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**ATTITUDE CHANGE: A FUNCTION OF PER-
SONALITY, DEGREE OF DISCREPANCY,
CERTAINTY OF INITIAL JUDGMENT, AND
CONDITIONS OF SUBTLETY OF INFLUENCE.**

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ATTITUDE CHANGE: A FUNCTION OF PERSONALITY,
DEGREE OF DISCREPANCY, CERTAINTY OF
INITIAL JUDGMENT, AND CONDITIONS
OF SUBTLETY OF INFLUENCE

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Norman, Oklahoma

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ATTITUDE CHANGE: A FUNCTION OF PERSONALITY
DEGREE OF DISCREPANCY, CERTAINTY OF
INITIAL JUDGMENT, AND CONDITIONS
OF SUBTLETY OF INFLUENCE

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CHAPTER I

INTRODUCTION

A major problem of both practical and theoretical significance concerns the identification of relevant variables involved in attitude change. Current trends in research suggests at least two influential variables as well as the nature of their influence on attitude change. (Byrne, 1961; Holtzman, 1965). One variable is the dimension of disagreement or discrepancy. Another important variable is a personality dimension which appears to divide Ss on the basis of their tendency to change their own attitudes or judgments in the direction of attitudes, judgments, etc., of others (Christie & Lindauer, 1963; Worchel & McCormick, 1963; Deutsch & Solomon, 1959). Both dimensions of personality and discrepancy represent current trends in research efforts to isolate and identify significant factors effecting attitude change. The primary purpose of this study is to explore the

manner in which these two dimensions interact in effecting attitude change.

The Effect of Discrepancy on Attitude Change

The dimension of discrepancy refers to the amount of disagreement or discrepancy between an S's initial attitude and the information, judgment, etc., which is encountered. For example, Fisher and Lubin (1958) had Ss judge the number of paratroopers in a picture which was presented below the threshold for accurate counting, and judgments of another person were then introduced which varied in disagreement from a small number of paratroopers to a very large number. By varying the difference in judgments of number, Fisher, et. al., manipulated what they termed "distance" which is equivalent to the dimension of discrepancy as used in this study. Such a dimension has been used by a variety of writers in psychological research, and corresponds to the "opinion deviance" as used by Festinger, Gerard, Hymovitch, Kelly and Raven (1952), "size discrepancy" as used by Ash (1956), and "discrepancy" as used by Sherif, Sherif and Nebergall (1965).

A large number of studies suggest a positive relationship between the degree to which new information is discrepant from an initial attitude of an S and the amount of change in that attitude in the direction of the introduced discrepancy (Fisher, Rubinstein, & Freeman, 1956) Fisher & Lubin, 1958; Goldberg, 1954; Hovland & Pritzker, 1957; Ewing, 1942; Goldberg, 1954; Sims, 1938). These data indicate that when disagreement results in attitude change in the direction of

the disagreeing information, the relationship between the amount of change and the size of the discrepancy is positive. However, as Hovland, Harvey, and Sherif (1957) have noted:

"...a fairly common finding even in these studies is that some individuals shift their stand away from that (discrepant) information." (p. 244)

Such a shift in the initial attitude in a direction opposite from the introduced discrepancy has been called "contrast" behavior, or the so called "boomerang effect" (Hovland, Harvey & Sherif, 1957).

Hovland, Harvey and Sherif (1957) introduced the idea that contrast behavior was also directly related to the dimension of disagreement or discrepancy. In what has been described as "a few brilliant chapters" (Moscovici, 1963 p. 420), this view was amplified by Sherif and Hovland (1961) as well as by Sherif (1960). They offer a convincing argument that the dimension of discrepancy directly affects the direction of attitude change, i.e., change toward or away from the introduced discrepancy. The most extensive and recent presentation of this argument is found in Sherif, Sherif & Nebergall, (1965).

Generalizing from psychophysical weight lifting studies, Hovland, et. al., (1957) proposed that discrepant information or arguments for discrepant attitudes affect initial attitudes much the same as an anchor affects the judgments of a series of weights. When introduced information is discrepant from an initial attitude to only a small degree, the effect is a change in that attitude toward the discrepant position, i.e., assimilation. This range of relatively small discrepancy

is called the "latitude of acceptance". As the difference between the initial attitude and the introduced attitude is increased, a point is reached where assimilation behavior will no longer be observed. Hovland, et. al., argue that with further increases in discrepancy beyond this point, the S will change his initial attitude in a direction opposite from the introduced attitude, i.e., contrast behavior. This change of relatively large discrepancies is termed the latitude of rejection.

Many studies are presented in Sherif, Sherif and Nebergall (1965) which strongly support the position that the magnitude of introduced discrepancy is a prime factor in determining assimilation or contrast behavior. The content of the attitude studies reported varies from attitudes toward prohibition in Oklahoma to issues in the 1957 and 1960 presidential election. The typical procedures in these studies requires the Ss to sort a series of statements into any number of categories so that items in each category seem to the S to belong together because of their favorableness or unfavorableness toward a particular subject or issue. The S may then be asked which categories are most acceptable to him and which are most objectionable. With this "own categories technique", an S's attitude toward a particular issue may be measured while the S believes he is engaged in an "objective" sorting task. Those who chose a few extreme statements as acceptable are designated to be Ss with strongly held, extreme positions. The few choices of statements which are acceptable

characterize these S's relatively short "latitude of acceptance" for positions which deviate from their own. Similarly, the many statements which are objectionable characterize their relatively broad "latitude of rejection" for opinions which deviate from their own. Sherif, Sherif and Nebergall (1965) argue that:

"Together, the acceptable and objectionable positions form the individuals reference scale for judging specific statements, objects and events on the issue." (p. 7)

In the study reported by Hovland, et. al., (1957), opposite, extreme and moderate arguments were presented to Ss holding an extreme positions and Ss holding moderate positions. Only the moderate group assimilated toward the extreme argument, while Ss with an extreme position opposite from the extreme argument presented manifested contrast behavior. Many studies of this nature are presented by Sherif, Sherif and Nebergall (1965) which strongly support their position that introduced information affects initial attitudes as an anchor weight affect judgements. Within a range of relatively small discrepancy described as the "latitude of acceptance", assimilation occurs, and within the range of relatively larger discrepancy, i.e., "latitude of rejection", contrast behavior results.

Effect of Ego-Involvement and Nature of Influence
Attempt or Attitude Change

There is an apparent disagreement between (a) studies reporting a positive relationship between the amount of discrepancy and the amount of change toward the discrepancy

(Fisher, Rubinstein & Freeman, 1956; Hovland & Pritzker, 1957), and (b) studies indicating that as discrepancy is increased, assimilation behavior will be followed by contrast behavior (Hovland, Harvey and Sherif, 1957; Sherif, Sherif & Nebergall, 1965). Sherif, et. al., (1965) account for this apparent disagreement in data by pointing to two factors which are not controlled in many other research efforts. These two factors are (1) procedures which result in the influence factor obvious to Ss or which hide³ the nature of influence involved in the study and (2) the degree of ego involvement or the extent to which the S's initial position is of personal relevance to him.

The procedures used by many other researchers consist of relatively obvious means of measuring initial and final attitudes (Zimbardo, 1960; Worchel & McCormick, 1963), while Sherif, et. al., (1965) use the "own categories technique" which makes the measurement and remeasurement of attitudes relatively hidden or concealed from the Ss. As Sherif, et. al., (1965) note, the Ss in many studies where attitude measurement is fairly obvious:

"...surely are not unaware that repeating the (judgment) task has something to do with the investigator's research interests" (p. 71).

Relatively obvious measurement procedures which make the influence nature of the research known to the Ss would appear to complicate the results with such factors as attitudes toward the experimenter, attitudes toward attempts at forcing compliance, e.g., resistance to change does appear to be affected by

relatively obvious influence attempts. (Kerrick, McMillan, 1961). Thus, as Sherif, et. al., argue, it would seem most helpful to use procedures which do not suggest an interest in forced compliance unless one is interested in the effect of such obvious procedures.

The second difference between the studies reported by Sherif, et al., (1965) and those not reporting contrast behavior is the extent to which the Ss were ego involved in the initial attitude. It has been argued that if the individual is not involved personally in the initial attitude, changing that attitude is a very different phenomenon from the change in an attitude with which the individual feels a very personal concern (Sherif, Sherif & Nebergall, 1965; Sherif & Sherif, 1956; Sherif & Cantril, 1947). Describing attitudes as having "motivation-affective properties", and differentiating attitudes from other "habits", Sherif and Sherif (1956) argue that:

"This criterion differentiates an attitude from other learned items in the psychological make-up of the individual. Attitude toward God or attitude toward one's clique is quite different from the habit of putting matches in the right-hand pocket of one's coat." (p. 495)

Those procedures in studies which found no contrast effect and which produced only a positive relationship between discrepancy and change toward discrepancy such as those by Fisher, et. al., (1956; 1958) made little effort to insure ego-involvement on the part of the Ss. The Fisher, et. al., procedures involved asking the Ss to participate in a study for the purpose of finding a normative threshold. No ego-

involving instructions were administered which might have resulted in the choices or estimates being personally important to the Ss as were the case with other studies with similar findings (Goldberg, 1954; Hovland & Pritzker, 1957; Ewing, 1942). Thus, the studies reporting a direct positive relationship between change and discrepancy seem to represent the reaction of Ss who are not personally involved in their judgments or attitudes. Sherif, et. al., (1965) argue that findings under such conditions are much different than results found when the attitudes have a high level of personal importance to the Ss:

"When a communication is extremely discrepant, change toward that communication is never a possible alternative for a highly involved person" (p. X).

An independent study by Freedman (1964) offers strong support for the argument that the extent of ego involvement has a significant effect on attitude change, particularly in response to high levels of discrepancy. Using instructions which maximized the personal relevance of a choice for one group and instructions which minimized the self-relevance for another group, Freedman introduced three levels of discrepancy; low, medium and high. He found that both groups assimilated more to medium discrepancy than low discrepancy. When a high level of discrepancy was introduced, the low involved Ss continued to show increased assimilation as in the Fisher, et. al., studies (1956;1958). However, Ss which had received instructions maximizing the self relevance of the choice manifested no assimilation in

and descriptions of low esteem Ss as more easily persuasible and of high esteem Ss as more resistant to persuasion, and (b) the pilot findings that low esteem Ss were more resistant to moderate discrepancy, while high esteem Ss appeared to be more persuasible. The difference in results was thought to be due to the differing procedures. Worchel and McCormick (1963) offered high and low esteem Ss a choice between two alternatives and then introduced an argument for the unchosen alternative. Ss were asked to rate the source of discrepancy on social desirability scales and then they were asked to note the certainty of their original judgment. Under the Worchel, et. al., conditions, high esteem Ss were more resistant to change, i.e., more certain of original judgment, and low esteem Ss were more uncertain of their initial judgment. Even though difficult to compare, it appeared reasonable that the two alternative choices used by Worchel, et.al., were more comparable to the moderate discrepancy used in the first preliminary study described above. If these discrepancies were roughly comparable, then the Worchel, et.al., procedures result in an effect on high and low esteem Ss which is markedly different from the effect produced by the present writer's procedures.

The critical difference in procedures may have been the extent to which the Ss perceived and responded to a relatively obvious attempt at social influence; that is, the extent to which the S's attention was directed toward influence attempts. Asking an S to rejudge his initial choice or to judge the current certainty of his past choice following an encounter with

Rogers (1951) used self-ideal agreement to differentiate between Ss who experienced themselves as being "bad", not what they felt they should be, unworthy, etc., from Ss who were relatively well satisfied with themselves. Rogers further suggested that whether an S attributed little value to themselves (low esteem Ss) or high value to themselves (high esteem Ss), they tended to behave consistently with their self concept. Such consistency between ideas and behaviors, i.e., cognitive structures, is also an assumption of the major theories of cognitive functioning, such as Festinger's theory of cognitive dissonance (1957), Heider's theory of cognitive balance (1958), Osgood's theory of attitudinal congruence (Osgood & Tannenbaum, 1955), and Kelly's system of personal constructs (1955). As Deutsch and Solomon (1959) have noted, it is by no means rare to find persons who seem to have a vested interest in behaving in such a way as to maintain a negative conception of themselves as "sick", "incompetent", "unlikeable", or "unworthy".

