, 1959). Some studies, for example Eriksen and Lazarus (1952), have shown an inverse relationship between projective and behavioral aggression. A curvilinear relationship is reported by Smith and Coleman (1956). Some writers propose there is no clear principle for predicting overt behavior from projective tests (Corr, Forer, Henry, Hooker, Hutt, & Piotrowski, 1960; Gluck, 1955) while others conclude that undisguised aggressive content is only minimally related to overt aggression (Kagan & Moss, 1961). Buss (1961) suggests that the reason some studies of Rorschach hostility and aggressive behavior fail to show a relationship is "Perhaps the Rorschach can assess enduring behavioral trends but not transient ones. Perhaps the procedures for inducing aggression have been faulty. In any event, hostile content on the Rorschach is related only to long-time trends in aggression" (Buss, 1961, p. 137). Presumably, then, the type of person likely to project hostile content on the Rorschach is the individual in whom aggression has become a class of responses that have evolved into a habit system, that is, the individual in whom aggression is probably rooted

in early childhood and has become an enduring characteristic. The line of reasoning developed in the present study is that the expression of aggression is multi-determined by personality factors and the situation as it is perceived and interpreted by the individual. It is expected that "constancy of response" will not occur and that a paradox between the overt and covert expression of aggression exists for sensitizers and repressors.

Conceptual Position of the Present Research

A review of the existing theories of aggression and hostility has shown that these traits develop in the individual's personality as a consequence of certain interpersonal relations throughout life. The manner in which the individual learns to cope with hostile impulses can lead to conflicts and give rise to maladaptive ways of relating to the environment. Repression of these impulses, for example, produces much anxiety and, according to one theorist, can arouse counter hostility in others. It has been shown that individuals identified as repressors and sensitizers differ in their personality development, presumably as a result of home atmospheres, parent-child relationships, and relations with others in general. Some authors have suggested that these individuals develop different patterns of ego control which are related to the degree of hostility attributed to self and others (Altrocchi & Perlitsh, 1963). The line of

reasoning developed in the present study suggests that the expression of hostility and aggression depends upon personality variables characteristic of repressors and sensitizers and to the nature of the situation in which these individuals find themselves, more specifically, the nature of the interpersonal composition of the group within which he behaves. Because of the defense mechanisms reportedly utilized by repressors and sensitizers, the covert, as well as the overt expression of hostility is likely to differ. An experiment designed to study the overt and covert expression of hostility and aggression in individuals with polar defensive mechanisms should add further understanding to this important area of interpersonal relations.

CHAPTER II

STATEMENT OF THE PROBLEM

The purpose of this experiment is to investigate the expression of aggression as a function of: 1) personality, 2) nature of the situation, and 3) composition of groups in a given situation. The study of the expression of aggression has been complicated by definitional problems. A distinction between hostility and aggression has been considered necessary when applying the terms to behavioral events. In this experiment, hostility is defined as the inner state of feeling of animosity, resentment, or anger which may result from ruminations over past attacks, rejections, and deprivations. Aggression is defined as forceful behavior directed toward others. A state of inner hostility may or may not be accompanied by aggression. A person may withhold outer expression of hostility. Further, aggression is not necessarily assumed to be motivated by hostility although it may be.

Both hostility and aggression may be seen as personality traits when they are pervasive characteristics of an

individual. Theoretical formulations of hostility and aggression recognize the multiplicity of variables involved in the development of these personality traits. A review of the literature suggests that certain personality variables and the situation as perceived and defined by the individual are important in predicting the expression of aggression. Study in this important area of behavior is complicated, however, by clinical findings that some hostile individuals withhold aggression.

Recent personality research has shown that a repression-sensitization dimension may be useful in predicting behavior in a variety of situations. Repressors and sensitizers have reportedly had different past experiences and seemingly favor distinctly different adjustive mechanisms especially as regards the expression of aggression. Historically the clinical belief has been that most individuals respond overtly and covertly with a certain degree of constancy. However, one line of research has indicated that sensitizers when compared to repressors project more hostility on projective tests. Another series of studies, using different subjects, has shown that repressors when compared to sensitizers, function better in successive competitions, respond more to the implicit demands of a situation, and express more aggression in interpersonal relations. These paradoxical findings that sensitizers when compared to repressors project more hostility on projective tests but are

less aggressive in interpersonal relations, remain yet to be demonstrated within the same group of subjects.

The first aim, then, of the present experiment is to investigate the expression of hostility and aggression within the same population as a function of personality type and nature of situation. The hypotheses have been derived from the notion that hostility tends to lead to overt aggression but that the expression of aggression is regulated by present perceptions of a situation and characteristics of personality all of which are rooted in the past experiences of the individual. The existence of covert hostility in repressors and sensitizers will be examined in an unstructured situation such as the Rorschach test, while the overt expression of aggression will be studied in structured interpersonal situations. On the basis of the previous experimental evidence, the following hypotheses are offered:

1. Repressors respond to unstructured stimuli (the Rorschach test) with less hostile content than do sensitizers.
2. Repressors manifest more overt aggression than sensitizers in their interaction in task oriented groups.

A second aim of the study explores the expression of aggression as a function of the personalities within the group. Two aspects may be distinguished, the first of which is the behavior of groups as a whole. Considering the previous

reasoning, groups with repressors in the majority would be expected to have a greater degree of aggressive interaction than groups with repressors in the minority. In contrast to Hypothesis 2 which deals with individual repressors and sensitizers regardless of the majority or minority group dimension, the following hypothesis concerns groups as a unit:

3. Groups with a high proportion of repressors manifest more aggression than comparable groups of subjects with a high proportion of sensitizers.

The second aspect of the analysis of group interaction is concerned with differences in repressors and sensitizers behavior as a function of majority or minority group interactions. Individuals in such groups would be likely to perceive and interpret the situation differently leading to differential group behavior. In the face of aggressive majority, the sensitizer might well withdraw or become passive; similarly, the repressor faced with a passive majority might become more aggressive in his interpersonal relations. Pilot experimentation supports the above line of reasoning. Differences in aggressive behavior displayed were maximal when a group of repressors were in the majority and were interacting with a single sensitizer or vice versa. It is reasonable to assume, then, that the composition of the group has a differential effect on the individual repressor or sensitizers' aggressiveness. Therefore:

4. Repressors in a minority are more aggressive, and

sensitizers in a minority are less aggressive, than when each are in the majority.

If, as stated in Hypothesis 2, repressors are indeed more aggressive than sensitizers in their interpersonal relations, the repressors and sensitizers are likely to perceive each other differently on this dimension. Therefore, if asked to describe each other after a period of interpersonal interaction:

5. Repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions.

If, Hypotheses 4 and 5 are confirmed, differences in the subject's descriptions of each other will be found as a function of group composition. Therefore:

6. Repressors in the minority are described by sensitizers as more aggressive than repressors in the majority; similarly, sensitizers in the minority are described by repressors as less aggressive than sensitizers in the majority.

CHAPTER III

METHOD

General Experimental Procedure

The first phase of the study consisted of the identification of repressors and sensitizers through the administration of the R-S scale to all male students enrolled in beginning psychology courses. In the second phase of the study, the measurement of covert hostility via the group Rorschach test was accomplished. The third phase of the study involved the assignment of subjects to discussion groups, which varied as to proportion of repressors and sensitizers. The discussion provided the opportunity for judges to rate the overt expression of aggression and other behavior. The fourth and final phase of the study required that the subjects describe each other on the same personality traits and categories of behavior as used by the judges.

Subjects

The subjects consisted of 120 male white students from a number of introductory psychology courses at the University of Oklahoma. These subjects were selected from a total of

510 freshmen and sophomores who had taken Byrne's (1961) repression-sensitization (R-S) scale during a regular class period.

The frequency distribution of R-S scores for the population from which subjects for the present study were drawn is very similar to Byrne's (1961) normative data (Table 1). Of the 120 subjects selected for the study, 48 students had scored between 19 and 48 and 48 who had scored between 78 and 121 on the R-S scale. These subjects were classified as repressors and sensitizers respectively. The remaining 24 subjects were selected from among those students who had scored around the mid-point of the R-S scale (actual scores ranged from 60 to 65) and were identified as "controls." Subjects within each group were matched for age and socioeconomic background (Hollingshead & Redlich, 1958). They were assigned to groups in such a way as to insure that the five members in each group had no previous acquaintance with each other outside the classroom. The age range for the subjects was 18 to 29 years. All of the above data are summarized and presented in Appendix E.

Rorschach Procedures

During the administration of the R-S scale the subjects were informed that a select few would be asked to participate in later phases of a study on perception. The instructions for the R-S scale were brief and were stated as follows:

This is the first phase of a study on perception. What we are doing today is a personality inventory which takes about 30 to 45 minutes. Later, some of you will be asked to participate in other phases of the perception study. I think you will find this interesting and it will give you an opportunity to become involved first hand with psychological research. Read the instructions on the booklet and start when you are ready.

Table 1.

Frequency Distribution on the Repression-
Sensitization Scale for Byrne and
Fulgenzi Studies

	Frequency Distribution	
	Byrne	Fulgenzi
120 - 129	0	1
110 - 119	2	3
100 - 109	9	13
90 - 99	31	26
80 - 89	35	48
70 - 79	51	67
60 - 69	72	97
50 - 59	100	126
40 - 49	66	77
30 - 39	26	43
20 - 29	1	8
10 - 19	1	1
Mean	63.08	61.98
Standard deviation	17.71	18.41
<u>N</u>	394	510

Two weeks later groups of 15 to 20 subjects were contacted and told they had been selected to participate in another phase of the perception study.

Administration. The Rorschach test was administered by a modified group technique suggested by Mummery (1960) and

Rohrer, Bagby, and Herman (1955). Results of the pilot study indicated instructions and procedures were best followed when the size of the group was limited to 20 students (Fulgenzi, 1964). The Rorschach testing was conducted at the Student Guidance Service facilities of the University of Oklahoma. As the subjects arrived, each was given a booklet of blank paper on which the responses were recorded. The investigator introduced himself and gave a brief explanation of what was to be done. He informed the subjects that the material would be used in the perception study mentioned earlier. The subjects were again informed that a select few would be asked to participate in the final phase of the research at some later date. The following instructions were then given:

Please put your name in the upper right hand corner of the first page of the test booklet. In a few minutes the room will be darkened and you will be shown ten ink blots on the screen, one at a time. You are to write down the things suggested to you by the ink blots. There will be enough light to do this and you need not worry about either spelling or handwriting. You will write your responses in the booklet. Place a Roman numeral "I" at the top of the first page. Use this page to write down your responses to the first card you will see. Begin with a new sheet for each card. You will be allowed three minutes to write down the first three things you see in each ink blot. This test is called the Rorschach test. Each ink blot will be projected on the screen for three minutes. Write down the first three things you can make out on the card; what it might be, what it looks like to you, or what it might resemble. Write these down leaving about a two inch space between each response. (The procedure was demonstrated on the blackboard).

There are no right or wrong answers but we are interested in how well you can communicate what you see. After

we begin, no questions will be answered from the floor, but if you have any difficulty please raise your hand and one of us will come to your seat. Absolute quiet is necessary throughout the test. Are there any questions?

After routine questions were answered, the room was darkened and each Rorschach plate was projected by means of an opaque projector onto a beaded screen for three minutes. Presentation was restricted to the upright position (Mummery, 1960; Rohrer, Bagby & Herman, 1955). Illumination in the room was maintained at a level which was just high enough for recording of the responses. After all of the plates had been projected, the following instructions for the inquiry were given:

Please open your booklets to your first response to Card I. Now each of you has been given a sheet on which small black and white reproductions of the ten ink blots appear. Write your name on this sheet. (At this point Card I was projected on the screen). Now, using the small reproduction of Card I, encircle the part of the blot which you used for your first response to Card I. If you used the whole blot, circle the entire figure and number your response as number 1 by extending a line from the circle in this fashion. (This procedure was demonstrated on the blackboard). For every response show as accurately as possible just what portion of the ink blot you used.

After completing this, describe with as much elaboration as necessary what there was about the ink blot that reminded you of what you saw.

Now to repeat: First, locate your response by circling the part of the blot you used on the location sheet, remember to number each response. Second, in the space you left under each response you wrote down, tell what there was about the ink blot that reminded you of what you saw.

Are there any questions? When you have finished, place the location chart inside your booklet and hand

the booklet to the person at the door as you go out.

The individual cards were projected on the screen again for two minutes and the essentials of the above instructions were repeated for each card. Thus, three minutes were allowed for each blot and two minutes for the inquiry. The location sheets used were those published by Klopfer (The Psychological Corporation).

Scoring criteria. The content of the Rorschach response was analyzed by the Elizur Rorschach Content Test of hostility (Elizur, 1949). This technique has been used extensively with normal subjects in comparing projected hostility and behavioral aggression. (e.g. Cummings, 1954; Elizur, 1949; Goodstein, 1954; Gorlow, Zimet, & Fine, 1952; Sanders & Cleveland, 1953; Lit, 1956; Vernallis, 1955). The subject's responses which contain clear evidence of hostility, such as animals fighting, are assigned a score of 2, while responses containing less clearcut evidence of hostility, such as knife, are given a score of 1. The total score of a protocol was used as a quantitative indication of amount of hostility. The complete scale and several examples of scoring are contained in Appendix A. In this study, only the first three responses to each card were used thus eliminating variations in the number of responses.

Scoring reliability. The Rorschach protocols were coded to obscure the subject's identity and were then analyzed by the technique suggested by Elizur (1949). The

experimenter (rater A) and a graduate student (rater B) familiar with the Elizur technique, independently scored the protocols. A Pearson product-moment correlation between the experimenter's scoring and the graduate student's results yielded a correlation of .86, which is comparable with the .82 agreement reported by Elizur (1949).

Group Task Procedures

In order to investigate the overt expression of aggression, a group task was developed: the joint construction of a story in response to a stimulus card (Card 18 GF of the Thematic Apperception Test).

Twelve groups of subjects were formed in which repressors were in the majority (3 repressors, 1 sensitizer, and 1 control) and 12 groups in which sensitizers were in the majority (3 sensitizers, 1 repressor, and 1 control). This ratio of repressors, sensitizers, and controls was used to investigate the hypothesis that composition of the group is a factor in the expression of aggression.