As might be expected, low esteem Ss tend to accept negative information about themselves while high esteem S tend to reject such information (Stotland & Hiller, 1962; Stotland, Thorley, Thomas, Cohen & Zander, 1957). Stotland and Hiller (1962) introduced information about the performance of a person who the Ss believed was much like themselves. When this person was reported to have done poorly at a task, low esteem Ss lowered their evaluation of their own performance. However, low esteem S did not adjust their personal task

evaluation to a proportionate degree when they were told that the person with whom they were similar did very well. The authors interpreted these results to indicate that low esteem Ss only assimilate or incorporate information consistent with their self concept.

High and low esteem Ss appear to use quite different means of defense. Cohen (1959) describes high esteem Ss as using primarily avoidance defenses while low esteem Ss are described as being inclined toward "sensitizing" defenses. Cohen (1959) hypothesized that:

"..threatening appeals may be rejected more by those of high self-esteem than those of low self-esteem. On the other hand, appeals which enhance an individual's self picture might be accepted more by the highs than by the lows." (p. 119)

Stotland and Hiller (1962) offer support for Cohen's hypothesis of different defenses for high and low esteem Ss as do other authors such as Allison and Worchel (1957) and Veldman and Worchel (1961). The use of these different defenses is also indicated by the positive relationship between scores on the Repression-Sensitization Scale and the degree to which self and idea-self descriptions differ (Byrne, 1961; Altrocchi, Parsons & Dickoff, 1960). The Repression-Sensitization Scale (R-S scale) is a scale constructed for the purpose of differentiating between Ss who are characterized by being sensitized to threat and Ss who are characterized by avoiding and denying defenses (Byrne, 1961). The positive correlations reflect the use of sensitizing defenses by low esteem Ss. Sensitizing and avoidance defenses are

illustrated in a study by Tempone (1962) who found that while there was no significant differences in recognition threshold for non-threat words, however the sensitizers showed a lower threshold for threat words than did repressors.

The low self value and sensitizing defenses to threat of the low esteem Ss are reflected in the many studies describing them as more anxious, insecure and self-deprecating than high esteem Ss (Byrne, 1961; Hillson & Worchel, 1957; Lucky & Grigg, 1964). The reliance on repressive defenses sometimes results in what has been described as a facade of adjustment which is maintained by denial of errors, hostility, and other threat (Block & Thomas, 1955; Byrne, 1961; Hatfield, 1958; Veldman & Worchel, 1961). The repressive defenses of high esteem Ss appears to result in more direct aggression, while they describe themselves in unaggressive terms (Worchel, 1958; Byrne, 1961). On the other hand, sensitizing defenses of the low esteem Ss appear to result in passive, quiet and unobtrusive behavior as viewed by others, although these Ss describe themselves as aggressive and competitive (Byrne, 1961; Fulgenzi, 1965).

Other findings indicate that Ss characterized by low esteem high anxiety, and sensitizing defenses are more persuasible than are Ss characterized by high self esteem, low anxiety and repressive defenses. For example, highly anxious Ss are higher in persuasibility than low anxious Ss (Bransfield & Papageorgis, 1965), and Ss characterized by avoidance defenses accept more "minimal fear appeals" than "high fear appeals"

(Goldstein, 1959). After an extensive review of the pertinent studies of anxiety, self-esteem, repression vs. sensitizing defenses and persuasibility, Christie and Lindauer (1963) conclude:

"In summary, some respondents, who may be called 'sensitizers', or 'yeasayers,' or 'low social desirability people,' have wide discrepancies between self and ideal self concepts (or simply check more of the total number of offered adjectives), describe themselves as undesirably aggressive or rebellious, see others as dissimilar to themselves and also as unlike each other, are more pessimistic, recognize more aggressive words in a binocular rivalry situation, and accept more suggestions by the experimenter as to the appropriateness of Rorschach responses. Other respondents may be called 'repressors,' or 'naysayers', or 'high social desirability people', and admit little discrepancy between self and ideal-self concepts, describe others in the same socially desirable terms they claim for themselves, are less pessimistic, fail to see aggressive words in a binocular rivalry situation, and reject the experimenter's suggested Rorschach responses." (p. 215)

The generalization that Ss of low esteem are more persuasive than are Ss of high self esteem is also consistent with some of the major theories of cognitive functioning such as Festinger (1957), Heider (1958), Osgood (Osgood & Tannenbaum, 1955) and Kelly (1955). These theories all contain the assumption of psychological movement toward consistency within the cognitive field, part of which are ideas concerning self and ideas concerning the behavior of that "self". Accordingly, an S with a low evaluation of self would tend to value judgments and choices of that self equally low. Under conditions of disagreement from a source of standard value, Ss with lower self value would appear to be more susceptible to change, i.e., judge their past choice as being wrong or in error.

Summary

A review of the literature in attitude change and the literature concerning the self esteem and the repression-sensitization personality dimensions indicate that discrepancy, personality and the nature of the influence attempt significantly affect attitude change. A series of studies were undertaken by the author to explore the effect of these variables on attitude change. In the following section, three experiments are presented which were preliminary to the experiment which is the main concern of this dissertation.

Preliminary Experiments

First Preliminary Study

The generalizations from psychophysical weight lifting studies to attitude change (Hovland, Harvey & Sherif, 1957); Sherif & Hovland, 1961; Sherif, 1960; Sherif, Sherif & Nebergall, 1965) clearly predict that as discrepancy increases, a given Ss will manifest assimilation toward smaller discrepancies and contrast or resist in response to larger discrepancies. Findings associated with self-esteem as a personality dimension strongly suggest that low esteem Ss are more persuasible than high self esteem Ss. In terms of Hovland, Harvey & Sherif, low esteem Ss would appear to have a wider latitude of acceptance than Ss with high esteem. That is, low esteem Ss would assimilate or acquiesce toward advocated positions which represent a greater disagreement from their own position than should the high esteem Ss.

A preliminary study (Wall, 1965a) was conducted to test this hypothesis. Sixty high esteem Ss and sixty low esteem Ss were selected and led to believe they were to be Ss for two separate studies: one concerned with measuring their ability to judge social situations, and the other study concerned with measuring their ability to accurately judge other people. After emphasizing the importance of these two abilities, the Ss were given a very brief history of an individual who was depicted as having a difficult preschool life and a

well adjusted school life prior to accidentally killing another person in a fight. Ss were to judge the appropriate sentence for this "crime", the extent to which society or the individual was responsible, and the certainty of their judgments. Ss were instructed to write a brief paragraph supporting their judgment. The "second study" was then introduced in which E explained that he was interested in the Ss ability to judge other people on the basis of a limited amount of information. The Ss were then given pre-arranged judgments which were explained as being the judgments of a "peer" who had been matched with each S on the basis of age, college classification, and sex. These pre-arranged judgments contained a standard paragraph in which only key words were changed to support the indicated judgment. The "peer judgments" varied in the extent to which they disagreed with the S's judgments one point on a nine point scale (low discrepancy), three points on a nine point scale (medium discrepancy) and five points on the nine point scale (high discrepancy). Ten high esteem and ten low esteem Ss were assigned to each discrepancy group. The Ss were to read their "peer's" judgments and evaluate him on a scale of social value.

It was then explained that there was one more aspect of this study to complete. Ss were given a paragraph concerning ~~the~~ the early development of the individual about whom they had made their initial judgments. They were led to believe that this new information was very important data which was "critical" for accurate assessment of the problem.

The "new information" consisted of a series of ambiguous and contradictory sentences. After reading this "new and important information", new judgments were made concerning the appropriate sentence, responsibility and certainty of judgment.

In this preliminary study, derogation of the source of discrepancy increased as discrepancy increased ($p < .025$). Such a finding is consistent with other studies (Festinger, 1957; Brehm & Cohen, 1959; Worchel & McCormick, 1961; Gerard, Eilevans & Malcolm, 1964). Attitude change indicated that low esteem Ss assimilated toward low discrepancy and contrasted slightly with moderate discrepancy reflecting a narrow latitude of acceptance. However, attitude changes of high esteem Ss reflected contrast toward low discrepancy and assimilation toward moderate discrepancy which reflects a relatively wide latitude of acceptance. Both groups assimilated slightly toward high discrepancy. This interaction between self-esteem and discrepancy was significant beyond the .025 level of confidence. A further finding was that initial certainty of judgment was a significant factor such that Ss indicating an initial certainty of 70 percent or lower assimilated more than did Ss of higher initial certainty ($p < .05$). A trend ($p < .10$) suggested an interaction effect between initial certainty and esteem such that low certainty increased assimilation for high esteem Ss more than for low esteem Ss.

Implications for low and high esteem Ss

There is an apparent difference between (a) the studies

and descriptions of low esteem Ss as more easily persuasible and of high esteem Ss as more resistant to persuasion, and (b) the pilot findings that low esteem Ss were more resistant to moderate discrepancy, while high esteem Ss appeared to be more persuasible. The difference in results was thought to be due to the differing procedures. Worchel and McCormick (1963) offered high and low esteem Ss a choice between two alternatives and then introduced an argument for the unchosen alternative. Ss were asked to rate the source of discrepancy on social desirability scales and then they were asked to note the certainty of their original judgment. Under the Worchel, et. al., conditions, high esteem Ss were more resistant to change, i.e., more certain of original judgment, and low esteem Ss were more uncertain of their initial judgment. Even though difficult to compare, it appeared reasonable that the two alternative choices used by Worchel, et.al., were more comparable to the moderate discrepancy used in the first preliminary study described above. If these discrepancies were roughly comparable, then the Worchel, et.al., procedures result in an effect on high and low esteem Ss which is markedly different from the effect produced by the present writer's procedures.

The critical difference in procedures may have been the extent to which the Ss perceived and responded to a relatively obvious attempt at social influence; that is, the extent to which the S's attention was directed toward influence attempts. Asking an S to rejudge his initial choice or to judge the current certainty of his past choice following an encounter with

discrepant information (Worchel procedures) appears to be a procedure which makes the influence nature of the study fairly obvious to the S. Similar procedures have been described by other authors as making the influence attempts fairly obvious to the Ss (Sherif & Sherif, 1956; Sherif, Sherif and Nebergall, 1965). Under such conditions, the S's response would appear to represent in part, his reaction to a perceived attempt at direct interpersonal influence. However, in the conditions of the preliminary study, the S's attention was directed to the new information which they were led to believe would influence their initial judgment. Under these justified conditions, E's interest in social influence or forced compliance is much less obvious, and change in attitude reflects S's reaction to discrepancy under conditions in which change can be justified or attributed to personal choice rather than "giving in" or "resisting" a direct attempt to force compliance.

From this line of reasoning, the findings of Worchel, et. al., (1963), suggest that when attention is directed toward the attempts at social influence, or under conditions in which social influence is fairly obvious factor (unjustified conditions), high esteem Ss are resistant to discrepancies which are moderate and low esteem Ss characteristically acquiesce. The preliminary study suggests that when attitude change can be justified as a relatively autonomous choice ("justified" conditions) or not attributed to the results of direct influence attempt, low esteem Ss are resistant, while high esteem Ss acquiesce to moderate

discrepancies.

High esteem Ss are often associated with resistance while low esteem Ss are associated with acquiescence. However, the difference between the pilot findings and other studies, e.g., Worchel and McCormick (1961), suggest that resistance and acquiescence are characteristics of both low and high esteem Ss depending on the conditions under which the influence attempt is made.

Second Preliminary Study

The procedure was the same as in the first preliminary study except (a) discrepant peer ratings at only the moderate level were introduced and (b) just prior to receiving the "new information" and making a new judgment, the Ss were asked to indicate the extent to which they were certain that their initial judgment was accurate (Wall, 1965b). This latter aspect of the procedure parallels those of Worchel and McCormick (1961) and was expected to make the influence nature of the study apparent to the Ss without clearly communicating to them that the E wanted them to have such awareness. It was predicted that under these unjustified conditions, low esteem Ss would acquiesce or assimilate more than would Ss of high esteem.