The same guidance service facilities used in the Rorschach administration were used for the group discussions. These facilities are particularly well suited for the present study because of a large waiting room supplied with counseling literature, colorful illustrations on bulletin boards, and a variety of popular magazines. Even though the group sessions were conducted in the evening, other students not

involved with the study also used the waiting room facilities. Thus, because of the size of the waiting room and its many other attractions, interpersonal relations were minimal. As the subjects arrived for the study, they were met by the investigator and asked to wait a few minutes. They were invited to look through the various magazines and counseling literature but were not introduced to other subjects who may have arrived earlier. No discussions between the subjects were observed as they waited for others to arrive.

At the appointed time, the five subjects were invited into another room and asked to sit at a table which allowed for easy viewing of each other. At the far end of the room (about 30 feet away) three judges casually talked with each other, ignoring much of the procedure going on. The subjects were introduced to the judges and told they were going to observe this aspect of the perceptual study. The subjects were introduced to each other and given name cards with first names printed in large letters. They were asked to place the card in front of them so that the judges and the other subjects could easily see them. The investigator briefly explained the procedure, stating that written instructions would be provided for the task. They were also told they would not be allowed to ask any questions once the task, which would last for thirty minutes, was underway.

Results of the pilot study show that the behavior displayed by students interacting with each other in a period of

one half hour is sufficient to enable the judges to make reasonably accurate judgments about the interaction (Fulgenzi, 1964). It was also found that college students were more involved with each other if the task had some tangible aspects that required joint participation. Thus, the group's task was to construct a story about Card 18 GF. This card contains two figures standing at the foot of some stairs with a somewhat obscure background. The picture and written instructions were presented to each subject.

Directions:

Each member of the group has a picture of two people. All the pictures are exactly the same. The group's task is to construct a story about this picture. Remember that this is a study on perception. The group must work together and make up a story--one story; however, your impressions, interpretations, and contributions are just as important as the next guy's ideas. The story is to be written by one of the members in your group. In the process of making up the story, be sure to tell something about what is going on in the picture, what led up to this situation, and finally how does the story end. Make the story as interesting as you can and include something about what the characters are thinking or saying.

The story is to be turned in to the examiner at the end of one half hour. Handwriting or spelling is not particularly important. You will be told when 25 minutes have elapsed indicating you have 5 minutes in which to finish.

Judges

The judges were three psychologists, one a recent Ph.D. graduate and the other two within a few months of completion of the Ph.D. They had approximately the same amount

of training in clinical psychology. The judges' task was to rate the subject's aggressive behavior on eight categories of behavior selected from Bales Interaction Process Analysis (1950) and to indicate presence (true) or absence (false) of a number of personality traits from the Minnesota-Ford Pool of Phenotypic Personality Items (Meehl, Schofield, Glueck, Studdiford, Hastings, Hathaway, & Clyde, 1962). The Bales categories had been shown in the pilot study (Fulgenzi, 1964) to be both relevant and capable of being reliably rated. The judges in the pilot study attained 70% agreement or better on 45 of 60 ratings made.

The pilot study also revealed there were more varieties of aggressive interaction between subjects than could be reflected in these categories of behavior. Therefore, based on a review of tape recorded group discussions from the pilot study, 25 phenotypic personality items were also selected for the evaluation of the group's interaction (Appendix C.). These personality traits are a part of a list of 1222 items compiled by two empirical techniques: first, from behavioral episodes reported in various professional and literary publications and, second, by canvassing personality and clinical psychologists for sources and lists of traits and items (Meehl et al., 1962).

Practice sessions were provided for the judges so that they could familiarize themselves with the categories and the phenotypic personality items. The groups in these

practice sessions had the same instructions and tasks as the subjects used in the study but were not included in the data analysis. In addition, the judges met with the author and discussed the wording and meaning of each item wherever some disagreement arose after each practice session. The judges were able to attain between 70 and 81 per cent agreement on the categories and the personality traits in rating the groups during the study. Agreements between the judges' ratings on the Bales categories of behavior were as follows: judges A and B 81 per cent, A and C 75 per cent, B and C 78 per cent. Agreements on the judges' ratings on the Minnesota-Ford traits were: judges A and B 70 per cent, A and C 71 per cent, B and C 70 per cent.

The following is a list of the categories of behavior by which the judges rated the subjects' interactions on a five point scale. These eight categories of behavior were selected from Bales (1950) because they reflect different areas of "Social-Emotional Problems" (categories 1-3) and several varieties of aggressive behavior (categories 4-8) on which repressors and sensitizers differed during pilot experimentation. Appendix B contains the more detailed definitions.

1. Shows tension release by joking, laughing, clowning, or "kidding." Includes remarks made to smooth over some tension.
2. Shows passive acceptance, is modest, humble, unassertive, retiring, and contributes little.
3. Shows active concern to arrive at solutions or decisions and to adopt a plan of action or resolution.

4. Attempts to control, regulate, govern, direct, or supervise in a manner in which freedom of choice or consent for the other person is greatly limited or non-existent.
5. Shows stubborn and resistive behavior. Is non-compliant, unwilling, or disobliging and resists efforts or imagined efforts of some one to take some satisfaction from him.
6. Attempts to deflate others' status by overriding their conversation, interrupting, belittling, ridiculing, and making fun of them.
7. Attempts to excite, amaze, fascinate, entertain, shock, intrigue, or amuse others as a means of raising his own status.
8. Shows emotional reactions such as being cranky, uncongenial, touchy, irritable, and ill-tempered. Is aggressive, combative, belligerent, quarrelsome, or argumentative.

Subjects' Perceptions of Each Other

After construction of the TAT story by the group, the subjects were told the final phase of the study was to see how they had perceived each other. The items from Bales Categories of Behavior and the Minnesota-Ford Pool were distributed to each subject. A brief explanation was given of the True-False answer sheet to be used with the personality traits and the five point scale for the categories of behavior. Each subject was then directed to a private room where he rated the others and himself. A picture of the group taken during the discussion was posted in a central location and the subjects were invited to refer to it for recalling the group members' names, etc. The written instructions regarding the categories of behavior and person-

ality traits were as follows:

The final phase of this study is to see how well you perceive various aspects of interpersonal relations. Please rate each member of your group and yourself on each of the items contained below. Be as accurate as possible and make sure that you answer every item even if it is necessary to guess. The first set of items, 1 through 8, are to be rated on a five point scale. That is, a rating of 1 would indicate that particular behavior was "not displayed at all." A rating of 5 would indicate the behavior was "very strongly displayed." Read each item carefully and decide how strongly, if at all, that particular behavior was displayed by each member of the group and by yourself. Enter the numerical rating in the spaces provided. Refer to the table below in making your ratings. Remember to rate each person on all of the items. (This procedure was demonstrated on the board).

1. Not displayed at all
2. Slightly displayed
3. Moderately displayed
4. Strongly displayed
5. Very strongly displayed

Instructions for the Minnesota-Ford Pool phenotypic personality traits were as follows:

Directions:

Read each item carefully and decide whether it is True or False as applied to each member of your group and yourself. Be sure to answer every statement even if you have to guess, but try to be as accurate as possible. Place a T or F in the spaces provided.

Summary of Experimental Design

The sequence of events, the variables examined, and the measurements used are summarized in Table 2 and may be described briefly as follows: The initial phase of the study was the identification of repressors and sensitizers by administering the R-S scale to 510 elementary psychology students. Phase II was the measurement of covert hostility by

the Elizur Rorschach Content Test of hostility (RCTh). In Phase III, the overt expression of aggression was observed in group interaction as subjects jointly constructed a story to Card 18 GF of the TAT. Eight categories of behavior from Bales Interaction Process Analysis (1950) and 25 phenotypic personality items from the Minnesota-Ford Pool (1962) were the basis for rating the subjects' behavior. Ratings were made by three psychologists who had attained proficiency with these scales. The study concluded with phase IV in which the subjects rated themselves and each other by means of Bales categories of behavior and the Minnesota-Ford Pool of Phenotypic Personality Traits.

Table 2
Phase Sequence of Experimental Design

Phase	Variable	Instrument
I	Selection of repressors and sensitizers	Byrne's R-S scale
II	Covert expression of hostility	Elizur Rorschach Content Test
III	Overt expression of aggression	Bales categories of behavior. Minnesota-Ford Pool of phenotypic personality traits.
IV	Post discussion perception of aggressive behavior	Bales categories of behavior. Minnesota-Ford Pool of phenotypic personality traits.

CHAPTER IV

RESULTS

The tests of hypotheses will follow the order in which they were stated in Chapter II. The first aim of the experiment was to investigate the expression of hostility and aggression within the same population as a function of personality type and nature of the situation (covertly in an unstructured situation and overtly in a structured interpersonal situation). The hypotheses which relate to these situations are:

1. Repressors respond to unstructured stimuli (the Rorschach test) with less hostile content than do sensitizers.

2. Repressors manifest more overt aggression than sensitizers in their interaction in task-oriented groups.

These hypotheses state that a paradox will be found on the expression of hostility and aggression by repressors and sensitizers in covert and overt situations.

The group means and standard deviations on the RCTh are presented in Table 3.

Table 3

Means and Standard Deviations of RCTh Scores for
Repressors, Sensitizers, and Controls
(Rater A, Rater B)

Group	Rater A		Rater B	
	Mean	S.D.	Mean	S.D.
Repressor (<u>N</u> 48)	5.13	3.51	3.90	3.07
Sensitizer (<u>N</u> 48)	6.06	4.41	4.46	3.67
Control	4.42	3.11	3.08	2.48

A Pearson product-moment correlation between Rater A and Rater B yielded an $r = .86$. To determine whether there were any significant differences between the RCTh scores of repressors, sensitizers, and controls, separate t tests on each Rater's results were made. Table 4 shows there were no significant differences between repressors and sensitizers although a trend is indicated between sensitizers and controls. Hypothesis 1 is not confirmed.

In order to test Hypothesis 2, the subject's interaction in the task oriented groups was rated by three psychologists using Bales categories of behavior (Bales, 1950). The categories dealing with aggression are:

4. Attempts to control, regulate, govern, or supervise in a manner in which freedom of choice or consent for the other person is greatly limited or non-existent.

5. Shows stubborn and resistive behavior; is non-compliant, unwilling, or disobliging and resists efforts or

Table 4

t Tests Between RCTh Scores of Repressors and
Sensitizers, and Sensitizers and Controls
(Rater A, Rater B)

Groups	Rater A		Rater B	
	<u>t</u>	<u>P</u>	<u>t</u>	<u>P</u>
Repressors vs. Sensitizers	1.14	---	.81	---
Sensitizers vs. Controls	1.53	.10 ^a	1.64	.10 ^a
Repressors vs. Controls	.83	---	1.11	---

^aOne-tail test.

imagined efforts of someone to take some satisfaction from him.

6. Attempts to deflate others status by overriding their conversation, interrupting, belittling, ridiculing, and making fun of them.

7. Attempts to excite, amaze, fascinate, entertain, shock, intrigue, or amuse others as a means of raising his own status.

8. Shows emotional reactions such as being cranky, uncongenial, touchy, irritable, and ill-tempered. Is aggressive, combative, belligerent, quarrelsome, or argumentative.

The three judges' ratings of each subject were summed and means obtained for repressors and sensitizers on each category of behavior. The group means and standard deviations of the judges' ratings, using Bales categories of behavior, of repressors and sensitizers in their interaction in

task oriented groups are listed in Table 5 and shown graphically in Figure 1. The t tests of these data reveal significant differences between the judges' ratings of repressors and sensitizers on the amount of aggression displayed (sum of categories 4 - 8) in their interactions ($P < .025$). Chi-square analysis using scores above and below the median also confirms these results ($\chi^2 = 6.10$, 1 df, $P < .01$).

Table 5

t Test Between Judges' Ratings of
Repressors and Sensitizers on
Bales Categories of
Aggressive Behavior

Categories	Repressors Mean	(N 48) S.D.	Sensitizers Mean	(N 48) S.D.	<u>t</u>	<u>P</u>
4	9.44	4.18	7.02	3.50	3.05	.005
5	8.46	3.86	7.00	3.28	2.01	.025
6	8.44	3.93	6.77	3.28	2.24	.025
7	8.04	4.08	6.48	3.37	2.04	.025
8	6.63	3.11	6.08	3.07	.78	---
Sum 4 - 8	41.00	17.14	33.35	14.64	2.33	.025

Categories of behavior which Bales (1950) describes as another area of "Social-Emotional Problems" and also used by the judges in rating the subjects' behavior are:

1. Shows tension release by joking, laughing, clowning, or "kidding." Includes remarks made to smooth over some tension.

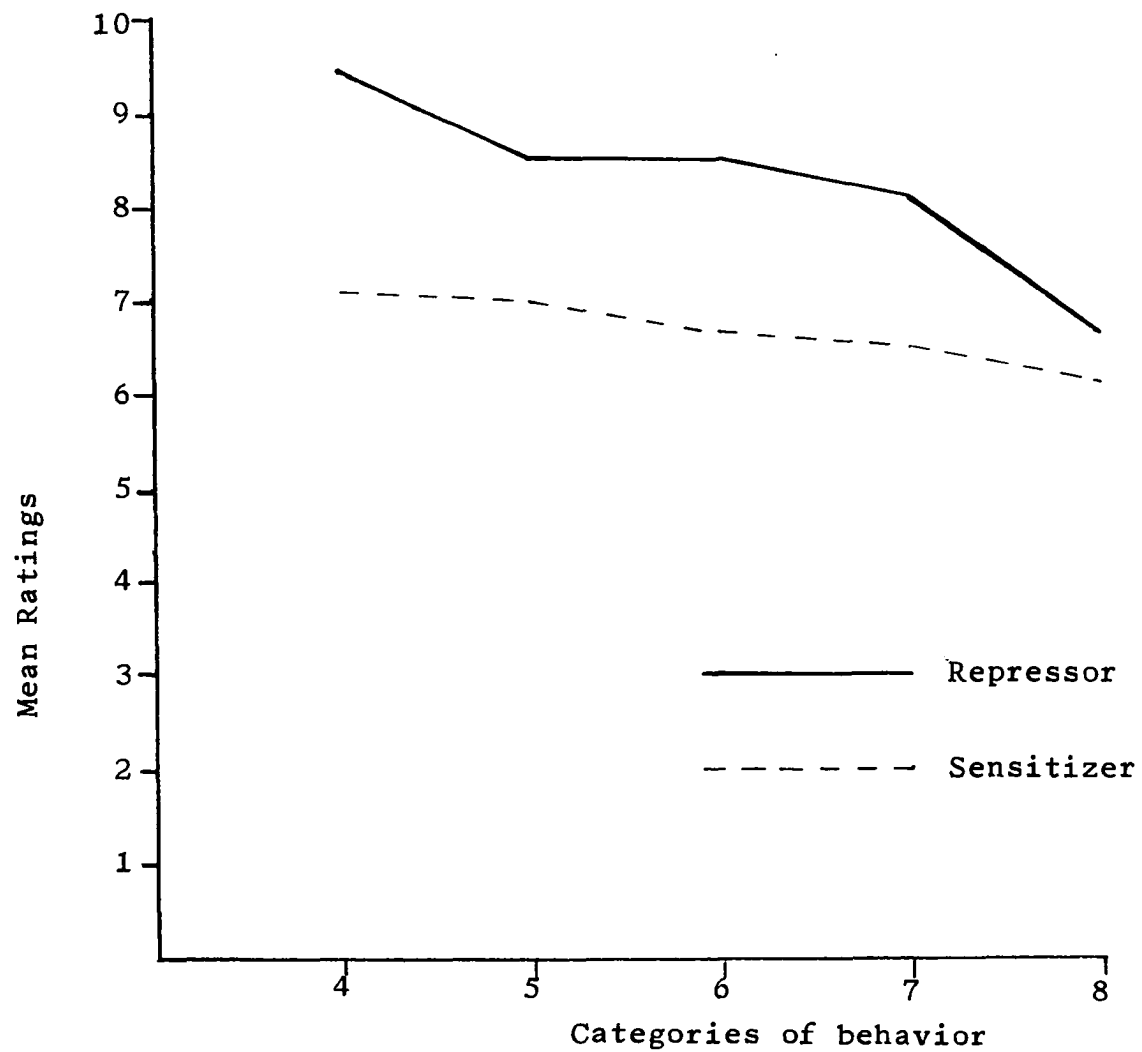


Fig. 1. Judges' ratings of repressors and sensitizers using Bales categories of aggressive behavior

2. Shows passive acceptance, is modest, humble, unassertive, retiring, and contributes little.

3. Shows active concern to arrive at solutions or decisions and to adopt a plan of action or resolution.

A comparison of group means and standard deviations of the judges' ratings, using the above categories of behavior, of repressors and sensitizers in their interactions in task oriented groups are listed in Table 6 and shown graphically in Figure 2. Significant differences exist between the judges' ratings of repressors and sensitizers on these categories of "Social-Emotional Problems."

Table 6

t Tests Between Judges' Ratings of Repressors and Sensitizers Using Bales Categories of Social-emotional Problems

Categories	Repressor		Sensitizer		<u>t</u>	<u>p</u> ^a
	Mean	SD	Mean	SD		
1. Tension release	7.67	3.69	6.19	3.02	2.14	.05
2. Passive acceptance	6.10	3.59	8.15	3.78	2.70	.01
3. Active concern	9.73	3.64	8.19	3.38	2.13	.05

^aTwo-tail test.

The group means and variances of the judges' ratings, using the Minnesota-Ford Pool of phenotypic personality traits (traits of aggression), of repressors and sensitizers in their interpersonal interaction in task oriented groups are

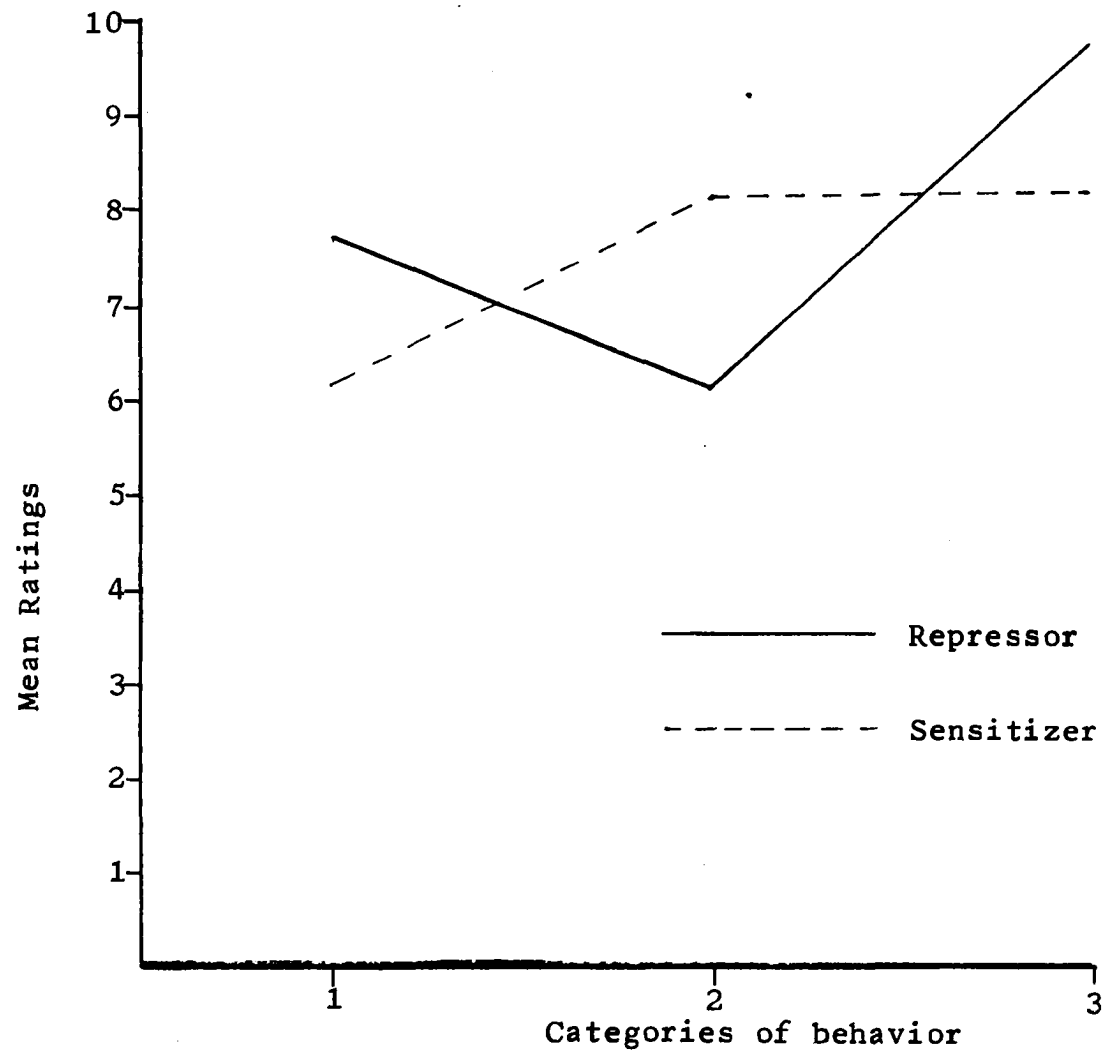


Fig. 2. Judges' ratings of repressors and sensitizers using Bales categories of social-emotional problems

listed in Table 7. The variances were so extreme that a non-parametric test, chi-square, was used to determine whether there were any significant differences between the judges' ratings of repressors' and sensitizers' behavior.

Table 7
Means and Variances of the Judges' Ratings
Using the Minnesota-Ford Pool
of Personality Traits

Groups	Mean	Variance
Repressor (N 48)	48.50	225.30
Sensitizer (N 48)	18.23	535.92

The number of repressors and sensitizers above or below the median on the Minnesota-Ford Pool of Phenotypic Personality Traits is presented in Table 8. A significant difference between the judges' ratings of repressors and sensitizers is indicated ($P < .01$).

Table 8
Number of Repressors and Sensitizers Above or Below
the Median on the Minnesota-Ford Pool of
Phenotypic Personality Traits

	Mdn. 48.5	
	Above	Below
Repressor	30	18
Sensitizer	18	30
	$\chi^2 = 6.07$	df 1 $P < .01$

Hypothesis 2 is confirmed by both the Bales categories of behavior and the Minnesota-Ford Pool of personality traits.

The second aim of the study was to explore the expression of aggression as a function of the personalities within the groups. The hypothesis which pertains to this aim is:

3. Groups with a high proportion of repressors manifest more aggression than comparable groups of subjects with a high proportion of sensitizers. Twelve groups in which repressors were in the majority (3 repressors, 1 sensitizer, and 1 control) were compared with 12 groups in which sensitizers were in the majority (3 sensitizers, 1 repressor, and 1 control).

The group means and standard deviations of the judges' ratings, using the aggression categories from Bales' list, are presented in Table 9. Despite consistently higher mean scores for repressor groups, analyses of these data yield non-significant t ratios. The judges' ratings of these groups with the Minnesota-Ford Pool traits also yields a non-significant t ratio of 1.46 (one-tail test).

During the study, the judges noted that not all of the interaction that was going on in the groups could be captured by individual ratings. They suggested rating the amount of aggression displayed by the remaining groups as a unit (6 repressor groups and 8 sensitizer groups remained). Their ratings of the remaining groups were global impressions based on their observations of the previous 10 groups. Rat-

Table 9

Means and Standard Deviations of the Judges' Ratings,
Using Bales Aggression Categories of Behavior
(Repressor groups and Sensitizer groups)

Categories	Repressor Groups Mean	S.D.	Sensitizer Groups Mean	S.D.	t	p ^a
4	8.32	4.10	7.93	3.89	.53	---
5	8.05	3.86	7.20	3.14	1.31	.10
6	7.63	3.85	7.20	3.25	.65	---
7	7.28	3.81	6.90	3.64	.71	---
8	6.30	3.18	6.17	2.82	.24	---
Sum 4 - 8	37.98	16.66	35.40	15.11	.88	---

^aOne-tail test.

ings of the groups as a unit were made on a 10 point scale. Group means and standard deviations of the amount of aggression displayed by the groups as a unit are listed in Table 10.

Table 10

Means and Standard Deviations of Judges' Ratings
of Aggressive Behavior Within
the Groups as a Unit

Groups	Mean	S.D.
Repressor (<u>N</u> 6)	23.66	2.86
Sensitizer (<u>N</u> 8)	14.00	5.91

Significant differences between the groups is clearly indi-

cated ($t=3.31$, $p<.01$). Thus despite the fact that summing across individuals does not give rise to significant differences, using the whole group as a unit for judging interaction gives rise to quite significant results.

The next hypothesis assumes that the composition of the group has a differential effect on the individual repressor or sensitizer's aggressiveness. The hypothesis stated was:

4. Repressors in a minority are more aggressive, and sensitizers in a minority are less aggressive, than when each are in the majority.

Means and standard deviations of the judges' ratings using Bales categories of aggressive behavior of minority and majority subjects are listed in Table 11 and presented graphically in Figure 3.

Table 11

Means and Standard Deviations of Judges' Ratings
Using Bales Categories of Aggression

Categories	Repressors				Sensitizers			
	Majority		Minority		Majority		Minority	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
4	9.56	4.06	9.08	4.43	7.03	3.64	7.00	3.03
5	8.75	3.88	7.58	3.66	6.69	2.99	7.92	3.38
6	8.58	3.94	8.00	3.83	6.64	3.21	7.17	3.32
7	7.69	3.97	9.08	4.11	6.14	3.07	7.50	3.84
8	6.69	3.22	6.42	2.78	5.86	2.94	6.75	3.32
Sum 4-8	41.28	17.03	40.16	17.55	32.36	14.41	36.33	14.93

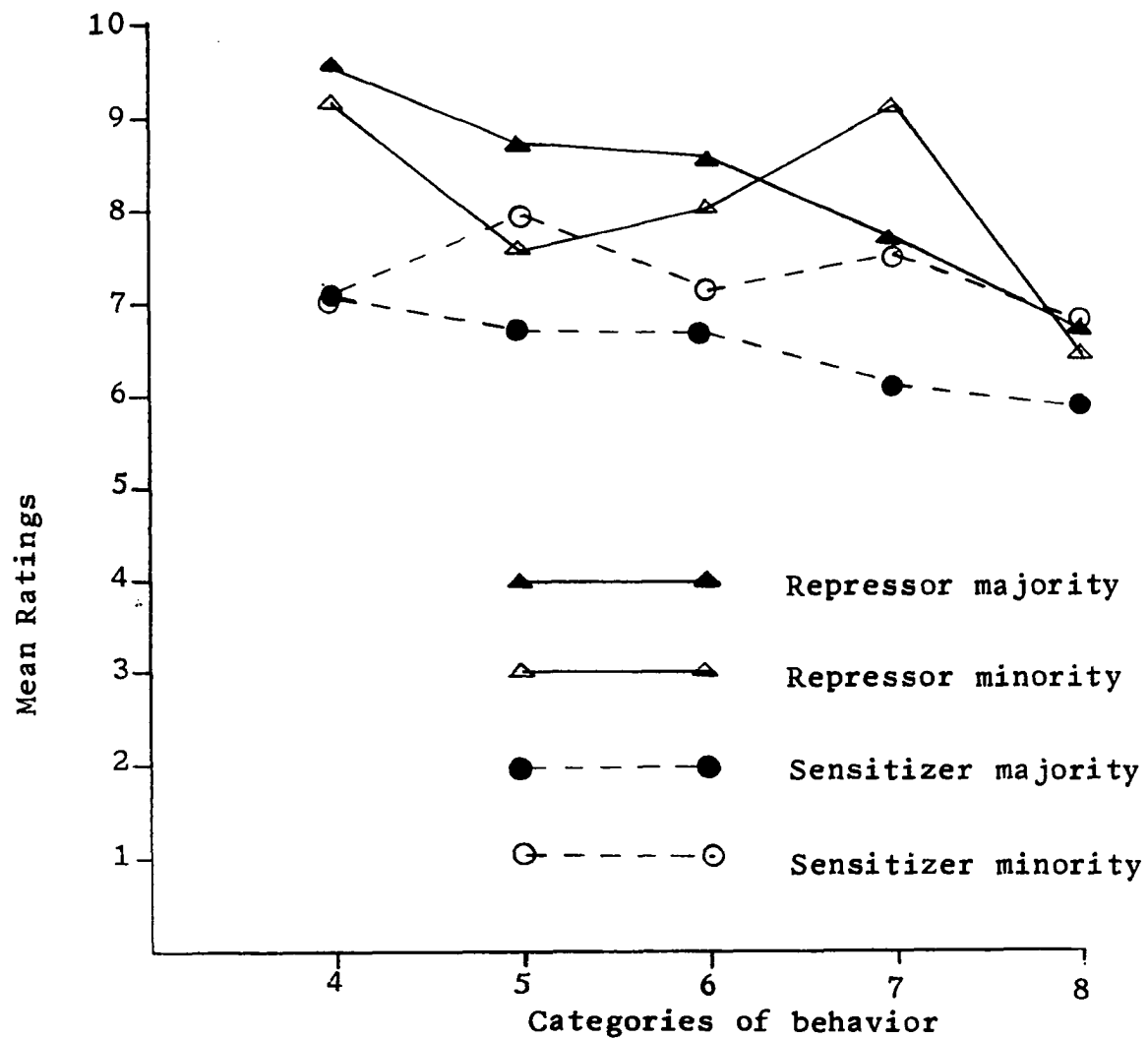


Fig. 3. Judges' ratings of repressors and sensitizers using Bales categories of aggressive behavior (majority-minority)

Hypothesis 4 requires a two factor median test to analyze the stated interaction. Any interaction between the repressor-sensitizer and the majority-minority dimensions would be reflected in such a test by a significant contingency chi-square. Table 12 shows the number of subjects above or below the median on Bales categories of aggressive behavior (sum categories 4 - 8). The chi-square test fails to support the hypothesis. Chi-square tests on each of Bales aggressive categories separately were not significant.

Table 12

Number of Subjects Above or Below the
Median on Bales Categories of
Aggressive Behavior

Sum categories 4-8 Median 48.5					
Above median			Below median		
	<u>Majority</u>	<u>Minority</u>		<u>Majority</u>	<u>Minority</u>
Repressor	<u>23</u>	<u>7</u>	Repressor	<u>13</u>	<u>5</u>
Sensitizer	<u>13</u>	<u>5</u>	Sensitizer	<u>23</u>	<u>7</u>
$\chi^2 = 6.30, 4 \text{ df}, .25 > \underline{p} > .10$					

A chi-square test of the judges' ratings, using the Minnesota-Ford traits of personality, of these subjects reveals a non-significant ratio ($\chi^2 = 6.30, 4 \text{ df}, \underline{p} < .25$).

Thus, hypothesis 4 is rejected. The judges' ratings of repressors in a minority are not significantly different from sensitizers in minority. Neither do repressors in a

minority differ significantly from repressors in a majority.

However, the proportion of repressors and sensitizers in the group had a rather interesting effect upon the expression of aggression in control subjects. A consistent trend toward a greater expression of aggression by the control subjects when interacting with sensitizers in the majority than when in the repressor majority groups is seen. The t tests between the judges' ratings of control subjects in repressor groups and sensitizer groups using Bales categories of aggression are presented in Table 13 and shown graphically in Figure 4.

Table 13

t Tests Between Judges' Ratings of Control Subjects in
Repressor Groups and Sensitizer Groups Using
Bales Categories of Aggression

Categories	Controls in repressor groups (N 12)		Controls in sensitizer groups (N 12)			
	Mean	S.D.	Mean	S.D.	<u>t</u>	<u>pa</u>
4	6.92	4.01	9.50	2.95	1.72	.10
5	6.08	3.33	8.33	2.72	1.70	.10
6	5.75	4.06	8.08	2.60	1.87	.10
7	5.83	2.74	7.00	1.73	1.20	---
8	5.17	2.31	6.83	2.00	1.73	.10
Sum 4 - 8	29.75	13.82	39.75	12.14	1.80	.10

^aTwo-tail test.

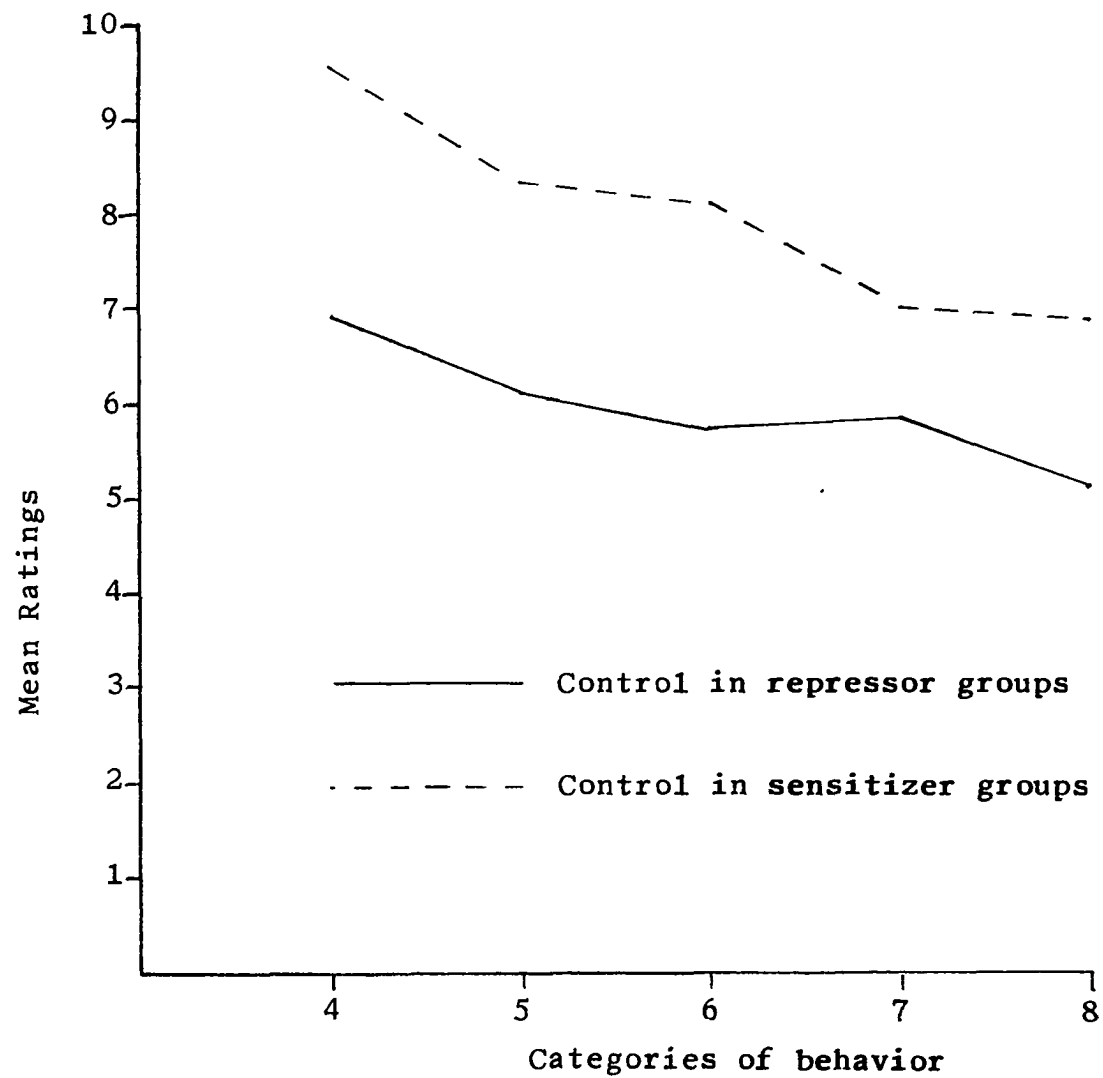


Fig. 4. Judges' ratings of control subjects in repressor groups and sensitizer groups using Bales categories of aggressive behavior

A chi-square test of the judges' ratings using above and below the median scores on the Minnesota-Ford traits of the control subjects in these groups is not significant but a trend is clearly indicated ($P < .11$, one-tail test). Table 14 shows the number of subjects above or below the median on the Minnesota-Ford traits of aggression.

Table 14

Number of Control Subjects Above or Below the
Median on the Minnesota-Ford Pool of
Personality Traits

Median 13.5		
Groups	Above	Below
Repressor	4	8
Sensitizer	7	5
$\chi^2 = 1.53, 1 \text{ df}, P < .11$		

The last two hypotheses concern the subjects descriptions of each other as follows:

5. Repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions.

6. Repressors in the minority are described by sensitizers as more aggressive than repressors in the majority; similarly, sensitizers in the minority are described by repressors as less aggressive than sensitizers in the majority.

An examination of the data dealing with the subject's

perceptions of each other reveal patterns of variability which preclude analysis with parametric statistics. The variances of the subjects' perceptions of each other using the Bales categories of behavior are listed in Appendix D.

The means of the subjects' perceptions of each other using the Bales categories of behavior are presented in Table 15, and noted graphically in Figure 5. Table 16 shows the number of subjects described by their counterparts within the groups (i.e., all repressors as described by all sensitizers and the reverse) above or below the median on Bales categories of aggressive behavior. As indicated in Table 16, repressors describe sensitizers significantly less hostile and aggressive than sensitizers describe repressors on these dimensions, confirming Hypothesis 5.

An interesting comparison of the subjects' perceptions of each other is also provided by the control subjects' perceptions of repressors and sensitizers. A chi-square analysis reveals a mean significant ratio of 2.72 ($P > .05 < .10$, $df\ 1$). Control subjects perceive repressors as more aggressive than sensitizers in their interpersonal relations.

Hypothesis 6 may be analyzed by a two-factor median test (Dahlke, 1965). Any interaction between the repressor-sensitizer and the majority-minority dimensions would be reflected in such a test by a significant contingency chi-square.

Table 15

Means of Subjects' Perceptions of Each Other
Using Bales Categories of Behavior

Subjects	Bales Categories of Behavior							
	1	2	3	4	5	6	7	8
Sensitizers in majority rated by repressors in minority	6.00	5.92	8.75	4.25	3.67	3.08	3.92	3.33
Repressors in majority rated by sensitizers in minority	8.42	7.67	9.67	6.58	5.33	5.50	6.42	4.42
Sensitizers in minority rated by repressors in majority	6.42	5.83	8.17	5.42	5.08	4.17	4.58	4.25
Repressors in minority rated by sensitizers in majority	8.00	6.42	8.58	6.42	5.75	4.58	6.08	4.08

Table 16

Number of Subjects Described by their Counter-peers Above or Below
the Median on Bales Categories of Aggressive Behavior
(Repressors and Sensitizers)

Category 4 Median 24.5			Category 5 Median 22.5			Category 6 Median 25.5		
	Above	Below		Above	Below		Above	Below
Repressor	16	8	Repressor	17	7	Repressor	14	10
Sensitizer	8	16	Sensitizer	9	15	Sensitizer	9	15
$\chi^2 = 5.44$ df1 $\underline{P} < .01^a$			$\chi^2 = 5.48$ df1 $\underline{P} < .01$			$\chi^2 = 2.10$ df1 $\underline{P} < .08$		

Category 7 Median 25.5			Category 8 Median 27.5			Sum	Categories 4-8 Median 26.5		
	Above	Below		Above	Below		Above	Below	
Repressor	18	6	Repressor	11	13	Repressor	15	9	
Sensitizer	5	19	Sensitizer	10	14	Sensitizer	7	17	
$\chi^2 = 14.90$ df1 $\underline{P} < .001$			$\chi^2 = .09$ df1 NS			$\chi^2 = 5.48$ df1 $\underline{P} < .01$			

^aOne-tail test probabilities used for all chi-square tests used
in this table.

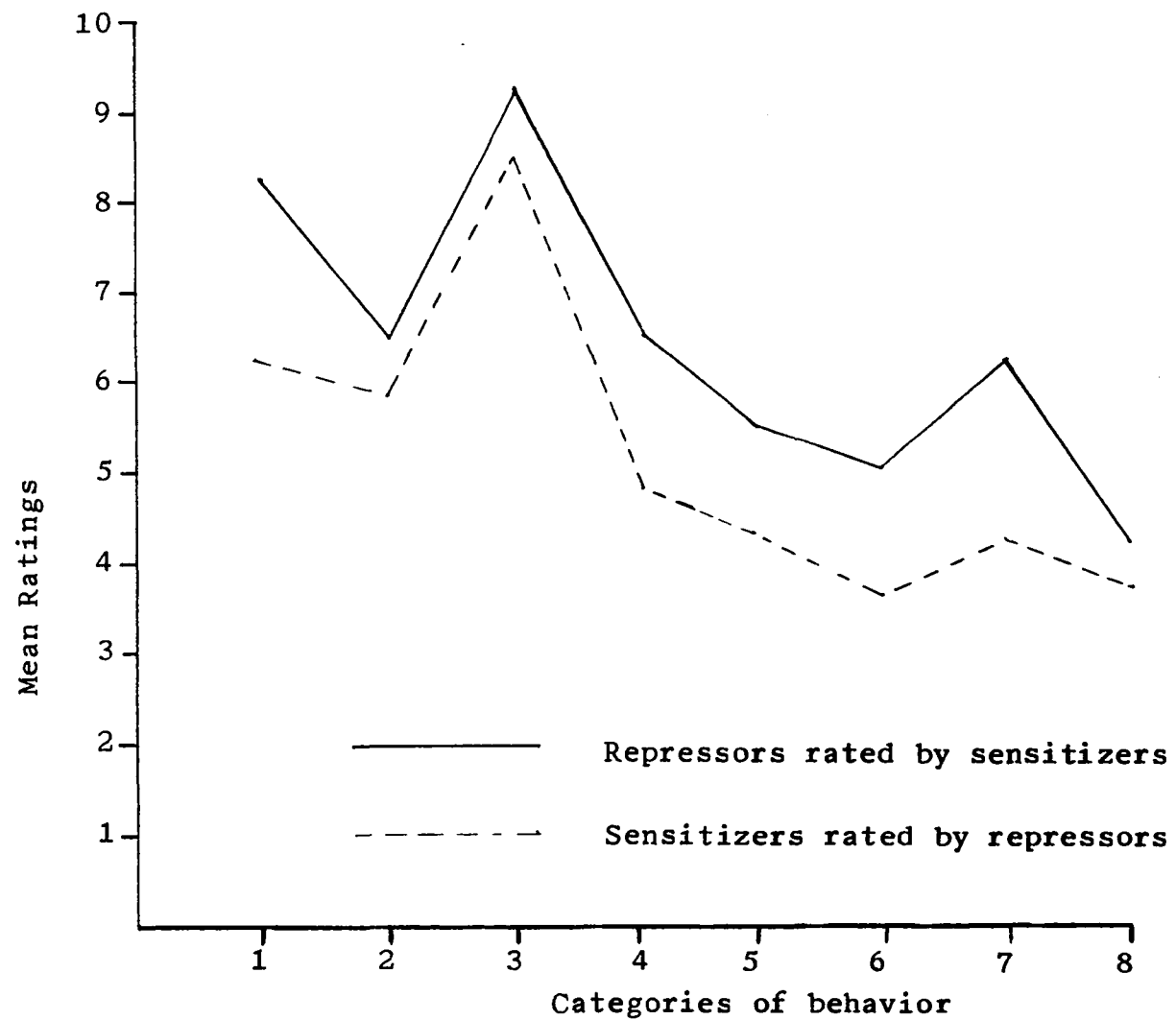


Fig. 5. Subjects' ratings of each other using Bales categories of behavior

Table 17 shows the number of subjects described by their counter-peers (i.e., repressors in the minority described by sensitizers in the majority as more aggressive than sensitizers are described by repressors in similar circumstances) above or below the median on Bales categories of aggressive behavior. Significant chi-squares are indicated on categories 6 and 7. These data are presented graphically in Figure 6. However, the direction of differences are opposite to those predicted, i.e., the largest differences occur in repressors and sensitizers in the majority.