Under these conditions, the low esteem Ss assimilated toward moderately discrepant judgments more than did the Ss of high esteem ($p < .05$). These findings support the hypothesis that under conditions in which attempts at social influence are fairly obvious to the Ss (unjustified

conditions), low esteem Ss acquiesce while high esteem Ss resist moderate discrepancies which in turn suggests a wider latitude of acceptance for low esteem Ss than for high esteem Ss.

Comparison of the first and second preliminary studies raised the question of the effect of justified and unjustified conditions on the reactions of low and high esteem Ss to all three levels of discrepancy.

Third Preliminary Study

In this study by the author (Wall, 1965c), again using the same basic procedures, high and low esteem Ss were selected on the Worchel SAI (Worchel, 1957) and given low, moderate and high discrepant judgments under two different conditions. One group was asked to indicate the certainty of their initial judgment just prior to receiving the "new information" (unjustified conditions). The other group received the new information without any reference to their initial judgment (justified condition). Ten high esteem and ten low esteem Ss were assigned to each discrepancy group in each condition. At the completion of the attitude change study, the R-S scale (Byrne, 1961) was administered.

The hypotheses were that (a) high esteem Ss would respond to justified conditions with a relatively wide latitude of acceptance which would include moderate discrepancy and a relatively narrow latitude of assimilation which would exclude the moderate discrepancy in the unjustified condition, and (b) low esteem Ss would respond to justified

conditions with a relatively narrow latitude of acceptance which would exclude moderate discrepancy and a relatively wide latitude of assimilation which would exclude the moderate discrepancy in unjustified conditions.

Analysis of the attitude change scores revealed no significant variation among conditions, discrepancy, and esteem groups. Furthermore, there was no variation beyond the .25 level of confidence within either conditions among discrepancy, esteem and initial certainty.

Analysis of the Worchel SAI (Worchel 1957) scores of self-ideal agreement revealed a correlation of only -.32 with the R-S scores, much lower than has been reported by other researchers (Byrne, 1961; Byrne, 1964). There were a number of Ss who received scores in the lower quartile of the R-S scale (repressors) whose self-ideal agreement was in the lower quartile (low self-esteem). Similarly, many Sensitizers scored at the high esteem end.

Ss were then divided into Repressors and Sensitizers according to scores on the R-S scale (Byrne, 1961) below and above the 50th percentile. Analysis of this data revealed a significant interaction between the R-S personality groups and the conditions ($p < .01$). The Repressors assimilated more in the justified condition than Sensitizers, while the Sensitizers assimilated more in the unjustified condition. Repressors showed a relatively wide latitude of acceptance in justified conditions and a more narrow latitude of acceptance in unjustified conditions, while Sensitizers had a wider latitude of acceptance in unjustified

than justified conditions. The Repressors in this third study behaved in the same way as high esteem Ss behaved in the two previous studies (Wall, 1965a; 1965b). The Sensitizers reacted to the two conditions similar to the low esteem Ss in the earlier studies by the author.

Repressors were more certain of their initial judgments than were the Sensitizers ($p < .005$). Cells which contained Repressors of low initial certainty and cells which contained Sensitizers of high initial certainty contained a very few number of Ss. Five of these 12 cells contained a N of two, and three cells contained a N of three. Thus, certainty was not effectively controlled.

Summary and Interpretation of Preliminary Experimentation

The first two preliminary studies (Wall, 1965a; 1965b) selected Ss on the basis of high and low self esteem and gave rise to results which, if reliable, would seem to be a significant contribution to the understanding of the role of personality factors (self-esteem) in attitude change. These findings indicate that information of moderately discrepant nature is responded to with maximum assimilation by high esteem Ss and minimum assimilation by the low esteem Ss. Furthermore, these studies indicate that the conditions under which the influence attempt is made, i.e., justified or unjustified conditions, had a significant differential effect on the attitude change of high or low esteem Ss. Under justified conditions, high esteem Ss had a relatively wide latitude of acceptance, while the low esteem Ss showed a relatively narrow

latitude of acceptance. Under unjustified conditions, the opposite was the case.

The third study by the author (Wall, 1965c) found the esteem variable to have no effect; however, when the Ss were sorted on a basis of the R-S scale, the Repressors behaved much like the high esteem Ss had behaved in the first two studies and the Sensitizers reacted in a way similar to the low esteem Ss in the earlier studies. One possible interpretation of the inconsistencies in these data is that the two earlier selection procedures resulted in a high proportion of Repressors and Sensitizers within the high and low esteem groups respectively (the R-S scale was not given in the first two studies). If such were the case, all studies would be in agreement as to the reaction of Repressors and Sensitizers to varying amounts of discrepancy administered under two different conditions of subtlety.

A second and more probable interpretation is that in the last study (Wall, 1965c), the Ss were contaminated by other influence studies in which they had participated. One such influence experiment conducted by a class of experimental psychology students used six stooges in an attempt to influence one naive S. This "stooge-influence" experiment was conducted only one day prior to the beginning of the third study which resulted in the factor of esteem showing no significant effect. Many naive Ss and stooges in this other experiment were also Ss in the third preliminary study. Discussion of the "stooge-influence study" among the

psychology students who were Ss in the third preliminary experiment may have been a further complicating factor.

The esteem variable may have been, as originally postulated, the primary factor operating in the first two studies and was not a significant factor in the third study because of the contamination. However, the R-S dimension did relate significantly to attitude change in the third study. Thus, if Ss were selected on a basis of both esteem and the R-S dimension, the high esteem Repressors would behave similar to the high esteem Ss in the first two preliminary studies and similar to the R Repressors in the third study. The sensitizers of low esteem should behave similar to the low esteem Ss in the two earlier preliminary studies and similar to the Sensitizers in the last study.

A complicating factor is that certainty was not controlled in the three preliminary studies. Certainty was found to have a significant effect in the first preliminary study, and the personality dimension differed in initial certainty on the third study. However, high and low certain Ss were neither equally represented in each subgroup of high and low esteem in the first study (Wall, 1965a) nor equally represented in each subgroup of Repressor and Sensitizer groups in the third preliminary study (Wall, 1965b).

In any event, these three studies have shown the following variables to be related to attitude change (a)

personality variables of esteem and repressive-sensitizing defenses, (b) amount of discrepancy encountered, (c) conditions which allow the S to justify his change of attitude vs. conditions which make obvious influence attempts, and (c) initial certainty of judgment. The current study is concerned with the effect of these four variables on attitude change.

CHAPTER II

STATEMENT OF THE PROBLEM

In the field of attitude change, Sherif and his associates have hypothesized and found that relatively small amounts of disagreement or discrepancy will result in an attitude change toward the disagreement, i.e., assimilation. They define the range of discrepancy which results in assimilation as the latitude of acceptance. Their hypothesis also indicates that relatively large discrepancy results in attitude change in a direction away from the disagreement, i.e., contrast, and this range of discrepancy is termed the latitude of rejection. A second body of research in the area of personality indicates that Ss with sensitizing defenses and Ss of low esteem generally acquiesce to influence, while Ss with repressive defenses and Ss of high esteem characteristically resist influence attempts.

Reasoning from these two broad areas of theory and research, it was predicted that Ss of high esteem and/or repressive defenses would manifest a relatively narrow latitude of acceptance, while Ss of low esteem and/or sensitizing defenses would manifest a relatively wide latitude of acceptance. However preliminary studies by the author suggested that such a generalization was contingent upon

justified (subtle) vs. unjustified (obvious) influence attempts. Under justified conditions of influence, Ss of low esteem and Ss with sensitizing defenses were found to have a narrow latitude of acceptance, while Ss with high esteem and Ss with sensitizing defenses were found to have a relatively wide latitude of acceptance. Under unjustified conditions, Ss with low esteem and Ss with sensitizing defenses were found to have a wide latitude of acceptance, while Ss with high esteem and Ss with repressive defenses were found to have a narrow latitude of acceptance.

Preliminary studies were inconsistent in indicating the role of the personality dimension affecting attitude change. Two studies suggested that esteem significantly affected attitude change, while a third study found no effect of esteem but did suggest that the repression-sensitization dimension had an effect on attitude change. A relatively low correlation ($-.32$) between the two personality dimensions suggested that the two measures were relatively independent even though resulting in similar effects on attitude change within each condition. Since both personality dimensions appear to have similar effects on attitude change, the current study will select Ss on a basis of high esteem and repressive defenses as well as low esteem and sensitizing defenses.

With the procedures to be used in the preliminary and current studies, major interactions between personality and discrepancy were found to occur between low and moderate

discrepancy. On the basis of preliminary work by the author including that of the justified and unjustified conditions, the following hypotheses are made:

Hypothesis I Sensitizers with low esteem

- (a) under justified conditions will manifest a relatively narrow latitude of acceptance, i.e., will tend to assimilate more to low than moderate discrepancy and,
- (b) under unjustified conditions will manifest a relatively wide latitude of acceptance, i.e., will tend to assimilate more to moderate than low discrepancy.

Hypothesis II Repressors with high self esteem

- (a) under justified conditions will manifest a relatively wide latitude of acceptance, i.e., will tend to assimilate more to moderate than low discrepancy and,
- (b) in unjustified conditions will produce a relatively narrow latitude of acceptance, i.e., will tend to assimilate more to low than moderate discrepancy.

While the hypotheses concern low and moderate discrepancy, a high discrepancy group will also be included in the interest of examining the affect of such great disagreement on attitude change. Earlier studies suggest that with these procedures extreme discrepancy has less effect on attitude

change than does moderate discrepancy.

Initial certainty of judgment or attitude was suggested by preliminary experimentation to be a possible significant factor affecting attitude change; however, initial certainty was not systematically controlled in these earlier studies. If Ss were selected on the basis of repressive defenses and high esteem vs. sensitizing defenses and low esteem, equated for initial certainty, and subjected to varying discrepancies under justified and unjustified conditions, the nature of the interaction between personality, discrepancy, and conditions of influence should become clear, and the above hypotheses could be tested.

CHAPTER III

METHOD

Experimental Design. One group of Ss were high in self esteem and used repressive defenses (R:HiE group). A second group of Ss were low in self esteem and used sensitizing defenses (S:LoE group). Esteem was measured by Self-ideal agreement, while type of defense was measured by the R-S scale. These two groups were randomly assigned to one of two conditions: Justified or Unjustified condition.

All Ss were administered a task for which they made judgments and indicated the certainty of this judgment. Each subgroup was further divided into Ss who were highly certain of their initial judgment (80 percent or higher), and Ss who were relatively low in the certainty of their judgment. Following the Ss' initial judgment, discrepant information was introduced ostensibly from a peer. Each subgroup was further divided into three subgroups on the basis of the degree to which the information was discrepant from their initial judgment: high, moderate and low discrepancy. Following the introduction of discrepancy, procedures were followed to measure attitude change. The procedures were slightly different for the Justified and Unjustified conditions as will be described later.

The experimental design and number of Ss in each experimental group are indicated in Table 1.

Table 1
Number of Ss Assigned to Subgroups

<u>Discrepancy groups</u>	<u>Repression</u> <u>High Esteem</u>		<u>Sensitization</u> <u>Low Esteem</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
	<u>Certain</u>	<u>Certain</u>	<u>Certain</u>	<u>Certain</u>
	(Justified condition)			
High Discrepancy	5	5	5	5
Moderate Discrepancy	5	6	5	6
Low Discrepancy	5	5	5	5
	(Unjustified condition)			
High Discrepancy	8	5	5	5
Moderate Discrepancy	7	5	5	5
Low Discrepancy	8	5	6	5
Total N = 131				

Worchel Self-Activity Inventory (WSAI). The WSAI (Worchel, 1957) was used as the basis for assigning Ss to high and low self esteem groups. The WSAI is a check list consisting of 54 items. The S indicates the degree to which each item is applicable to himself, and his ideal self on a five point scale ranging from "never" to "very often". The Ss were instructed to check the 54 items on the basis of "how often you do what the items state", and were then directed to check the same 54 items on a basis of "if you were exactly the kind of person you would like to be". The WSAI has been found to have a test-retest reliability for "self"

and "ideal-self" descriptions by college students of .79 and .72 respectively (Worchel, 1957).