The same results are obtained on the Minnesota-Ford pool of aggressive personality traits. Table 18 shows the number of subjects described by their counter-peers above and below the median on the Minnesota-Ford traits. These results reveal sensitizers in the majority are described as less aggressive than sensitizers in the minority by repressors. No significant differences occur in the sensitizers' descriptions of repressors in the majority versus repressors in the minority.

An interesting comparison between the subjects ratings of themselves and the judges' ratings on the Bales categories of behavior is presented in Table 19 and shown graphically in Figure 7. Differences between the subjects' self-ratings and the judges' ratings of their behavior were used to test for significance. The mean difference score for repressors versus judges' ratings on the categories of aggression (4-8) was 4.96; for sensitizers 1.12.

Table 17

Number of Subjects Described Above or Below the Median
on Bales Categories of Aggressive Behavior
(Minorities and Majorities)

		Category 4 Median 24.5				Category 5 Median 22.5				Category 6 Median 25.5					
		Above		Below		Above		Below		Above		Below			
		Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.		
R ^a		8	8	R	4	4	R	8	9	R	8	6	R	4	6
S ^b		3	5	S	9	7	S	3	6	S	1	8	S	11	4
		$\chi^2 = 6.19$ NS				$\chi^2 = 7.30$ NS				$\chi^2 = 12.38$, <u>P</u> < .05					
		Category 7 Median 25.5				Category 8 Median 27.5				Sum Categories 4-8 Median 26.5					
		Above		Below		Above		Below		Above		Below			
		Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.	Maj.	Min.		
R		9	9	R	3	3	R	5	6	R	7	8	R	5	4
S		2	3	S	10	9	S	3	7	S	2	5	S	10	7
		$\chi^2 = 15.16$ <u>P</u> < .01				$\chi^2 = 3.06$ NS				$\chi^2 = 7.52$ NS					

^aR - Repressor

^bS - Sensitizer

4 degrees of freedom used for all chi-square tests used
in this table.

Table 18

Number of Subjects Described Above or Below the
Median by their Counter-peers on the
Minnesota-Ford Pool of Aggressive
Personality Traits

Median 25.5					
	Above			Below	
	<u>Majority</u>	<u>Minority</u>		<u>Majority</u>	<u>Minority</u>
Repressor	9	8	Repressor	3	4
Sensitizer	0	6	Sensitizer	12	6
$\chi^2 = 21.05 \quad df \ 4 \quad \underline{P} < .001$					

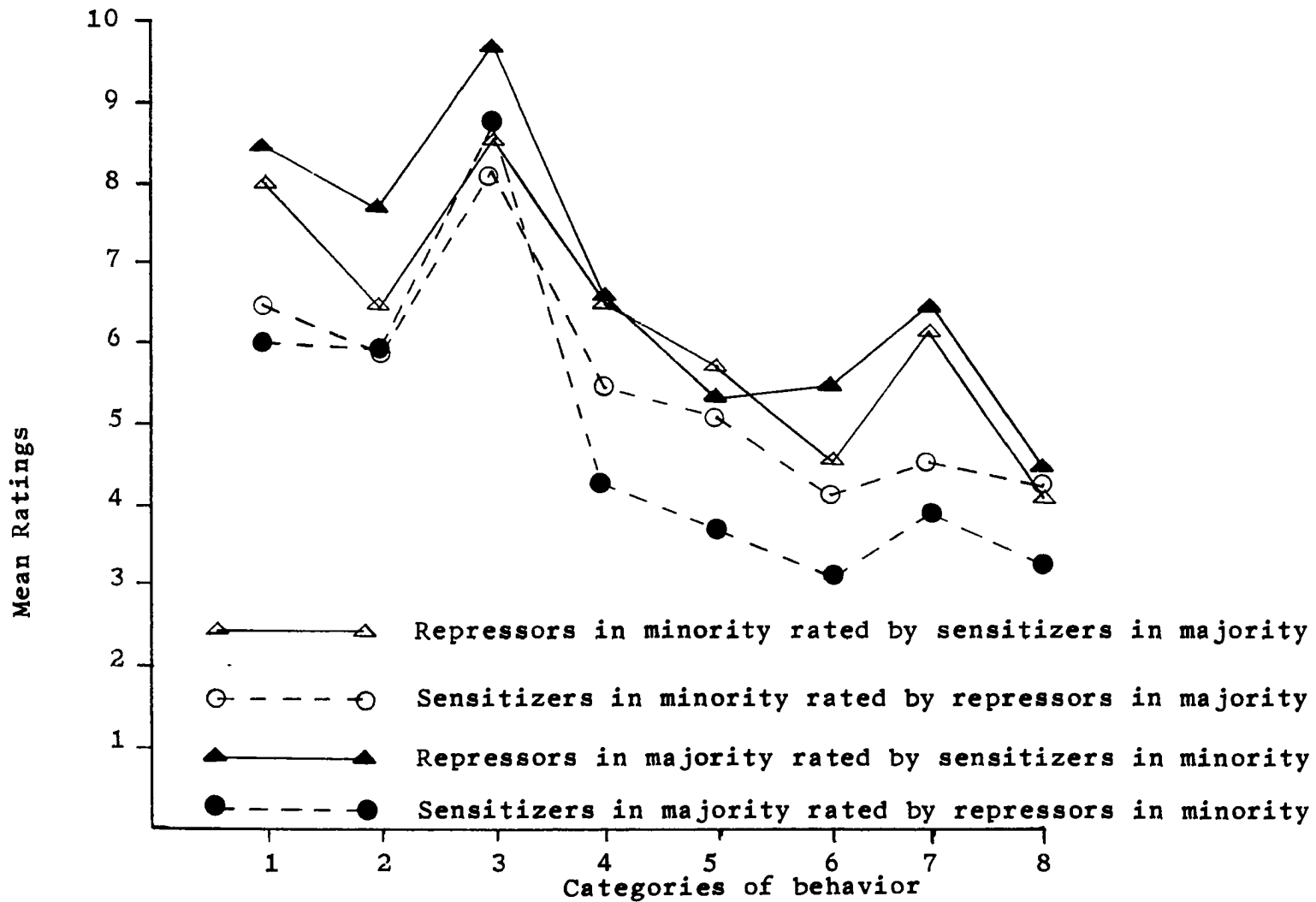


Fig. 6. Repressors and sensitizers rated by their counter-peers using Bales categories of behavior

Table 19

Means and Standard Deviations of Subjects' Self Ratings
and Judges' Ratings on Bales Categories

Categories	Subjects' self-ratings				Judges' ratings			
	Repressors		Sensitizers		Repressors		Sensitizers	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	11.42	9.98	11.33	3.05	10.13	3.69	8.25	3.02
2	7.73	2.24	7.58	2.06	8.06	3.59	10.68	3.78
3	14.50	3.78	14.83	4.24	12.97	3.64	8.88	3.38
4	7.00	2.63	8.17	2.33	12.59	4.16	9.36	3.49
5	5.58	1.96	8.50	2.36	11.28	3.86	9.33	3.28
6	5.09	1.58	6.25	1.97	11.58	3.93	9.11	3.28
7	6.91	2.27	8.34	2.06	10.70	4.08	8.46	3.36
8	5.59	1.93	6.00	1.89	8.83	3.10	8.11	3.07

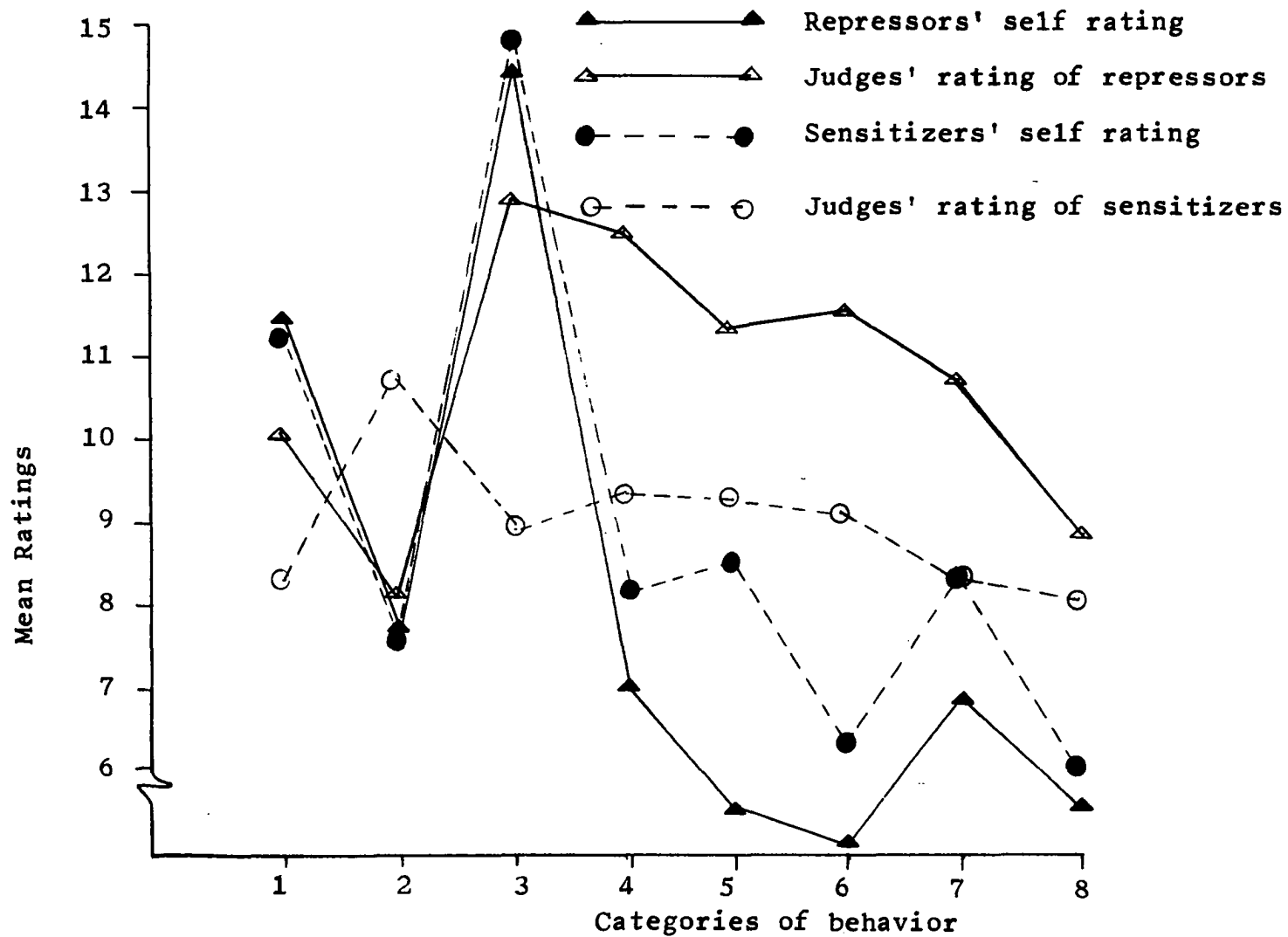


Fig. 7. Subjects' self ratings and judges' ratings on Bales categories of behavior

Again, because of unusual variability in the subjects' self-rating scores, a chi-square analysis of the difference between self-ratings and judges' ratings on Bales categories of aggression was used. A significant ratio of 8.35 ($P < .01$, $df = 1$) was obtained (Table 20). Repressors rated themselves significantly less aggressive than did the sensitizers when compared to the judges' ratings.

Table 20

Number of Subjects with Difference Scores Above
or Below the Median on Bales Categories
of Aggression

	Median 44.5	
	Above	Below
Repressors	33	15
Sensitizers	19	29
$\chi^2 = 8.35 \quad df = 1 \quad P < .01$		

Summary

All hypotheses were tested by appropriate statistical techniques. The hypotheses and results are:

1. Repressors respond to unstructured stimuli (the Rorschach test) with less hostile content than sensitizers.

This hypothesis is not confirmed. A trend was found for control subjects to respond with less hostile content than sensitizers.

2. Repressors manifest more overt aggression than sensitizers in their interaction in task oriented groups.

This hypothesis is confirmed by both the Bales categories of aggressive behavior and the Minnesota-Ford Pool of aggressive personality traits.

3. Groups with a high proportion of repressors manifest more aggression than comparable groups of subjects with a high proportion of sensitizers.

This hypothesis is not confirmed when summing individual scores. However, analyses of the groups' interaction using the group as the unit yielded significant differences.

4. Repressors in a minority are more aggressive, and sensitizers in a minority are less aggressive, than when each are in the majority.

The hypothesis is not confirmed. However, a trend for control subjects to display more aggression when interacting with sensitizers as opposed to interacting with repressors in the majority was found. This trend was clearly evident on both the Bales categories of aggressive behavior and the Minnesota-Ford Pool of aggressive personality traits.

5. Repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions.

This hypothesis is confirmed by both the Bales categories of aggressive behavior and the Minnesota-Ford Pool of aggressive personality traits.

6. Repressors in the minority are described by sensitizers in the majority as more aggressive than repressors in the majority; similarly, sensitizers in the minority are described by repressors as less aggressive than sensitizers in the majority.

This hypothesis is not confirmed. Repressors, regardless of the majority-minority dimension are described as more aggressive by others than are sensitizers. Sensitizers in a minority tend to be described by others as more aggressive than sensitizers in a majority.

CHAPTER V

DISCUSSION

At the most general level the results of this experiment have shown that the expression of aggression is, to a significant extent, a function of personality, nature of the situation, and composition of groups in a given situation. Discussion of the specific results will follow the same sequence of the major aims of the investigation as presented in Chapter II.

Expression of Hostility and Aggression as a Function of Personality Type and Nature of Situation Hypotheses 1 and 2

The paradoxical findings reported in the literature that repressors when compared to sensitizers project less hostility on projective tests but express more aggression in interpersonal relations was only partially demonstrated within the same group of subjects in the present study. That is, repressors did not differ significantly from sensitizers in the amount of hostile content projected on the Rorschach. Repressors, however, were rated as significantly more aggressive than sensitizers in group interaction. A

trend for sensitizers to respond with more hostile content to the Rorschach than control subjects was evident.

While these results are in part similar to Abrams (1962) who found that repressors and sensitizers did not show constancy of response in different stimulus situations, the findings were puzzling in that pilot experimentation had shown statistically significant differences between the RCTh scores of repressors and sensitizers. Byrne, however, observes that "response to projective material with emotionally disturbing content is not consistently related to repression-sensitization" (1964, p. 186). He suggests that the inconsistent results may be a function of the degree of threat provided by the stimuli. Byrne hypothesizes that if either or both the content of the stimulus material and accompanying instructions and experimental setting were sufficiently threatening, differences in repression-sensitization would lead to differences in response. It is possible that in the pilot experimentation the experimenter, who had introduced himself as associated with the University of Oklahoma Medical School, was perceived by the subjects as a "threatening" authority figure. In the present study, the experimenter introduced himself as a "graduate student working on a dissertation," a seemingly lower status than a faculty person associated with a Medical School. It should also be noted that because of the greater number of subjects utilized in the present study, as compared to the pilot study, Rorschach's were administered in

larger groups and thus further obscuring the student-authority figure relationship previously had.

The literature is abundant with findings that Rorschach responses vary with situational factors (Calden & Cohen, 1953; Gibby, 1951; Kimble, 1945; Lord, 1950). Some writers have found the personality of the examiner significantly related to the type of Rorschach protocols which he obtains (Sanders & Cleveland, 1953). Towbin (1959) found that hostility in Rorschach content (using a scoring system derived from Elizur) was significantly related to how the testee perceived the power and status of the examiner.

It may be that the comparison of interpersonal interaction with results of group administration of the Rorschach test is inappropriate. The predicted results might have been found if the method of individually administered Rorschachs, i.e., when interpersonal interaction is maximized, had been employed.

The results obtained in the group interpersonal interactions seem readily explicable in terms of self-concept theory. Sensitizers have been described, as noted previously, as anxious individuals who tend to see themselves negatively, especially as more hostile and distrustful than their peers. They are alerted to potential threat and conflict and under such conditions, they attempt to withdraw from group interaction and present passive acceptance and modesty, and unassertive agreement. Sensitizers apparently do not feel

secure enough to overtly express feelings of aggression and hostility. Conversely, the trend is for the sensitizer to project more hostile attitudes than control subjects in the group projective test situations where interpersonal relations are limited and potential danger from interaction is minimal. By contrast, the repressor, who has an accepting self-picture, can and does express himself more freely and openly. His behavior is at times social and congenial and at other times aggressive. Several studies have shown that individuals with smaller self-ideal discrepancies are more aggressive in their interpersonal relations (Veldman & Worche1, 1961; Worche1, 1958).

Expression of Aggression as a Function of the
Proportion of Personalities within the Groups
Hypothesis 3

In the previous section, differences between repressors and sensitizers regardless of group were discussed. In this section, the behavior of groups is discussed.

Repressor groups (repressors in the majority) when rated as a unit were judged to be significantly more aggressive than sensitizer groups (sensitizers in the majority). Comparison of the groups rated as a unit, as opposed to the combined individual ratings of each member in the group, seems to have captured more of the group interaction. Analyses of the summed scores across individuals within the group did not reveal significant differences for these reasons: 1) sensitizers in the minority tended

to be more aggressive than sensitizers in the majority, 2) repressors in the minority were as aggressive as repressors in the majority and, 3) the judges' ratings revealed a consistent trend for control subjects to be more aggressive when interacting with sensitizers than when interacting with repressors. Summing the judges' ratings of these individuals with the others in the group cancelled out differences otherwise observed.

Expression of Aggression by Repressors and
Sensitizers in the Minority
Hypothesis 4

The hypothesis that repressors in a minority are more aggressive, and sensitizers in a minority are less aggressive, than when each is in the majority was not substantiated by the results. Pilot experimentation had suggested this relationship. The fact that it was not borne out in the present study is thought to be due to the absence of the "expressor-sensitizer" subjects used in the pilot study. Those individuals have been said to have impulsive tendencies held in check by compulsive defenses. Altrocchi and Perlitsh (1963) describe them as having impulsive expressive tendencies and experiencing anxiety, obsessive concerns, and guilt. They tend to express hostility indirectly and "it is likely that they see hostile impulses as ego-alien and unjustified" (Altrocchi & Perlitsh, 1963, p. 813). In pilot experimentation, expressor-sensitizer subjects displayed a significantly

greater number of interruptions and disagreements than repressors or sensitizers. This may have had the effect of eliciting greater aggression from repressors in the minority while causing more withdrawal among sensitizers in the minority. Expressor-sensitizer subjects were not included in the present study because they were not found to differ significantly on the Bales categories from repressors or sensitizers in the pilot study.

While differential behavior of repressors and sensitizers did not vary as a function of the majority-minority dimension, the latter did have an effect upon the behavior of the control subjects. As noted earlier, control subjects with repressors in the majority were consistently less aggressive than when with sensitizers in the majority. A possible explanation for these findings is based on observations of the total behavior of the groups and Worchel's (1957) formulation concerning the genesis of hostility. Sensitizers interacting with other individuals who employ the same kinds of defenses, namely obsessive and intellectual, seemingly kept interpersonal relations at a minimum. Passive acceptance of each other with little or no disagreement in their discussion characterized the group's activities. The kinds of disagreements observed among the sensitizer groups were concerned with whether the individuals pictured in the stimulus card were mother and daughter, the ages of the two characters, or undue concern with other details. Seldom did

the disagreements in these groups serve to advance toward completion of the assigned task. Repressors interacting with other repressors were more direct in developing a theme for the stimulus card, usually completed the story in the allotted time, and revealed more hostile attitudes in the content of the story constructed.

Worchel (1957) presents the view that hostility is a drive arising as a consequence of the inhibition of aggression or the inability of an aggressive response to remove the frustrating or threatening barrier. Worchel conceives of hostility as "instrumental in reducing the threshold of frustration—tolerance so that attack may be directed at other instigating agents which, ordinarily, without prior arousal of hostility, would not produce the aggressive response (displacement" (Worchel, 1957, p. 323). Views similar to Worchel's are presented by Stagner (1956), who proposes that a hostile reaction is aroused by deprivation in the immediate group situation, and by Horwitz (1956), who views hostility as a "meta-need" produced by specifiable deficiencies in the behavioral environment.

In Worchel's terms, the sensitizer's group standards impeded attempts on the part of the control subjects to progress on the assigned task and thus created a frustrating situation for the latter subjects assuming, of course, the controls were task oriented. All indications were that control subjects were more inclined to avoid the details that

preoccupied the sensitizers and to select and to develop a theme for the stimulus card. Control subjects in sensitizer groups were apparently reacting with aggression to the latter's obsessive and intellectual defenses which hindered the group's accomplishment of the assigned task.

If the above explanations and Worchel's concept of the genesis of hostility are valid, research with peer-pairings and cross-pairings with repressors, sensitizers, controls, and expressor-sensitizers in task-oriented dyadic situations would seem to resolve the issues raised in the present study.

The results are also interpretative from a more social-psychological point of view. Cartwright writes of the affective state of group members which is associated with the way in which he perceives certain properties of the group such as style of leadership, ease of communication among members, stratification of status, and clarity of distributions of functions (1950). Control subjects in the present study perceived sensitizers as being more passive, modest, and unassertive than repressors. Sensitizers were also perceived by control subjects as less direct than repressors in their attempts to control, regulate, govern, direct, or supervise (Bales categories 4-8). The affective state of control subjects interacting with sensitizers was such then, that they tended to be more aggressive and to exert more effort to arrive at solutions or decisions in the group (Bales category 3).

Subjects Perceptions of Each Other
Hypotheses 5 and 6

The hypothesis that repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions was confirmed. Further, repressors described themselves as much less aggressive than they were described by the judges. These results are similar to McDonald's (1963) findings with a group of women. Repressors, according to McDonald, attributed less hostility to themselves and others and also endorsed fewer adjectives than did sensitizers on Leary's (1957) Interpersonal Check List. The findings in the present study are also, in part, consistent with Altrocchi and Perlitsh's (1963) report that repressors attributed little hostility to themselves and others. Joy (1963) found that repressors rated themselves as showing more concern for maintaining friendly relations than did sensitizers.

The results in this study did not support the hypothesis that repressors in the minority are described by sensitizers as more aggressive than repressors in the majority, nor that sensitizers in the minority are described by repressors as less aggressive than sensitizers in the majority. The predicted interaction did not occur. It appears to make little difference whether the repressor or sensitizer is interacting in a majority or minority capacity as far as the aggression he attributes to others or is attributed to him. More aggression is attributed to repressors by peers and judges than is attri-

buted to sensitizers.

The research findings, then, in the present study and other experiments, seem to indicate certain consistent trends. Foremost is the frequent finding that repressors attribute little hostility to self and others. The present study also demonstrated that repressors attribute significantly less aggression to themselves than is attributed to them by experienced clinical psychologists. Another consistent finding is, of course, the trend for sensitizers to attribute more aggression to others than they attribute to themselves or is attributed to them. They are described by others as more passive and showing less leadership ability than they attribute to themselves.

It is becoming increasingly clear that the attribution of aggression to self and others is closely related to how one perceives oneself to be and how he would like to be. The repressor by denying hostile and aggressive experiences is able to maintain an accepting self-picture. The sensitizer, by contrast, experiences a greater discrepancy between how he perceives himself and how he would like to be. The resultant behaviors of these individuals, as has been demonstrated in the present study, is quite diverse. This may well reflect certain response sets as suggested by McDonald (1963) but a more encompassing and unifying explanation seems offered by Roger's (1951) self-concept theory.

Self-concept theory and the repression-sensitization dimension. The defensive structures of repressors and sensitizers, as is true of other individuals, are the consequence of certain interpersonal and environmental relations throughout life. Some studies, for example Byrne (1964), have attempted to relate the development of repressive and sensitizing defenses to child-rearing attitudes. Distinct differences in the home atmosphere, permissiveness, and acceptance are reported. As a result of the differences that characterize these early formative years, the repressor, more so than the sensitizer, seems to have more nearly accomplished Rogers' description of adjustment: "The healthy or adjusted personality exists when the concept of the self is such that all the sensory and visceral experiences of the organism are, or may be, assimilated on a symbolic level into a consistent relationship with the concept of self" (Rogers, 1951, p. 513). Studies on self-ideal discrepancy among repressors and sensitizers lend strong support to the thought that the repressor more nearly fits Rogers' description of adjustment. However, to maintain an accepting self-picture, the repressor is compelled to deny hostile experiences and thus attain a self concept more nearly approximating the ideal concept likely to be accepted by others. He may, as Rogers suggests, be social at times and aggressive at others. The present study has attempted to demonstrate that what his behavior will be is dependent on the nature of the situation. His behavior in

task-oriented situations is viewed as aggressive by others but is not so reported by himself. The sensitizer seems to become more anxious and he continues to employ intellectual and obsessive defenses. He is alerted to potential threat and conflict and perhaps perceives the repressor as the source of this threat. He, at any rate, attributes more aggression to the repressor than is attributed to him.

Summary and Future Research Directions

The results of this study have shown that the expression of aggression is, to a significant extent, a function of personality, nature of the situation, and composition of groups in a given situation. The study has demonstrated the usefulness of the repression-sensitization dimension in identifying some of the personality characteristics which seem especially related to the expression of aggression. The adjustive mechanisms employed by repressors and sensitizers seemingly facilitate or restrain the expression of aggression by these individuals. Although differences in covert and overt expression of aggression were not demonstrated, ways of further pursuing this matter were presented. The extent to which the nature of the situation is a contributing factor has been shown to be strongly related to the proportionality of repressors and sensitizers interacting in task-oriented situations.