Repression-Sensitization Scale (R-S Scale). The R-S scale used in this study was the Byrne (1961) revision of the R-S scale initially used by Altrocchi, Parsons and Dickoff (1960). This revision uses 156 items from the Minnesota Multiphasic Personality Inventory (MMPI), and each item is scored once. Byrne's revised R-S scale has been found to have a corrected split-half reliability of .94 and a test-retest reliability over a three month period of .85 (Byrne, 1961).

Subjects. The Ss were selected from male college undergraduate students enrolled in Psychology I at the University of Oklahoma during the spring semester of 1966. The Ss were initially contacted in their respective Psychology I classes. They were administered the WSAI and immediately afterward the R-S scale. The distribution of scores obtained on the WSAI from this pool of Ss is contained in Table 2, and is quite

Table 2

Frequency Distribution on the Worchel
Self-Activity Inventory for the
Worchel and Wall Studies

Self-ideal Dis- crepancy score	Worchel Study N=153	Wall Study N=365
96-107	3	1
84-95	2	2
72-83	6	5
60-71	16	26
48-59	27	84
36-47	43	125
24-35	37	84
12-23	15	30
0-11	4	8

similar to distribution of scores for a comparable group of Ss at the University of Texas which was obtained by Worchel (1957). The distribution of scores on the R-S scale obtained from the current pool of Ss is contained in Table 3, along with the distribution of scores in Byrne's

Table 3

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

<u>R-S Score</u>	<u>Byrne Study</u>	<u>Wall Study</u>
120-129	0	0
110-119	2	1
100-109	9	5
90-99	31	21
80-89	35	33
70-79	51	58
60-69	72	85
50-59	100	75
40-49	66	61
30-39	26	25
20-29	1	0
10-19	1	0
0-9	0	1
	<u>N= 324</u>	<u>N= 365</u>

normative data (Byrne, 1961). The distribution of R-S scores in the current study is also similar to the distribution obtained by Byrne (1961) for comparable Ss.

One group of Ss was selected on the basis of a WSAI score of 46 or higher and an R-S score of 68 or above (S:LoE group). Another group of Ss was selected on the basis of a WSAI score of 38 or below and an R-S score of 57 or below (R:HiE group). On this basis, the pool of 365

students yielded a group of 90 R:HiE Ss and a group of 78 S:LoE Ss. From these selected Ss, 69 R:HiE Ss were contacted and agreed to participate in the study, and 62 S:LoE Ss agreed to participate. When the Ss were contacted by phone and asked to participate, they were told that the study was a dissertation and that they were being asked to participate because the "tests indicate that you are one of the two particular kinds of people required for this study". They were told that the study involved their ability to make judgments about a social situation as well as involving their ability to make some judgments about other people. They were also told that after the study was completed, the E would be glad to go into detail as to why they had been asked to participate.

Procedure. Ss were administered the experimental procedures in groups of from three to eight. When the Ss arrived at the experimental rooms, they were directed into one of two rooms on the same floor. When the Ss were seated in their experimental room, the following directions were read. The directions for the Ss in the Justified condition were the same with the exception that the remarks inclosed in parenthesis were omitted.

As you probably know, there are many studies in psychology which have clearly indicated the importance of people's ability to judge social situations and their ability to judge other people, even when the information is fairly limited. Such judgment abilities have a well known correlation with how well people get along with others, their sensitivity to others, and their own self knowledge. You have been chosen to be subjects (in two experiments) this evening. (In one study)

I am concerned with your ability to judge social situations, and (in the second study) I am concerned with your ability to judge another person on the basis of a fairly limited amount of information.

(Since these two studies are combined to save time, and) since the (second) study involves a restricted amount of information, it is necessary that you remain silent throughout the duration of (both of) the experiment(s). In order to rigidly control the amount of information available to each of you, and to assure that each receives the exact same amount of information, all communications will either be handed to you in written form, or read aloud, like this. The information given to you will be all that is available to other subjects, and thus no questions concerning the task itself can be answered. Please remember that audible noises such as exclamations, questions, or laughing serves as information for other people.

I am now going to pass out a Social Judgment Sheet which contains a brief description of a difficult situation. You are to read the directions and then begin the task. There is a time limit of 20 minutes, but you will find that you will be able to complete the task in much less time than that. If you finish before the others, please sit quietly until we continue (with the second study). If you would like, you may read the magazines in front of you after you finish with the Social Judgment Sheet.

The Ss were given the Social Judgment Sheet (Appendix A) which requires that they read a few paragraphs concerning a man who accidentally killed another person in a fight. On this sheet, the Ss were directed to decide the degree of responsibility which should be placed on the individual or on society, and their judgments were made on a nine point scale from the individual being "entirely responsible" for the crime. The Ss were also directed to decide the appropriate sentence for this crime on a scale from one to 21 years. Following these two judgments, the Ss were asked to write a brief paragraph justifying their judgments. At the bottom

of the Social Judgment Sheet, they indicated the degree of certainty of their judgment on a nine point scale ranging from absolute certainty to absolute uncertainty.

When all Ss completed the Social Judgment Sheet, their papers were collected, and all of the following instructions were read for the Justified condition. The remarks in parenthesis were omitted for the Ss in the Unjustified condition.

We now have some measure of your ability to evaluate social situations (and the first experiment is almost over). Please remain silent and in your seats, as the study is not yet over.

(I am trying to save some time by using what you have already done as a basis for this second experiment.) This part of the study involves your ability to judge another person on the basis of a limited amount of information. Although the information is limited, most people are able to make some excellent guesses about another person on the basis of this kind of data.

Each of you has been matched with another person who is your own age and who has a similar college classification. Your peer has been assigned the same task of social judgment which you have just completed (in the first experiment), and I am now in the process of collecting everyone's evaluation of this social situation. When all of your peers have completed their task, their papers will be given to you along with a rating sheet which you will fill out describing the kind of person reflected in their evaluation and comments. Please remain as quiet as possible while your peers in the next room are finishing up.

There is a magazine in front of each of you, and if you wish, you may read while you are waiting.

Each of the Ss papers were matched with pre-arranged judgments which were discrepant from the Ss judgment by one, three or five points on the Responsibility scale and two, six or ten points on the Sentence scale corresponding to the Ss

assignment to the Low, Moderate or High Discrepancy Group respectively. Two years of discrepancy on the sentence scale was equivalent to one point of discrepancy on the Responsibility scale. Ss assigned to the Low Discrepancy Group were given a judgment which was discrepant one point on the Responsibility scale and two points on the Sentence scale. Moderate Discrepancy Ss were given prearranged judgments which were discrepant three and six points on the Responsibility and Sentence scale respectively. High Discrepancy Ss were given pre-arranged judgments which were discrepant five and ten points on the Responsibility and Sentence scales respectively.

The prearranged judgments contained a handwritten, standard statement in which key words could be changed so as to explicitly support any one of the points on the Responsibility scale (Appendix B). These statements made only vague reference to the sentence choice, e.g., "The sentence I have indicated seems to me to be appropriate". On the basis of the Ss judgment of responsibility, discrepant judgments of responsibility were chosen with their appropriate supporting statements. The discrepancy was always in a direction toward the mid point of the Responsibility scale (point five). After selecting the appropriate discrepant judgment of responsibility, the appropriately discrepant sentence was marked. Since higher points on the Responsibility scale reflected less responsibility assigned to the individual for his actions, a discrepancy which reflected higher points on the Responsibility scale than the

Ss judgment was accompanied by a discrepancy on the Sentence scale indicating less sentence or punishment. For example, if an S who had been randomly assigned to the Moderate Discrepancy Group chose point four on the Responsibility scale and a sentence of eight years, a discrepant judgment of point seven on the Responsibility scale was selected with it's supporting statement, and a sentence of two years was indicated on the Sentence scale of the discrepant judgment. Certainty of choice on the discrepant judgment was matched exactly with the Ss indicated certainty of judgment.

When the pre-arranged discrepant judgments were ready, they were passed out along with a Person Judgment Sheet (Appendix C), and the following instructions were read to all Ss:

Each of your peers have completed their task now, and their evaluations are being passed out. You are to read your peer's judgments and his comments, decide what kind of person is reflected in these comments, and then fill out the Person Judgment Sheet which you also have.

I am interested in how you feel about this person. Please be free to give your feelings full and wide ranged expression. If you follow your impressions, you will find that you will do much better at this task. Your peer will never know what your evaluation is, or even who evaluated him; so be as honest and as free as you can be.

The Person Judgment Sheet contained general directions and four different nine point scales on which the "peer" was to be rated. These scales were labeled (1) intellectual flexibility, (2) psychological insight, (3) ability to get along with others, and (4) positive regard for others.

These four scales ranged from "extremely low" (one point) to "extremely high" (nine points). These scales were then used to measure the positive or negative value attributed to the source of discrepancy. These scales of social value are similar to those used by Worchel and McCormick (1963) and identical to those used in the three preliminary studies (Wall, 1965a; 1965b; 1965c).

Unjustified Condition: When Ss assigned to the Unjustified condition completed the Personal Judgment sheet, the Additional Information Sheet (Appendix D) was distributed face down, and the following instructions were read:

Please leave these sheets face down on your desk. Please do not turn them over until you are directed to do so.

Please make no comments to each other and follow the directions. If the directions are unclear to you, raise your hand and I will come over to you and try to clarify your questions. Please do not ask your questions out loud, as questions have a very high information value for others.

Remember the initial judgments that you made concerning "Art". You judged where the responsibility should be placed and the sentence that was appropriate. HOW CERTAIN ARE YOU NOW OF THAT JUDGMENT. Please mark down on the back of the sheet in front of you, the degree to which you are certain that your initial judgment was accurate. Mark either zero, ten, twenty, etc., up to 100. That is, mark in units of ten, the percent to which you are certain that your initial judgment was accurate. Make your numbers large and readable.

As soon as you have finished, look up so I can tell when everyone has finished.

From this point on, the procedures are exactly the same as for the Ss in the Justified condition.

Justified Condition: When the Ss assigned to the

Justified Condition completed the Person Judgment Sheet, the Additional Information Sheet was distributed, and the following instructions were read:

The last part of this study will not take more than a few minutes more so please remain quiet and in your seats for just a few minutes longer.

This is the last part of the first study and involves your ability to judge social situations again after you have had a chance to get your mind off the task for a short time. This time, you will have a small amount of additional information available to you which is critical for accurate judgment. You are being handed a sheet containing a small but critical amount of additional information concerning the social situation which you have already read about. This new information was purposefully deleted from your initial information. Please read the brief paragraph and follow the instructions.

The additional information (Appendix D) is meager and offers little further information. The Ss are required to rejudge the degree of responsibility for the crime which should be placed on society and the individual, the sentence which should be imposed, and the degree to which the S is certain that this new judgment is accurate.

Following this re-evaluation, the Ss were dismissed and arrangements were made to fully explain the nature of the study to all interested Ss.

CHAPTER IV

RESULTS

In social psychological research, the scales used to test for attitude change must be carefully examined for possible biasing characteristics (Sherif & Sherif, 1956; Sherif, Sherif & Nebergall, 1965). The scales used in this experiment had been used in previous studies by the author and it was found that no portion of the scales attracted greater proportion of assimilation than contrast responses. The scales were examined again in the present experiment to determine if Ss differed on initial judgment and if any portion of the scales attracted differential proportions of assimilation and contrast responses. Particular attention was paid to the Responsibility Scale, since the verbal descriptions accompanying each point on this scale would seem to be more prone to produce points of greater attraction or objection than a simple number scale such as the Sentence scale.

Judgment Scales

The mean initial judgments on the Responsibility Scale for each subgroup are presented in Table 4. Analysis of variance techniques appropriate for equal frequencies

Table 4

Mean Initial Responsibility Scale Judgments for
 Personality, Certainty and Discrepancy Groups
 in Justified and Unjustified Conditions

Discrepancy Groups	Repressor- High Esteem Group		Sensitizer- Low Esteem Group	
	High Certain	Low Certain	High Certain	Low Certain
(Justified Conditions)				
Low	3.6	3.6	4.8	4.4
Moderate	2.6	4.2	2.6	5.5
High	5.2	4.0	3.4	4.6
(Unjustified Conditions)				
Low	3.8	3.6	4.0	4.4
Moderate	5.1	4.0	4.8	4.8
High	3.5	4.0	2.8	2.6

within cells (Walker & Lev, 1953, pp. 381-382) gave the results contained in Table 5. No significant variation was found among the Personality, Discrepancy, Conditions and Certainty Groups. The mean responsibility judgment for all subgroups ranged from 2.3 to 5.5, i.e., individual was judged more responsible for the accidental death than society.

A frequency count was made of the number of Ss assimilating and the number of Ss contrasting to each point on the Responsibility Scale. These frequencies are contained in Table 6. The mean peer judgment of responsibility which was encountered by the Ss and which resulted in assimilation was 5.25;

Table 5

Analysis of Variance for Mean Responsibility Scale
 Judgments for Personality, Certainty and
 Discrepancy Groups in Justified and
 Unjustified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	F
Personality Groups (R:S)	.02	1	1.02	N.S
Certainty Groups (H:L)	.81	1	.81	"
Conditions (J:U)	.06	1	.06	"
Discrepancy Groups (135)	.83	2	.42	"
(R:S) x (H:L)	.15	1	.15	"
(R:S) x (J:U)	.54	1	.54	"
(R:S) x (135)	3.71	2	1.86	"
(H:L) x (J:U)	.63	1	.63	"
(H:L) x (135)	.82	2	.41	"
(J:U) x (135)	4.23	2	2.12	3.03a
(R:S) x (H:L) x (J:U)	.81	1	.81	N.S
(R:S) x (H:L) x (135)	.98	2	.49	"
(R:S) x (J:U) x (135)	.05	2	.03	"
(H:L) x (J:U) x (135)	3.49	2	1.75	"
(R:S) x (J:L) x (J:U) x (135)	.47	2	.24	"
Within Cells	400.43	107	3.74	
Error			.699	b

a. Significant beyond the .10 level of confidence

b. Harmonic Mean = .187

Table 6

Number of Ss Assimilating in Response to Each Point of
Peer Judgment on the Responsibility Scale

Peer Judgments of Responsibility	Number of Subjects Assimilating	Number of Subjects Contrasting
1	1	0
2	2	2
3	1	3
4	11	2
5	4	3
6	8	1
7	5	1
8	2	2
9	2	0
Total	<u>36</u>	<u>14</u>

the mean peer judgment of responsibility encountered by the Ss which resulted in contrast was 4.64. Comparison of these two means yield a t of .100 with 48 df, obviously far from significance. These data concerning the Responsibility Scale indicate that the groups did not differ to a significant extent in their initial judgment of responsibility and that there was no particular area of the Responsibility Scale which tended to elicit more contrast than assimilation nor more assimilation than contrast responses.

The mean choices on the Sentence Scale for each subgroup are presented in Table 7. A frequency count was also made of assimilating and contrasting responses to the various peer judgments of sentence (Table 8). Both assimilation and contrast responses occurred more frequently toward the lower end of this scale such that 85 percent of the assimilation

Table 7
 Mean Initial Sentence Scale Judgments for
 Personality, Certainty and Discrepancy
 Groups in Justified and
 Unjustified Conditions

<u>Discrepancy Groups</u>	<u>Repressor- High Esteem Group</u>		<u>Sensitizer- Low Esteem Group</u>	
	<u>High Certain</u>	<u>Low Certain</u>	<u>High Certainty</u>	<u>Low Certainty</u>
(Justified Conditions)				
Low	5.0	6.6	5.2	7.0
Moderate	8.6	6.6	6.2	3.7
High	5.0	6.8	9.0	5.0
(Unjustified Conditions)				
Low	4.5	7.0	6.0	5.6
Moderate	7.4	5.8	10.6	4.4
High	7.1	9.0	6.7	6.2

Table 3

Number of Ss Assimilating in Response to Each
Point of Peer Judgment on the Sentence Scale

<u>Peer Judgments of Sentence</u>	<u>Number of Subjects Assimilating</u>	<u>Number of Subjects Contrasting</u>
1	13	4
2	4	1
3	2	
4	3	1
5	2	
6		2
7	1	
8		
9	2	1
10		
11	1	1
.		
.		
.		
21		1
Total	<u>28</u>	<u>11</u>

responses and 73 percent of the contrast responses occurred when the Ss encountered peer judgments of from one to six years. The mean sentence judgment by peers toward which the Ss assimilated was 3.04 years, and the mean sentence judgment encountered which results in contrast was 5.73. Comparison of these means yield a t of 1.94 with 37 degrees of freedom which indicates a trend ($p < .10 > .05$) for assimilation to occur in response to lower peer judgments of sentence than do contrast responses. It is obvious, however, that this difference is almost solely attributable to one contrasting S who scored at the extreme on the Sentence Scale (Table 7).

Considering both the Responsibility and Sentence Scale findings, it is apparent that the initial judgment scales had no major effect in eliciting differential assimilation and/or contrast responses.

Attitude Change

Following the procedure used in the preliminary studies, change in judgment of responsibility (R-change) and change in judgment of sentence (S-change) were combined to yield a single measure of attitude change for each S. S-change of one point or one year was weighted one half, and R-change of one point received one full point. (S-change was weighted one half of R-change because the introduced discrepancy on the Sentence Scale was two points for every one point discrepancy on the Responsibility Scale.) Change in judgments

were scored positive when the attitude change was in the direction of the introduced discrepancy (assimilation) and were scored minus when in the direction away from the introduced discrepancy (contrast). A constant of plus five was added to the combined attitude score of each S in order to eliminate minus scores. This method of scoring has given rise to reliable and similar patterns of attitude change in response to the varying amounts of discrepancy on the two attitude change scales (Wall, 1965a; 1965c).

Overall Analysis. The mean attitude change scores for each subgroup of Ss are contained in Table 9. Analysis of

Table 9

Mean Attitude Change Scores Following Disagreement for
Personality Groups, Certainty Groups,
and Discrepancy Groups in Justified
and Unjustified Conditions^a

Discrepancy Groups	Repressor- High Esteem Group		Sensitizer- Low Esteem Group	
	High Certainty	Low Certainty	High Certainty	Low Certainty
(Justified Condition)				
Low	4.90	5.20	5.00	6.61
Moderate	5.90	6.00	6.50	5.42
High	6.10	5.30	5.20	6.10
(Unjustified Condition)				
Low	5.50	4.70	4.90	5.80
Moderate	4.93	5.30	6.80	4.60
High	5.44	4.80	6.00	5.00

^a Constant of plus five added.

variance (Walker & Lev, 1953, pp. 381-382) was used to analyze the attitude change scores of all subgroups in the experimental design, and the results are contained in Table 10. This overall analysis indicated a significant difference in attitude change between the conditions ($p < .05$). The mean attitude change scores were 5.69 and 5.33 for the Ss assigned to the Justified and Unjustified Conditions respectively. Thus, the Justified Conditions resulted in greater assimilation than did Unjustified Conditions.

The overall analysis (Table 10.) also indicated a significant triple interaction ($p < .01$) between Personality, Discrepancy and Certainty Groups. The mean attitude change scores for these three subgroups are contained in Table 11, and Figure 2. Such an interaction reflects a relatively constant pattern of assimilation to the various discrepancies in both conditions by the Personality and Certainty subgroups. Collapsing over Conditions and considering only the Low and Moderate Discrepancy Groups, the interaction depicted in Figure 2 suggests a relatively wide latitude of acceptance (including Moderate Discrepancy) for the High Certain S:LoE Group and the Low Certain R:HiE Group, while a relatively narrow latitude of acceptance (excluding or not assimilating to Moderate Discrepancy) is reflected for the Low Certain S:LoE Group. The lack of differences of attitude change in response to various Discrepancies for the High Certain R:HiE Group results from interactions which will be discussed later.



Table 10

Results of Analysis of Variance on Mean Attitude
Change Scores Following Disagreement for
Personality Groups, Certainty Groups,
and Discrepancy Groups in Justified
and Unjustified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	Corrected Mean Square (Error)	F
Personality Groups (R:S)	1.020	1	1.020		3.878 a
Conditions (J:U)	1.283	1	1.283		4.878 b
Certainty Groups (H:L)	.065	1	.065		
Discrepancy Groups (135)	.620	2	.310		1.179
(R:S) x (J:U)	.183	1	.183		
(R:S) x (H:L)	.011	1	.011		
(R:S) x (135)	.045	2	.023		
(J:U) x (H:L)	.457	1	.457		1.738
(J:U) x (135)	.211	2	.106		
(H:L) x (135)	1.452	2	.726		2.760 a
(R:S) x (J:U) x (H:L)	.716	1	.716		2.722
(R:S) x (J:U) x (135)	.585	2	.293		1.114
(R:S) x (H:L) x (135)	2.887	2	1.444		5.490c
(J:U) x (H:L) x (135)	.096	2	.048		1.494
(R:S)x(J:U)x(H:L)x(135)	.785	2	.393		1.494
Within Cells	150.533	107	1.407		
Error				.263d	

a Significant beyond the .10 level of confidence

b Significant beyond the .05 level of confidence

c Significant beyond the .01 level of confidence

d Harmonic Mean = .187

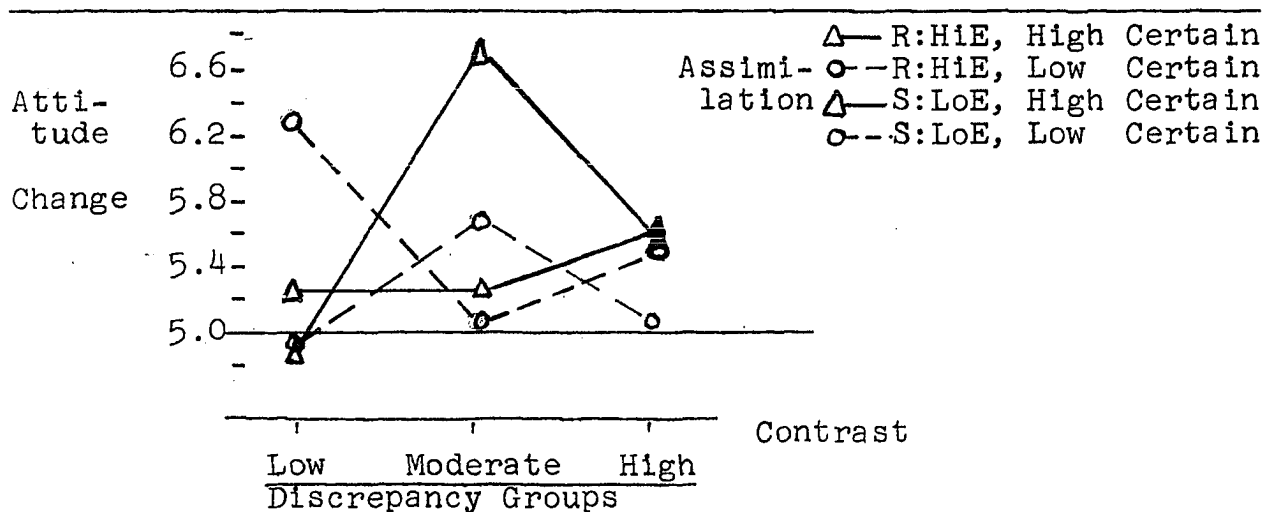
Table 11

Mean Attitude Change Scores Following Disagreement
for Personality Groups, Certainty Groups,
and Discrepancy Groups

Discrepancy Groups	Repressor- High Esteem Groups		Sensitizer- Low Esteem Groups	
	High	Low	High	Low
	Certainty	Certainty	Certainty	Certainty
Low	5.27	4.95	4.95	6.25
Moderate	5.33	5.68	6.65	5.05
High	5.69	5.05	5.64	5.55

Figure 1

Mean Attitude Change Scores Following Disagreement
for Personality Groups, Certainty Groups,
and Discrepancy Groups



The overall analysis is relevant to the specific hypotheses in that if both hypotheses were to be supported, a triple interaction would be found among Personality, Conditions, and Discrepancy. As indicated in Table 10, this interaction was not significant. However, the specific hypotheses as stated in Chapter II were directly tested, since one or the other could be significant, despite the lack of higher order interaction. Accordingly, the attitude changes within each Personality Group were analyzed and are presented in the next two sections.¹

Sensitizer-Low Esteem Group (S:LoE). Hypothesis I predicts (a) a narrow latitude of acceptance for S:LoE Ss (less assimilation to Moderate than Low Discrepancy) in Justified Conditions, and (b) a wide latitude of acceptance for S:LoE Ss (greater assimilation to Moderate than Low Discrepancy) in Unjustified Conditions. Essentially, Hypothesis I predicts an interaction between Low-Moderate Discrepancy and Conditions for the S:LoE Ss. To test this hypothesis, the attitude change scores for the S:LoE Ss who received Low and Moderate Discrepancies (Table 4) were analyzed; the results are contained in Table 12. The interaction between Discrepancy and Conditions which was predicted by Hypothesis I did not approach significance.