The results of this study strongly support the potential usefulness of the repression-sensitization dimension in inter-

personal relations. Repressors are indeed rated as more hostile and aggressive than sensitizers in their interpersonal relations. Repressors are consistently and significantly rated higher than sensitizers in their attempts to control, regulate, govern; in displaying stubborn and resistive behavior and resisting efforts of someone to take satisfaction from him; and in attempting to excite, amaze, etc., as a means of raising his own status. The repressor is not, however, rated as significantly higher than the sensitizer on the behavioral category of being cranky, uncongenial, touchy, irritable, and ill-tempered. His aggressive behavior appears more directly related to accomplishing the given task although additional exploration in this area is needed. The results of this study support Byrne's (1964) proposition that the two extremes of the repression-sensitization dimension do not represent simply different but equally-maladjusted ways of responding to conflict and anxiety. The repressor appears more comfortable and effective in his interpersonal relations while the sensitizer attempts, seemingly, to cope with the situation and his anxieties at the same time. A linear relationship, as postulated by Byrne, apparently exists between repression-sensitization defenses and maladjustment. Further research with the same individuals participating in both majority and minority capacities in different groups would shed light on the constancy of their behavior.

The consistency in the trend of the expression of aggression in the "control" subjects as a function of the proportion of repressors and sensitizers calls for further validation. Theoretically, a larger number of control subjects would help to clarify this question. Also, it would appear that the sensitizer's passive acceptance, modesty, unassertiveness, and retiring tendencies elicited a more aggressive attitude on the part of the control subjects. At present, this is a speculation in need of further confirmation. A study designed to explore the expression of aggression in dyads of repressors, sensitizers, controls, and expressor sensitizers was suggested as a means of studying the elicitations of various behaviors.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The literature regarding aggression and hostility indicates early experiences, defense mechanisms, and adjustment habits are important variables in determining the expression of these traits. Some researchers also stress the present situation as perceived and defined by the individual as vital in determining the form and content of resulting aggressive behavior. It has been pointed out that theories of aggression and hostility deal with global variables and that differences in the theories seem to be, largely, differences of focus on specific variables. There is general agreement in these theories that (1) some of the antecedents of aggression are deprivation, frustration, attack, situations, and (2) that repression or continued inhibition of aggressive responses constitute a threat to personal integration and may lead to inappropriate behavior.

Review of the literature also suggests that individuals whose adjustment habits or defense mechanisms compel them to use repressive defenses as opposed to those who are alerted to potential threat and conflict and employ intellectual and

obsessive mechanisms would behave and interact differently in various situations. It has been reported that "repressors" tend to display agreeable and affiliative behaviors and focus on positive qualities in themselves and others, "Sensitizers" respond more readily with manifest anxiety and avoid close interpersonal relations. Repressors and sensitizers seemingly perceive and define interpersonal situations differently and behave accordingly.

The present study was designed to investigate the expression of aggression as a function of: (1) personality, (2) nature of the situation, and (3) composition of groups in a given situation. It was expected that, since repressors and sensitizers have reportedly had different past experiences and seemingly favor distinctly different adjustive mechanisms, they would differ also in their expression of aggression in different situations. Repressors would be expected to project less hostility than sensitizers in covert situations (on the Rorschach test) but to display more aggression in overt situations (in interpersonal relationships). This hypothesis evolved from a conceptualization that hostility tends toward overt aggression but is directed and limited by the individual's past history and present perceptions of the situation.

Another hypothesis suggested from pilot experimentation was that groups with a high proportion of repressors manifest more aggression than comparable groups of subjects with a high proportion of sensitizers. Another hypothesis

suggested was that repressors in a minority are more aggressive and sensitizers in a minority are less aggressive than when each is in the majority. Hypotheses relating to attribution of hostility to others were that repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions.

The subjects were college students selected on the basis of Byrne's repression-sensitization scale. The subjects were assigned to groups of five in such a way as to insure that none of the members had any close acquaintance with each other. Assignment of subjects to groups resulted in twelve groups in which repressors were in the majority and twelve groups in which sensitizers were in the majority. Each group contained one "control" subject who was neither a repressor or a sensitizer.

The experimental procedure began with the measurement of covert hostility via group Rorschach tests. Three experienced clinical psychologists rated the expression of aggression using Bales categories of behavior and the Minnesota-Ford Pool of aggressive personality traits. The subjects interacted in a structured interpersonal situation for a half hour period in groups of five, jointly constructing a story from a stimulus card. After the group interaction, the subjects described each other on the same personality traits and categories of behavior as used by the three clinical psychologists.

The findings were:

1. Repressors and sensitizers did not differ significantly from each other on the amount of projected hostility to the Rorschach test.

2. Sensitizers tended to project more hostility on the Rorschach than did control subjects.

3. Repressors were rated as significantly more aggressive than sensitizers in their interpersonal relations.

4. Repressors were rated as displaying significantly more tension release by joking, laughing, clowning, or kidding than were sensitizers.

5. Repressors displayed more active concern to arrive at solutions or decisions and to adopt a plan of action or resolution than did sensitizers.

6. Sensitizers displayed more passive acceptance, modesty, and unassertive and retiring actions than did repressors.

7. Repressor groups were rated as significantly more aggressive as a unit than were sensitizer groups as a unit.

8. Control subjects interacting with sensitizers in the majority tended to be rated as more aggressive than control subjects interacting with repressors in the majority.

9. Repressors in a minority were not found to be more aggressive, and sensitizers in a minority less aggressive, than when each were in the majority.

10. Repressors described sensitizers as significantly less hostile and aggressive than sensitizers described repressors on these dimensions.

11. Repressors in the minority were described by sensitizers to be as aggressive as repressors in the majority.

12. Control subjects described sensitizers in the majority as significantly less aggressive than they described repressors in the majority.

13. Repressors rated themselves as significantly less aggressive than sensitizers rated themselves when compared to ratings by experienced clinical psychologists.

These findings confirm the hypothesis that repressors manifest more overt aggression than sensitizers in their interaction in task-oriented groups. It is postulated that repressors can be more open and direct in their interpersonal relations than sensitizers because their self-concept is closer to the cultural ideal. The more effective behavior of the repressor lends support to the proposal that the two extremes of the repression-sensitization dimension do not represent simply different but equally maladjusted ways of responding to anxiety and conflict.

These findings also confirm the hypothesis that expression of aggression is highest in groups with a high proportion of repressors than comparable groups of subjects with a high proportion of sensitizers. Comparison of the control subjects' behavior in repressor and sensitizer groups shows

that he becomes more aggressive in his interpersonal relations in the latter groups. These findings are congruent with group dynamics postulation that the affective state of the group member is associated with the way in which he perceives certain properties of the group.

The results of this study confirm the hypothesis that repressors describe sensitizers as less hostile and aggressive than sensitizers describe repressors on these dimensions. Repressors attribute significantly less aggression to themselves than is attributed to them by experienced clinical psychologists. Sensitizers are described by others as more passive and showing less leadership ability than they attribute to themselves.

Finally, the general aims of this experiment have been fulfilled in that it has been shown that the expression of aggression is a function of personality, nature of the situation, and composition of groups in a given situation.

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APPENDIX A. ELIZUR RORSCHACH SCORING SYSTEM

Instructions for Scoring Rorschach
Content Hostility (RCTh)

The attached records consist of sets of responses given by individuals to ten ink blots. You are to read carefully the responses of each record and to score only those which contain elements of hostility. Any scorable response might be assigned one of the following scores: "H" to responses containing clear cut evidences of hostility; "h" to responses with a lesser degree of hostility. All other responses are considered "neutral" and are left blank.

The scores of each record are to be summed by assigning a score of 2 for each "H" and a score of 1 for each "h." The following will illustrate the various ways in which hostility may be expressed in the responses, and will serve as a guide for scoring.

General rules.

1. Emotions expressed explicitly or implicitly are scored "H," for example, reproach, hatred, etc.
2. Derogatory expressions like "ugly," "stupid," etc., are scored "H"; slightly derogatory indications such as "over polite men," "gossiping women," are scored "h."
3. Responses like "headless people," "cut off fingers," etc., which could be interpreted as denoting hostility (sadistic tendencies) are scored "h."

Hostility expressed in responses.

1. Emotions and attitudes expressed or implied.

Examples:

H: A type of man I hate; an ugly figure; a stupid animal; an angry face; a quarrelsome person.

h: Gossiping women; two butlers making each other compliments.

2. Expressive behavior.

Examples:

H: Two animals fighting with each other; they squashed the butterfly; a wolf devouring its prey; a killed animal.

3. Symbolic responses. No far fetched symbolic interpretations are asked for but whenever a response reveals a clear symbolic meaning it is scored "h."

Examples:

h: The red represents a struggle; a primitive war-mask.

4. Objects of aggression. Responses containing objects which are usually used for aggressive purposes are to be scored "H" or "h."

Examples:

H: Arrow; gun; pistol.

h: Pliers; knife; teeth.

5. Double connotation, anxiety and hostility.

Responses that contain clear evidence of both, anxiety and hostility, or which leave you in doubt as to whether they contain the one or the other factor, are to be scored "h."

Examples:

h: Headless person; an injured bear; a child with cut-off arms; a torn butterfly; a policeman; an animal going to attack you.

APPENDIX B. BALES CATEGORIES OF BEHAVIOR

Definition of Categories of Behavior

1. Shows tension release by joking, laughing, clowning, or "kidding." Includes remarks made to smooth over some tension.

- a. Spontaneous indications of relief: Includes expressions of feeling better after a period of tension, any manifestation of cheerfulness, buoyance, satisfaction, gratification, delight, joy, happiness. Any psychological state which the observer interprets as diffuse expression of positive affect, e.g., any indication that the subject is thrilled, elated, ecstatic, euphoric.
- b. Joking: Includes the making of friendly jokes, trying to amuse or entertain; any jovial, jocular, humorous, funny, "silly" remark, whether spontaneous or in attempt to smooth over some tension situation. Clowning, bantering, "kidding" the other in a friendly fashion are included. If the element of aggression is stronger than the element of friendliness, the act should be scored in category 6.

2. Shows passive acceptance, is modest, humble, unassertive, retiring, and contributes little. Includes any indication to the observer that the subject is modest, humble, respectful, unassertive, retiring.

3. Shows active concern to arrive at solutions or decisions and to adopt a plan of action or resolution.

- a. Gives direction, proposes a solution, indicates where to start, what to do, how to cope with a problem. He may give orientation, information, repeat what others have said by way of summarizing, clarifies, and confirms. Includes all acts which are intended to secure or focus the attention of others onto the problem at hand.
- b. Includes the kind of final confirmation by repetition or affirmation which one sometimes notices at

the end of a difficult process of thinking or discussion, when the subject appears to come to a decision, to make up his mind, to crystallize his intentions, to adopt a plan of action or resolution, and accepts a responsibility to carry it on into overt action. Examples: "Yes, that's it." "That's what we should do." "Then I guess we're all agreed on that."

4. Attempts to control, regulate, govern, direct, or supervise in a manner in which freedom of choice or consent for the other person is greatly limited or non-existent.

Includes attempts to control, regulate, govern, direct, or supervise in a manner which the observer interprets as arbitrary or autocratic, in which freedom of choice or consent for the other person is either greatly limited or non-existent, with the implication that the other has no right to protest or modify the demand but is expected to follow the directive immediately without argument. Includes any act in which the observer interprets the attitude of the subject to be overbearing, dogmatic, assertive, imperious, inconsiderate, or severe. Includes arbitrary attempts to judge or settle an argument, to give a decision, to force, compel, coerce, subdue, subject, tame, master, dominate.

5. Shows stubborn and resistive behavior. Is non-compliant, unwilling, or disobliging and resists efforts or imagined efforts of some one to take some satisfaction from him.

Includes any response to an attempt at control in which the subject shows active autonomy, is non-compliant,

unwilling, or disobliging, where he resists some effort or imagined effort of someone to take some satisfaction from him. Includes any behavior in which the subject defies authority, i.e., negativistic, stubborn, resistant, obstinant, refractory, contrary, sulky, or sullen.

6. Attempts to deflate others' status by over-riding their conversation, interrupting, belittling, ridiculing, and making fun of them.

Includes conspicuous attempts to override the other in conversation, interrupting the other, interfering with his speaking, gratuitously finishing his sentence for him when the other does not want help, insisting or finishing, warding off interruption. Appraising others contemptuously, belittling, depreciating, disparaging, ridiculing, minimizing the other, reducing his remarks to absurdity, making fun of him.

7. Attempts to excite, amaze, fascinate, entertain, shock, intrigue, or amuse others as a means of raising his own status.

Includes any behavior which the observer regards as exhibitionistic, spectacular, or conspicuous. Includes attempts to excite, amaze, fascinate, entertain, shock, intrigue, or amuse others as a means of raising one's own status.

8. Shows emotional reactions such as being cranky, uncongenial, touchy, irritable, and ill tempered. Is

aggressive, combative, belligerent, quarrelsome, or argumentative.

Includes any emotional reaction which the observer would interpret as cranky, uncongenial, touchy, irritable, ill tempered. Manifestations of aggressiveness, combativeness, belligerency, quarrelsome, or argumentative. Includes any behavior in which the subject appears to be provoked, in which he shows annoyance, irritation, heat, anger, rage, or a temper tantrum.

APPENDIX C. MINNESOTA-FORD POOL OF AGGRESSIVE
PERSONALITY TRAITS

Minnesota-Ford Pool of Aggressive Personality Traits

1. Argumentative; tends to take issue for the sake of developing a verbal battle.
2. Shows ambivalence; unmixed positive feelings toward a person are rare.
3. Is witty in a cleverly cruel way; his wit has an aggressive edge to it.
4. Shows oppositional behavior (e.g., obstructs others' plans, disrupts routines, disagrees with proposals, complies superficially while subtly sabotaging, engages in delaying maneuvers).
5. Cruel: disposed to inflict suffering; indifferent to, or taking pleasure in, the pain or distress of others; hard-hearted, unkind, lacking in pity.
6. Admires the expression of hostile behavior in others.
7. Elevates the feeling of his own worth by degrading others.
8. Devalues and derogates other members in the group.
9. Exhibits bullying in his verbal exchanges.
10. Gets others to do what he wants by the threat of his hostility; controls and coerces with anger.
11. Finds it easy to focus his attention and efforts upon his work; has good powers of concentration.
12. Tends to deprecate the work of the group.
13. Experiences anger as a conscious affect in situations where it is, by usual standards, an "appropriate" emotional response.
14. Sarcastic: tends to make bitter, caustic or stinging remarks expressing his disagreement, disapproval, or depreciation, especially by the use of inverted or ironical statements.
15. Tends to express feelings of hostility overtly and directly toward the person involved.
16. Purposely antagonizes certain persons whom he doesn't like.
17. Counters hostility with hostility.

18. Bickering, heckling, quibbling; given to petulant, petty quarreling.
19. Manifests a generally critical, censuring, fault-finding attitude toward others.
20. Carries a heavy work load.
21. Contemptuous: has an attitude of scorn, disdain, or superiority toward persons or activities which he looks upon as unworthy or otherwise beneath him.
22. Is querulous and aggressive in manner; relates to others in a "bristling," aggressive fashion.
23. Often hostile without being aware of it.
24. Prefers to work alone.
25. Gets drawn into rows and noisy quarrels.

**APPENDIX D. VARIANCES OF SUBJECTS' PERCEPTIONS
OF EACH OTHER**

APPENDIX D

Variances of Subjects' Perceptions of Each Other

Subjects	Bales Categories of Behavior							
	1	2	3	4	5	6	7	8
Sensitizers in majority rated by repressors in minority	2.36	4.63	1.66	3.66	1.15	.083	1.32	.424
Repressors in majority rated by sensitizers in minority	3.30	7.15	6.42	8.08	4.24	6.18	6.63	4.33
Sensitizers in minority rated by repressors in majority	5.32	7.06	4.89	4.35	4.31	1.61	2.39	3.11
Repressors in minority rated by sensitizers in majority	11.27	10.63	3.24	5.90	7.11	5.36	6.27	2.27

APPENDIX E. INDIVIDUAL SCORES (RAW DATA)

Individual Scores on the Various Tests

Judges' ratings with Bales categories																
Sub- ject	MFPT ^a															
			Rorschach		R-S score											
	Group	Age	S.E.C. ^b	Rater	Rater		1	2	3	4	5	6	7	8	Sum 4-8	
Repressors in Majority																
1	R ^c 1	18	2	10	6	42	14	4	6	4	4	5	13	3	29	17
2	R 1	20	2	0	0	40	3	10	10	9	12	6	3	10	40	14
3	R 1	18	2	10	10	43	7	3	12	10	5	9	10	6	40	31
4	R 2	19	2	10	8	43	7	9	8	5	6	6	4	6	27	12
5	R 2	20	2	1	0	46	12	5	11	11	10	12	12	5	50	35
6	R 2	19	2	0	0	40	13	3	15	15	14	15	15	10	69	48
7	R 3	18	2	7	2	47	3	8	5	3	3	3	3	3	15	7
8	R 3	19	2	7	3	42	3	8	6	6	4	3	3	3	19	5
9	R 3	19	2	7	4	48	6	5	11	12	9	9	7	5	42	18
10	R 4	18	2	6	7	30	12	3	14	15	14	15	14	7	65	49
11	R 4	19	2	4	4	39	4	15	4	5	3	3	3	3	17	6
12	R 4	18	2	0	0	39	13	3	14	14	13	15	15	8	65	51
13	R 5	20	2	6	4	29	7	7	12	10	8	7	5	3	33	22
14	R 5	19	2	3	4	27	9	6	4	14	15	12	12	7	60	36
15	R 5	20	2	12	7	48	4	10	5	5	6	4	4	4	23	13
16	R 6	18	2	0	0	42	9	6	11	11	10	9	6	4	40	33
17	R 6	18	2	4	2	47	13	12	9	4	5	4	7	3	23	6
18	R 6	18	2	5	3	38	8	3	15	14	12	11	9	8	54	16
19	R 7	18	2	7	2	42	5	14	5	3	3	3	3	3	15	5
20	R 7	19	2	11	9	44	15	3	12	12	12	12	14	7	57	33
21	R 7	18	2	6	2	39	14	3	15	14	12	10	14	9	59	33
22	R 8	24	2	10	9	47	11	4	11	9	8	9	6	6	38	25
23	R 8	25	2	2	0	45	4	3	14	15	12	15	5	15	62	48
24	R 8	27	2	3	3	47	8	5	6	10	13	11	7	10	51	34
25	R 9	18	2	1	0	37	4	3	12	13	13	12	8	12	58	33
26	R 9	18	2	10	4	33	3	15	3	3	3	3	3	4	16	2
27	R 9	19	2	8	3	44	4	4	10	14	13	13	10	12	62	50
28	R 10	19	2	5	6	41	9	4	10	10	12	10	10	12	54	39
29	R 10	18	2	2	1	43	10	4	8	7	4	4	6	4	25	7
30	R 10	19	2	10	10	43	5	4	13	12	8	9	6	6	41	23
31	R 11	23	2	7	7	46	4	9	6	6	5	5	3	4	23	11
32	R 11	24	2	7	4	45	4	8	9	4	4	4	3	4	19	6
33	R 11	25	2	6	4	35	4	3	15	15	14	14	11	12	66	37

- ^a - Minnesota-Ford Pool Traits - number of traits marked true by three judges
^b - Social Economic Class
^c - Repressor group

Individual Scores on the Various Tests (continued)

Judges' ratings with Bales categories																		
Sub- ject	Rorschach						R-S score											MFPT ^a
	Group	Age	S.E.C. ^b	Rater														
				A	B	1		2	3	4	5	6	7	8	Sum 4-8			
Repressors in Majority																		
34	R ^c	12	18	2	2	4	42	4	3	12	13	9	9	5	8	44	29	
35	R	12	19	2	1	3	25	7	5	11	11	9	10	11	8	49	39	
36	R	12	18	2	5	7	38	7	7	8	6	8	8	7	7	36	31	
Repressors in Minority																		
1	S ^d	1	22	2	1	1	43	9	7	7	4	3	5	8	3	23	18	
2	S	2	18	2	6	5	37	6	3	14	13	9	8	7	6	43	30	
3	S	3	19	2	1	2	43	3	14	5	3	3	3	3	3	15	6	
4	S	4	18	2	4	1	32	13	5	7	12	14	14	15	12	67	52	
5	S	5	18	2	2	0	42	10	3	15	13	10	12	11	6	52	29	
6	S	6	19	2	2	3	27	14	3	12	15	14	14	15	11	69	50	
7	S	7	18	2	7	5	33	4	10	5	5	3	3	3	4	18	5	
8	S	8	18	2	8	8	33	12	3	14	13	7	10	15	4	49	21	
9	S	9	19	2	2	2	48	5	12	4	3	6	4	6	6	25	5	
10	S	10	19	2	0	0	35	8	4	11	4	6	6	7	6	29	17	
11	S	11	18	2	10	10	38	7	4	12	12	9	10	9	8	49	18	
12	S	12	20	2	8	8	32	8	4	8	11	7	7	10	8	43	34	
Sensitizers in Majority																		
1	S	1	24	2	6	3	112	8	3	15	10	5	8	7	4	34	23	
2	S	1	23	2	0	0	78	7	10	4	3	3	4	4	3	17	14	
3	S	1	25	2	2	2	79	4	6	5	5	10	5	3	9	32	27	
4	S	2	18	2	4	0	81	3	10	9	5	6	3	3	4	21	9	
5	S	2	19	2	7	4	92	5	5	9	8	9	7	5	4	33	30	
6	S	2	18	2	8	8	81	5	15	4	3	3	4	3	3	16	4	
7	S	3	19	2	10	7	106	5	3	14	15	12	14	13	11	65	33	
8	S	3	19	2	8	4	80	12	11	5	4	8	9	10	12	43	47	
9	S	3	20	2	0	2	78	3	11	8	5	6	6	5	5	27	11	
10	S	4	18	2	2	0	97	5	11	7	8	4	6	7	4	29	17	
11	S	4	18	2	0	0	86	5	4	11	14	11	12	13	8	58	46	
12	S	4	19	2	6	4	87	5	5	15	11	9	10	5	5	40	13	
13	S	5	18	2	6	4	88	8	6	9	12	13	12	9	13	59	52	
14	S	5	19	2	12	9	89	3	15	3	3	3	3	3	3	15	1	
15	S	5	19	2	0	6	83	3	10	6	5	8	6	5	7	31	17	
16	S	6	19	2	6	7	108	6	5	11	10	10	8	7	7	42	26	

- ^a - Minnesota-Ford Pool Traits - number of traits marked true by three judges
^b - Social Economic Class
^c - Repressor group
^d - Sensitizer group

Individual Scores on the Various Tests (continued)

Judges' ratings with Bales categories																	
Sub- ject	MFPT ^a																
	Group	Age	S.E.C. ^b	Rorschach		R-S score											
				Rater A	Rater B		1	2	3	4	5	6	7	8	Sum 4-8		
Sensitizers in Majority																	
17	S ^d	6	18	2	12	10	103	5	10	6	6	8	7	8	7	36	22
18	S	6	20	2	10	2	102	4	13	3	3	5	3	3	4	18	4
19	S	7	19	2	6	4	79	8	6	7	6	6	6	5	3	26	12
20	S	7	18	2	6	7	80	7	5	7	8	6	6	10	5	35	23
21	S	7	19	2	10	11	78	3	10	4	3	4	4	3	4	18	2
22	S	8	18	2	6	3	94	3	8	10	6	7	4	3	5	25	10
23	S	8	18	2	4	4	88	7	11	4	3	4	4	6	4	21	10
24	S	8	19	2	2	0	99	4	3	11	14	12	11	11	11	59	36
25	S	9	19	2	12	10	85	14	4	13	14	12	15	13	11	65	50
26	S	9	18	2	0	0	84	5	14	10	3	5	4	4	7	23	8
27	S	9	19	2	2	2	83	9	8	11	7	7	9	8	7	38	4
28	S	10	20	2	3	2	99	11	4	12	7	4	4	7	3	25	7
29	S	10	19	2	4	4	95	13	4	13	8	4	4	4	3	23	2
30	S	10	19	2	8	5	88	3	15	3	3	3	3	3	3	15	1
31	S	11	18	2	10	9	81	4	4	12	13	10	11	9	10	43	28
32	S	11	19	2	2	0	89	11	11	6	6	4	7	6	5	28	7
33	S	11	18	2	8	6	80	8	10	10	6	7	5	5	7	30	16
34	S	12	19	2	1	2	100	5	8	9	6	4	5	4	3	22	7
35	S	12	21	2	3	2	112	5	7	10	5	6	4	4	4	23	7
36	S	12	22	2	0	2	112	5	5	8	5	3	6	3	3	20	1
Sensitizers in Minority																	
1	R ^c	1	18	2	20	13	81	12	5	8	6	4	6	11	3	30	13
2	R	2	20	2	6	4	83	5	13	5	5	5	5	6	6	27	12
3	R	3	18	2	5	4	81	6	5	9	10	10	10	8	8	46	26
4	R	4	19	2	14	14	83	4	13	6	5	8	4	3	6	26	15
5	R	5	20	2	2	2	92	7	7	7	7	8	6	8	4	33	14
6	R	6	18	2	12	9	87	3	10	5	7	13	14	13	12	59	52
7	R	7	19	2	2	2	91	3	10	4	5	9	8	3	10	35	22
8	R	8	29	2	6	2	103	12	14	4	3	4	3	3	4	17	3
9	R	9	18	2	6	4	78	9	5	12	11	10	10	12	8	51	35
10	R	10	20	2	4	1	78	3	13	6	3	3	3	3	3	15	1
11	R	11	25	2	4	3	107	4	3	10	13	14	11	13	13	64	53
12	R	12	18	2	15	11	88	8	3	13	9	7	6	7	4	33	10
^a - Minnesota-Ford Pool Traits - number of traits																	

- ^a - Minnesota-Ford Pool Traits - number of traits marked true by three judges
^b - Social Economic Class
^c - Repressor group
^d - Sensitizer group

Individual Scores on the Various Tests (continued)

Judges' ratings with Bales categories																	
Sub- ject	Rorschach R-S score MFPT ^a																
	Group	Age	S.E.C. ^b	Rater		R-S score											
				A	B		1	2	3	4	5	6	7	8	Sum 4-8		
Control subjects with repressors in majority																	
1	R ^c	1	19	2	4	0	65	3	8	9	7	6	6	4	6	29	24
2	R	2	19	2	6	2	65	3	14	4	3	4	3	3	5	18	20
3	R	3	18	2	4	6	65	6	8	8	7	5	5	5	3	25	6
4	R	4	19	2	3	3	60	7	8	5	6	4	4	8	3	25	16
5	R	5	20	2	4	5	62	3	12	5	4	4	3	3	10	24	18
6	R	6	19	2	3	3	65	12	12	4	4	3	4	5	3	19	4
7	R	7	18	2	1	2	60	9	3	11	13	11	10	9	5	48	29
8	R	8	28	2	4	0	60	7	14	3	3	4	3	4	3	17	18
9	R	9	18	2	8	9	60	13	3	13	15	12	13	12	8	60	33
10	R	10	19	2	2	3	60	7	8	8	6	5	7	6	5	29	26
11	R	11	26	2	0	1	61	10	5	13	12	12	8	8	8	48	37
12	R	12	18	2	0	0	64	4	15	3	3	3	3	3	3	15	4

Control subjects with sensitizers in majority																	
1	S ^d	1	26	2	8	3	63	10	3	14	11	7	9	6	8	41	49
2	S	2	18	2	0	0	62	13	4	12	11	7	8	9	6	41	23
3	S	3	19	2	3	1	60	5	7	11	11	9	10	10	8	48	30
4	S	4	19	2	5	3	62	7	4	10	11	10	10	8	9	48	30
5	S	5	18	2	8	5	64	4	7	9	8	10	9	6	7	40	27
6	S	6	20	2	5	4	61	6	5	10	12	12	9	6	7	46	34
7	S	7	19	2	6	5	60	5	4	9	7	7	7	5	7	33	27
8	S	8	18	2	13	8	60	5	11	5	4	3	3	4	4	18	12
9	S	9	20	2	8	6	65	6	3	14	15	14	14	14	11	68	39
10	S	10	19	2	6	3	61	3	7	9	9	5	5	3	3	25	2
11	S	11	19	2	4	2	60	6	7	5	5	9	5	8	8	35	24
12	S	12	20	2	1	0	60	6	3	13	10	7	8	5	4	34	7

- ^a - Minnesota-Ford Pool Traits - number of traits marked true by three judges
^b - Social Economic Class
^c - Repressor group
^d - Sensitizer group