However, the analysis of the S:LoE S's attitude change scores did result in a significant interaction ($p < .01$) between Certainty and Discrepancy. The mean attitude change

I. Discussion of High Discrepancy Groups in Appendix E.

scores for S:LoE Certainty Groups which received Low and Moderate Discrepancies are contained in Table 13 and Figure 3. The High Certain S:LoE Ss show maximal assimilation to Moderate Discrepancy, while Low Certain S:LoE Ss show minimal assimilation to Moderate Discrepancy, and this pattern of assimilation to the Low and Moderate Discrepancy, and this pattern of assimilation to the Low and Moderate Discrepancies is not significantly affected by the Conditions. In other words, High Certain S:LoE Ss manifested a relatively wide latitude of acceptance in both conditions, and Low Certain S:LoE Ss showed a relatively narrow latitude of acceptance in both conditions. Thus while Hypothesis I was not supported, highly significant results were found when certainty was included in the analysis.

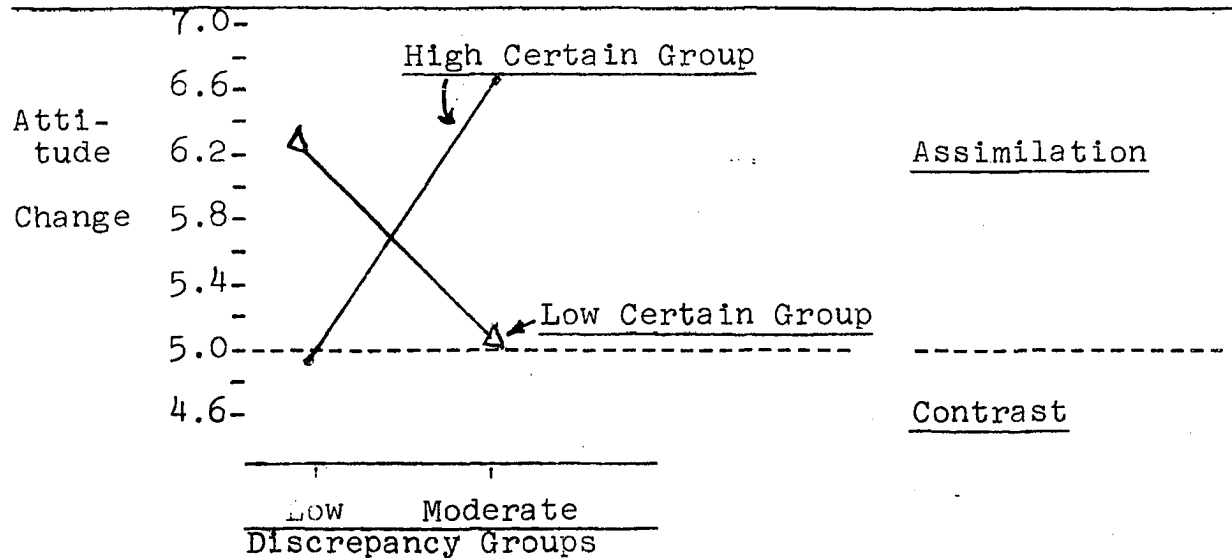
Table 13

Mean Attitude Change Scores Following Disagreement
for High and Low Certain Sensitizer-Low Esteem
Subjects at Low, and Moderate Discrepancy

<u>Discrepancy Groups</u>	<u>High Certain Group</u>	<u>Low Certain Group</u>
Low	4.95	6.25
Moderate	6.65	5.05

Figure 2

Mean Attitude Change Scores Following Disagreement for
High and Low Certain Sensitizer-Low Esteem Subjects
at Low, Moderate, and High Discrepancy



Repressor-High Esteem Group (R:HiE). Hypothesis II predicted (a) a wide latitude of acceptance for R:HiE Ss (greater assimilation to Moderate than Low Discrepancy) in Justified Conditions, and (b) a narrow latitude of acceptance for R:HiE Ss (less assimilation to Moderate than Low Discrepancy) in Unjustified Conditions. Essentially, then, Hypothesis II predicted an interaction between Low-Moderate Discrepancy and Conditions for R:HiE Ss. To test this hypothesis, the attitude change scores for the R:HiE Group in Low and Moderate Discrepancy Groups (Table 4) were examined by analysis of variance; the results are contained in Table 14.

Table 14

Results of Analysis of Variance of Attitude Change Scores
Following Disagreement for Repressor-High Esteem
Subjects in Justified and Unjustified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	F
Conditions (J:U)	.308	1	.308	2.316
Certainty Groups (H:L)	.000	1	.000	NS
High Low Discrepancy (13)	.419	1	.419	3.150 a
(J:U) x (H:L)	.087	1	.087	NS
(J:U) x (13)	.392	1	.392	2.947 a
(H:L) x (13)	.118	1	.118	NS
(H:U) x (H:L) x (13)	.233	1	.233	1.752
Within Cells	28.210	38	.742	
Error			.133	b

a Significant beyond the .10 level of Confidence.

b Harmonic Mean = .179

No significant variation was found. The interaction between Discrepancy and Conditions predicted by Hypothesis II did show a trend ($p < .10$) toward significance. The mean attitude change scores for the Discrepancy Groups of R:HiE Ss in the two Conditions are contained in Table 15. The interaction between Discrepancy and Conditions indicates that the R:HiE Ss, in the Justified Conditions, tended to assimilate more to Moderate than Low Discrepancy and in the Unjustified Conditions assimilated relatively less to Moderate than Low Discrepancy. These findings reflect a wider latitude of acceptance for R:HiE Ss in Justified Conditions than in Unjustified Conditions. While not significant, this trend supports Hypothesis II.

Table 15

Mean Attitude Change Scores Following Disagreement for
 Repressor-High Esteem Subjects in Low and Moderate
 Discrepancy Groups under Justified and
 Unjustified Conditions

<u>Discrepancy Groups</u>	<u>Justified Condition</u>	<u>Unjustified Condition</u>
Low	5.05	5.19
Moderate	5.95	5.08

The analysis (Table 14) also indicates a trend for a main effect of discrepancy ($p < .10$). The mean attitude change scores for the R:HiE Ss at Low and Moderate Discrepancy were 5.13 and 5.50 respectively, which suggest a relatively wide latitude of acceptance for the R:HiE Ss in both Conditions. However, it is apparent for the interaction between Conditions and Discrepancy, discussed above that this trend toward a main effect of Discrepancy is primarily the result of R:HiE Ss in the Justified Condition.

Summary

Initial attitudes were not significantly different for the various subgroups in this experiment. The scales on which attitudes were measured were found to have no ranges which would attract a greater proportion of assimilation than contrast responses and no ranges which would attract a greater proportion of contrast than assimilation responses. Thus, the scales did not significantly contribute to the differential attitude changes among the subgroups of Ss.

The results did show a highly complex interaction between Personality, Discrepancy, Conditions of influence attempts, and Certainty of initial judgment affecting attitude change. Conditions were found to have a significant overall effect such that greater assimilation occurred in Justified than Unjustified Conditions.

Hypothesis I was not supported. Significant findings concerning the Sensitizer-Low Esteem Group were as follows:

- (a) High Certain S:LoE Ss manifested a wide latitude of acceptance in both conditions.
- (b) Low Certain S:LoE Ss manifested a narrow latitude of acceptance in both conditions.

Hypothesis II was supported by a trend ($p < .10$) indicating that the Repressor-High Esteem Group manifested a relatively wider latitude of acceptance in Justified than Unjustified Conditions.

CHAPTER V

DISCUSSION

The results indicated that the factors of Personality, Discrepancy Conditions and initial Certainty of Judgment had a significant effect on attitude change. Within the S:LoE Group, Certainty and Discrepancy significantly interacted such that High Certain S:LoE Ss manifested a relatively wide latitude of acceptance and Low Certain S:LoE Ss showed a relatively narrow latitude of acceptance. Within the R:HiE Group, a trend ($p < .10$) reflected an interaction between Conditions resulted in a wider latitude of acceptance for the R:HiE Group than did Unjustified Conditions. The overall analysis found (a) significantly more assimilation in Justified than Unjustified Conditions, and (b) a significant interaction between Certainty, Personality and Discrepancy. Thus, as expected, the variable of Personality Conditions of subtlety of influence and discrepancy were shown to significantly affect attitude change. The nature of the effects, however, differed in several respects from those predicted by the hypotheses. This divergence appeared to be result of another variable, initial Certainty of Judgment.

In the following sections, the effect of initial Certainty is further explored, and an effort is made to understand how and why Certainty is such a powerful factor in attitude change. Finally, other results regarding valuation of the source of discrepancy and changes in Certainty of Judgment (Unjustified Conditions) are presented.

Initial Certainty

Initial Certainty was found to be a highly significant factor affecting attitude change in both the overall analysis and the analysis of the S:LoE Group. However, in the analysis of the R:HiE Group assigned to Low and Moderate Discrepancy Groups, initial certainty did not emerge as a significant factor in determining attitude change. In order to more sensitively examine the possible effect of Certainty on the attitude changes of the R:HiE Group, the attitude scores of these Ss were analyzed within each Condition and are presented in the next two sections.

Repressor-High Esteem Group: Justified Conditions.

Analysis of variance was first applied to the attitude change scores of the R:HiE Group who received Low and Moderate Discrepancies under Justified Conditions and the results are contained in Table 16. This analysis showed a significant main effect of Discrepancy ($p < .05$). For the R:HiE Ss in Justified Conditions, the mean attitude change scores for the Low and Moderate Discrepancy Groups were 5.40 and 5.64 respectively. Thus, assimilation significantly increased from Low to Moderate

Table 16

Results of Analysis of Variance on Mean Attitude
Change Scores Following Disagreement for
Certainty Groups of Repressor-High
Esteem Subjects within Low and
Moderate Discrepancy Groups in
Justified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	F
High-Low Certainty (H:L)	.040	1	.040	.280
Low-Moderate Discrepancy (13)	.810	1	.810	5.664 a
(H:L) x (13)	.010	1	.010	.070
Within Cells	12.700	17	.747	
Error			.143 b	

a Significant beyond the .05 level of Confidence

b Harmonic Mean = .192

Discrepancy, reflecting a relatively wide latitude of acceptance for the R:HiE Group in Justified Conditions. Initial Certainty had no significant effect in Justified Conditions.

Repressor-High Esteem Group: Unjustified Conditions.

Analysis of variance was applied to the attitude change scores of the R:HiE Groups who received Low and Moderate Discrepancies under Unjustified Conditions, and the results (Table 17) show no significant effect beyond the .05 level of confidence. However, a trend is indicated ($p < .10$) reflecting an interaction between Certainty and Discrepancy. The mean attitude change scores for the High and Low Certain R:HiE Ss who

Table 17

Results of Analysis of Variance on Mean Attitude Change
 Scores Following Disagreement for Certainty Groups
 of Repressor-High Esteem Subjects within Low
 and Moderate Discrepancy Groups in
 Unjustified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	F
Certainty Groups (H:L)	.047	1	.047	NS
Discrepancy Groups (13)	.001	1	.001	NS
(H:L) x (13)	.341	1	.341	2.795 a
Within Cells	15.341	21	.729	
Error			.122 b	

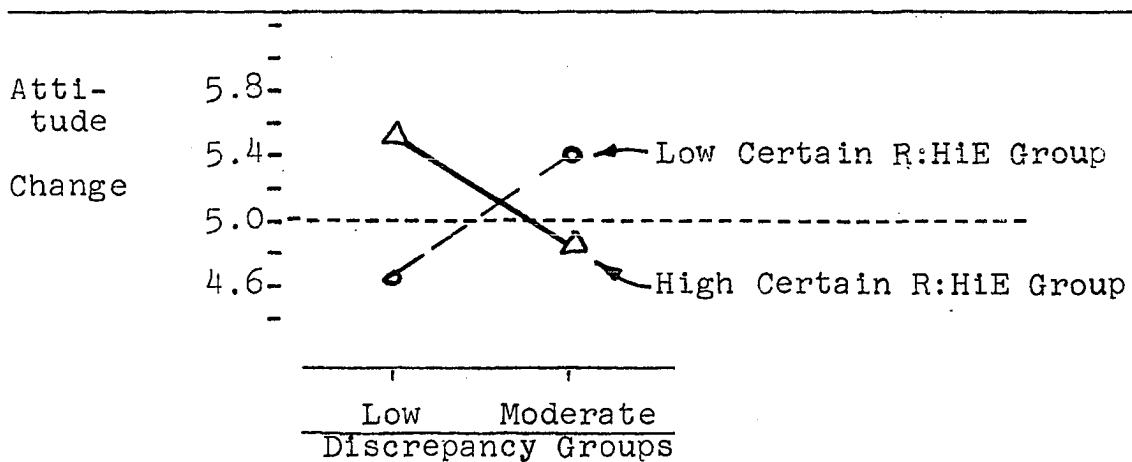
a .10 level of significance

b Harmonic Mean = .167

received Low and Moderate Discrepancies in Unjustified Conditions were included in Figure 3. This trend indicates that High Certain R:HiE Ss tend to assimilate to Low Discrepancy and contrast to Moderate Discrepancy while Low Certain R:HiE Ss tend to do just the opposite, i.e., assimilate to Moderate and Contrast to Low Discrepancy. Thus, this trend reflects a relatively wide latitude of acceptance for Low Certain R:HiE Ss and a narrow latitude of acceptance for the High Certain Ss in Unjustified Conditions.

Figure 3

Mean Attitude Change Scores Following Disagreement
for Certainty Groups of Repressor-High Esteem
Subjects within Low and Moderate Discrepancy
Groups in Unjustified Conditions



Summary. The various analyses of attitude change as a function of Low and Moderate Discrepancy and initial Certainty revealed that the S:LoE Group in both Justified and Unjustified Conditions manifested (a) a wide latitude of acceptance when highly Certain of their initial judgment and (b) a narrow latitude of acceptance when relatively unsure of their initial judgment. The R:HiE Group manifested (a) a wide latitude of acceptance in Justified Conditions with no effect of Certainty, but (b) under Unjustified Conditions, the High Certain R:HiE Group had a narrow latitude of acceptance while the Low Certain Group had a relatively wide latitude of acceptance.

These findings reflect the very important effect of initial Certainty on both Personality Groups in effecting differential reactions to disagreement, i.e., acquiescence vs. resistance. The meaning of initial Certainty, or the attitudinal variable(s) reflected in measurement of initial Certainty and why such variables have a strong differential effect are questions which are considered in the following sections.

Certainty and Involvement

One interpretation of initial Certainty of Judgment is that this reflects the degree to which strongly held attitudes of the Ss were engaged. Since, there are no objective measures of what is "accurate" about social judgments or choice of sentence to be imposed for crimes with many mitigating circumstances, the frame of reference which leads to high Certainty must come from within the S, i.e., his own attitudes toward what are to him relevant factors in the judgment situation. Such reasoning is consistent with what Sherif and Sherif (1956) have offered as one of the basic facts of social psychology:

The more unstructured the stimulus situation, the greater the relative contribution of internal factors in the frame of reference. As stimulus situations become more unstructured, the relative contribution of internal factors (motives, emotions, attitudes, identifications of the person, other products of past learning) to the ensuing psychological structure becomes greater. Accumulating laboratory evidence substantiates this assertion. (p. 82).

Certainty of Judgment when there are no objective standards for accuracy seems to reflect the extent to which an S has relatively well developed inner attitudes concerning the relevant issues, or the extent to which he is personally involved with and committed to his initial judgment.

As Sherif and his associates note, disagreement with an S's strongly held inner attitude is in effect a challenge of the S himself (Sherif & Sherif, 1956; Sherif, Sherif & Nebergall, 1965). Such a challenge would appear to result in the more characteristic defenses of an S. Thus, initial

Certainty may reflect the extent to which an S receives disagreement as a personal challenge and thus, the extent to which an S may feel the need to defend himself from such a challenge. The effect of initial Certainty on defensive behaviors are considered in the following section.

Defenses and Certainty

Sensitizer-Low Esteem Ss and Certainty. Sensitizing defenses and low esteem are described by many authors as resulting in overt behavior which is seen by others as acquiescent and passive (Byrne, 1961; Byrne, 1964). The results of the current study indicate that only the S:LoE Ss who were highly certain of their initial judgments responded to disagreement with such acquiescence, i.e., wide latitude of acceptance. That is, only the S:LoE Ss who were more personally committed to their initial stand responded with the defensive behavior which is characteristically described of them.

When the S:LoE Ss of low initial Certainty encountered disagreement, their behavior was resistant (narrow latitude of acceptance). This seems characteristic of the reported feelings and self descriptions of hostility, stubbornness, and resistiveness (Byrne, 1961; 1964). If these Ss had no well developed attitudes concerning the relevant issues of what they were judging as is implied by their low Certainty of Judgment, they may have experienced the discrepancy encountered as a disagreement which was of no personal importance, and hence characteristic defenses were not engaged.

In brief summary, the current findings can be interpreted as indicating one of the conditions under which characteristic defenses of S:LoE Ss are engaged: high personal involvement with a judgment (High Certainty) prior to encountering discrepancy. Similarly, the current findings suggest conditions under which characteristic defensive behaviors of S:LoE Ss are not engaged: low personal involvement with a judgment (Low Certainty).

Repressor-High Esteem Ss and Certainty. Repressive defenses and high esteem are described by many authors as resulting in behaviors which are perceived by others as resistant and aggressive (Byrne, 1961; Byrne, 1964). The results of the current study indicate that only the R:HiE Ss who were highly certain of their initial judgments and who encountered disagreement under conditions in which interpersonal influence attempts were obvious (Unjustified Conditions) responded to discrepancy with such resistance, i.e., narrow latitude of acceptance. That is, only the R:HiE Ss, who were personally involved with and committed to their initial stand (due to a relatively well developed attitude structure concerning the situation being judged) responded with the defensive behavior which is characteristically described of them. Under conditions in which interpersonal influence attempts were relatively subtle and the Ss could perceive their own attitude change as a relatively autonomous choice based on "new information" (Justified Condition), even the more personally involved R:HiE Ss, i.e.,

High Certain Group, did not respond with their characteristic defensive behaviors.

When the R:LoE Ss of low initial Certainty encountered disagreement, their behavior was more acquiescent (wide latitude of acceptance) which is characteristic of their reported feelings and self descriptions (Byrne, 1961; 1964). That is, their behavior did not reflect an engagement of their characteristic defensive behaviors. If it is possible that these Ss did not have well developed attitudes concerning the issues surrounding the judgment as implied by their low Certainty, they may well have experienced the disagreement encountered as one which was of no personal importance to themselves. As with the S:LoE Group, Low Certainty may reflect a personal detachment, or a lack of personal challenge from the disagreeing judgment such that characteristic defenses were not engaged with the result that behavior was more or less consistent with reported feelings and self descriptions.

Summary. When Certainty was found to have differential effect on reactions to disagreement, the effect was consistent: High Certainty resulted in characteristic defensive behaviors and Low Certainty resulted in behaviors which were consistent with what other authors have reported to be the Ss self descriptions. Defensive behaviors of the R:H1E Ss were found only with the more obvious influence attempts (Unjustified Conditions) while defensive behaviors of the S:LoE Ss were apparent in both Conditions. Such a differential

effect of the Conditions on the two Personality Groups is consistent with the greater sensitization to threat for the S:LoE Ss described by other authors (Byrne, 1961; 1964).

Implications of Current Findings. The implications for personality research and theory are clear: behaviors of Ss reflect their characteristic defenses under certain conditions, and under other conditions their behaviors are more consistent with their self descriptions and what they report as their inner feelings.

A second implication concerns what might be called Sherifian Theory of attitude change (Sherif, Sherif, 1956; Hovland, Harvey & Sherif, 1957; Sherif & Hovland, 1961; Sherif, 1960; Sherif, Sherif & Nebergall, 1965). One of the basic assumptions of "Sherifian Theory" is that the more strongly committed a given S is to an initial position, the more certain he is that he is correct and the more narrow will be his latitude of acceptance. In circumstances which result in high involvement and commitment to an initial attitude of position:

...our formulation predicts resistance to change and re-entrenchment in the person's own position. To the extent that the person is less ego-involved in the issue (it is less important) and that the advocated position is not extremely discrepant, the person will displace the communication closer to his own position and react to it more favorably so that the possibility of attitude change toward communication is greater. (p. x., Sherif, Sherif & Nebergall, 1965).

The highly significant interaction between Certainty and Discrepancy for the S:LoE Group (Table) clearly indicates that the S:LoE Ss who were more certain of their

initial attitude manifested a wider latitude of acceptance than did the S:LoE Ss who were relatively uncertain of their initial judgment. This finding is contrary to that predicted by "Sherifian Theory" and suggests that the personality or defensive characteristics of individuals must be taken into account if accurate predictions of attitude changes are to be made.

A third implication of the current findings is methodological. The differential effect of the two Conditions were such that greater assimilation occurred in Justified than Unjustified Conditions and differential latitudes of acceptance for the High Certain R:HiE Ss occurred in the two Conditions. The only difference in procedures of the two conditions were that (a) in Unjustified Conditions the discrepant peer-judgment was introduced as another "part" of the experiment while in Justified Conditions, the discrepant peer-judgment was introduced as a "separate" and "independent" study, and (b) Ss in Unjustified Conditions were asked to note the Certainty of their initial judgment after the discrepancy was introduced, and this was not done under Justified Conditions. These very small differences in procedure resulted in significant differences in attitude change indicating that in social psychological research even very small differences in procedures may result in differential findings.

Reconsideration of Preliminary Studies. Preliminary studies with High and Low esteem Ss (Wall, 1965a; 1965b) and with Repressors and Sensitizers (Wall, 1965c) did not indicate

an independent influence of initial certainty which was found in the current study. However, these earlier studies did not control for Certainty; many cells contained only High Certain or a greater proportion of Low Certain Ss. In the first preliminary study by the author, the high esteem Ss were of greater Certainty than were the low esteem Ss. In effect, the high esteem Ss in this first study represented High Certain Ss and the low esteem Ss were to a significant extent Low Certain Ss. Similarly, the other preliminary studies failed to control for Certainty of initial judgment so that the Personality dimensions and initial Certainty could not be separated. It seems clear, then, that any study of individual differences in attitude change must consider initial certainty as a primary variable.

Summary: Initial Certainty appears to be a major factor in determining individual differences in attitude change and appears to reflect the extent to which the S is personally involved in his initial judgment, particularly in the current study where no objective standards of accuracy of judgment are available. A lack of personal involvement suggested in Low Certainty of judgment was found to result in behaviors which were relatively consistent with what Ss report as their inner feelings and self descriptions, i.e., hostile-resistive self evaluations for S:LoE Ss and friendly-agreeableness for R:HiE Ss.

When more personally involved in an initial judgment, as suggested by High Certainty, disagreement results in

behaviors which have been described as characteristic defensive behaviors for the S:LoE Ss, i.e., acquiescence. The results also indicate that high personal involvement alone as reflected by High Certainty is not sufficient to engage the characteristic defensive behaviors of the R:HiE Ss. When these R:HiE Ss are presented with relatively subtle influence attempts and change in attitude could be perceived as a relatively autonomous choice based on "new information" (Justified Condition), their behavior was consistent with their reported self evaluations and was not the resistant argumentative reaction described as their characteristic defensive behaviors. Only when influence attempts were obvious, and the R:HiE Ss were personally involved in their initial judgment did these Ss manifest their defensive behaviors of resistance.

Other Findings

One of the measures used in studying the effect of disagreement on attitudes or judgments has been the value attributed to the source of disagreement (Festinger, 1957; Worchel & McCormick, 1963). Festinger (1957) suggests that devaluation of the source of discrepancy is one of the more basic means of reacting to dissonance or disagreement. Similarly, Sherif, Sherif and Nebergall, (1965) imply that valuation of the source of disagreement is one measure of the reactions of individuals to discrepant judgments or attitudes. The valuation of the source of discrepancy by the Ss in the current

study offer a second and relatively independent means of validating earlier interpretations of the effect of personality, Discrepancy, Conditions and Certainty on the reactions of the individuals to disagreement. Accordingly, these valuation scores were analyzed.

Valuation of the Source: Justified Condition. A mean valuation score was computed from the four social value scales (Person Judgment Sheet) on which the source of discrepancy, i.e., the "peer", was evaluated by each S. These mean value scores are contained in Table 18.

Table 18

Mean Valuation of the Source of Disagreement

<u>Discrepancy Groups</u>	<u>Repressor- High Esteem Group</u>		<u>Sensitizer- Low Esteem Group</u>	
	<u>High Certainty</u>	<u>Low Certainty</u>	<u>High Certainty</u>	<u>Low Certainty</u>
(Justified Condition)				
Low	5.00	4.72	5.32	6.14
Moderate	4.62	5.65	5.92	5.07
High	4.02	5.42	5.08	3.52
(Unjustified Condition)				
Low	6.20	6.18	5.68	5.62
Moderate	4.70	4.42	4.62	4.20
High	5.24	4.22	4.43	3.88

Analysis of variance was first applied to the value scores for the Ss in the Justified Condition (Table 19), and a significant interaction ($p < .05$) was found between Personality and Certainty Groups. The mean scores for these groups are reflected in Figure 4 and indicate an interaction such that High and Low Certainty results in reversal of position on value of source for the R:HiE Group and S:LoE Group. Similar findings are reported by Worchel and McCormick (1963). High Certain R:HiE Ss depreciate the source of discrepancy which is consistent with their reported defensive behaviors (Byrne, 1961; 1964). Low Certain R:HiE Ss acquiesce more

Table 19

Results of Analysis of Variance on Mean Valuation Scores
Following Disagreement for Personality Groups,
Certainty Groups and Discrepancy Groups
in Justified Conditions

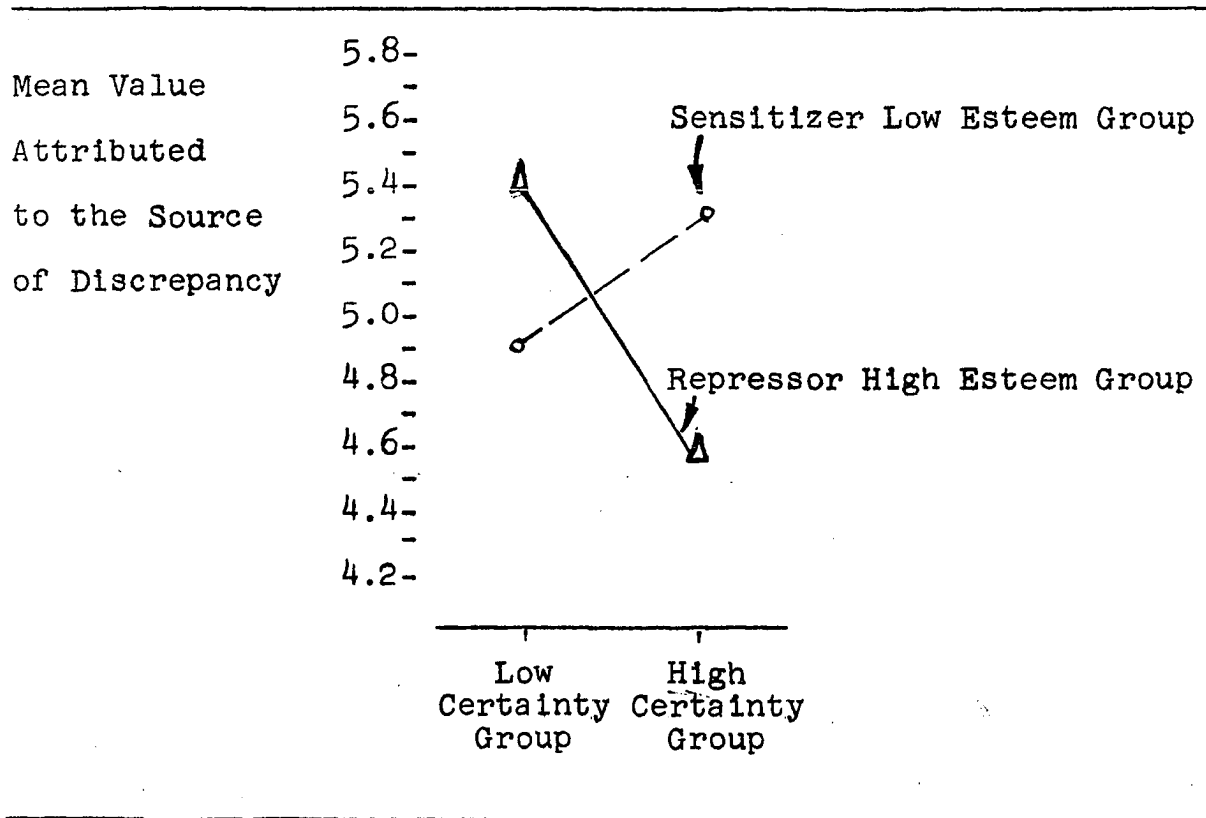
Source	Sum of Squares	Degrees Freedom	Mean Square	F
Personality Groups (R:S)	.219	1	.219	.595
Certainty Groups (H:L)	.026	1	.026	.071
Discrepancy Groups (135)	1.687	2	.844	2.293
(R:S) x (H:L)	1.166	1	1.166	3.168 a
(R:S) x (135)	1.687	2	.844	2.293
(H:L) x (135)	.904	2	.452	1.228
(R:S) x (H:L) x (135)	.524	2	.262	.712
Within Cells	94.944	50	1.899	
Error			.368 b	

a Significant beyond the .05 level of confidence

b Harmonic Mean = .194

Figure 4

Mean Valuation Scores for Personality and Certainty
Groups in Justified Conditions



highly value the source of discrepancy which is more consistent with their reported feelings (Byrne, 1961; 1964).

Similarly, High Certain S:LoE Ss highly value the source of disagreement which is characteristic of their reported defensive behaviors (Byrne, 1961; 1964), and Low Certain S:LoE Ss resist and devalue the source of disagreement which is more characteristic of their reported feelings and self evaluations (Byrne, 1961; 1964).

The interaction between Personality and Certainty on value of the source scores suggests that High Certainty

results in behaviors which are described as the characteristic defensive behaviors for the two Personality Groups and that Low Certainty results in behaviors which are more consistent with the reported feelings and self evaluations of the Ss in the two Personality Groups. Such an effect of initial Certainty on the two Personality Groups was also suggested by the independently measured attitude change scores of these Ss.

Valuation of the Source: Unjustified Conditions.

Analysis of variance was applied to the value scores for the Ss assigned to the Unjustified Condition (Table 20), and a

Table 20

Results of Analysis of Variance on Valuation
Scores for Subjects Assigned to
Unjustified Conditions

Source	Sum of Squares	Degrees Freedom	Mean Square	F
Personality Groups (R:S)	.534	1	.534	.738
Certainty Groups (H:L)	.460	1	.460	.635
Discrepancy Groups (135)	5.659	2	2.830	3.909 a
(R:S) x (H:L)	.007	1	.007	.010
(R:S) x (135)	.111	2	.056	.077
(H:L) x (135)	.280	2	.140	.193
(R:S) x (H:L) x (135)	.053	2	.027	.037
Error	135.388	57	2.375	
Corrected Error			.742 b	

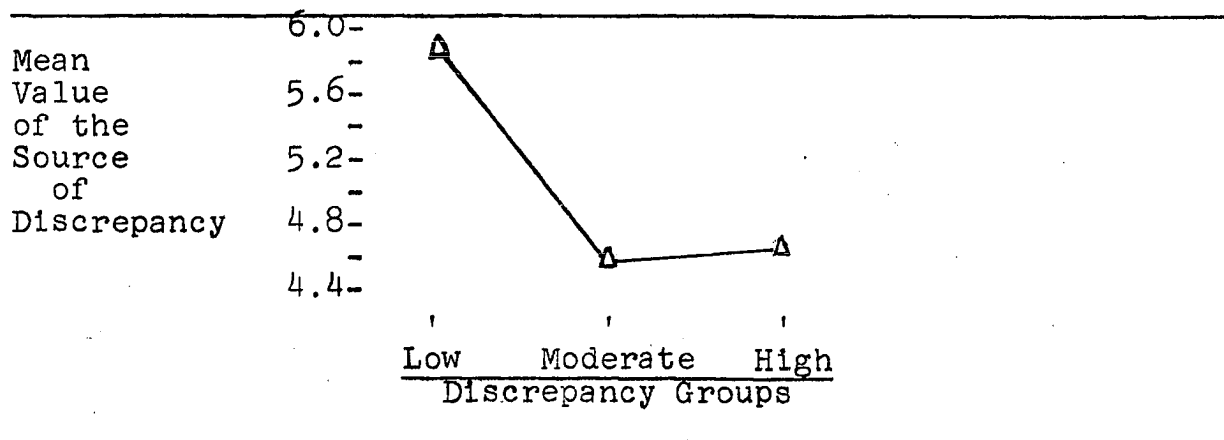
a Significant beyond the .05 level of confidence.

b Harmonic Mean = .305

significant effect of Discrepancy was found. The mean value scores for the Discrepancy Groups are reflected in Figure 5. As indicated in Figure 5, the main effect of Discrepancy is such that value decreased with increasing Discrepancy, and occurs between Low and Moderate Discrepancy. The almost equal value attributed to High and Moderate Discrepancy in the Unjustified Conditions supports the hypothesis that with these procedures, High Discrepancy may not have resulted in a proportionately high threat or psychological discrepancy (Appendix E). There was a striking lack of effect due to Personality or Certainty factors nor was there any interaction effect of these two factors. Under the Unjustified Condition, there was a striking lack of effect of Personality and Certainty as well as a lack of interaction between Personality and Certainty variables.

Figure 5

Mean Valuation of the Source of Disagreement
for Discrepancy Groups Within
Unjustified Conditions



Implications of Findings: Valuation of the Source of Discrepancy. Differential findings in the two Conditions as well as the findings within each Condition indicate that Personality, Certainty, Conditions of influence attempts, and Discrepancy were significant factors affecting the response of these Ss to disagreement.

The different Conditions resulted in different findings in regards to value of the source of discrepancy. As described in Chapter III, the difference in the two procedures up to the point at which the source was evaluated was that in the Justified Condition, discrepant peer judgments were introduced as an experiment which was independent from the one in which the Ss initial judgments were measured; in the Unjustified Condition, the peer judgment was introduced as a part of the study in which the Ss initial judgments were measured. The pronounced effect of this very small difference in the procedures has strong implications for searching considerations of methodology in social psychological experiments.

Under Conditions in which Personality and Certainty were shown to have significant effects on the value attributed to the source of disagreement (Justified Conditions), the effects were consistent with attitude change measures in suggesting that High Certainty results in characteristic defensive behaviors, while Low Certainty results in behaviors which are more consistent with what are reported to be the feelings and self descriptions of the Ss.

Summary and General Implications

The current series of experiments were initiated to clarify the variables involved in predicting attitude change for individuals. Combining research and theory in one area of social psychology and one area of personality, a rather broad hypothesis was suggested concerning the effect of the amount of Discrepancy and the Personality of the S on attitude change. Preliminary studies indicated a third significant variable affecting attitude change: the Conditions under which the influence attempt is made. Thus, the preliminary experiments resulted in modifications of the original hypothesis suggested by a review of the literature. The refined hypotheses concerned the effect of Personality, Discrepancy and Conditions of influence attempts.

The current study tested these hypotheses. The specific predictions were not supported, primarily due to the powerful effect of initial Certainty of Judgment, a factor which had not been controlled in preliminary work. Thus, while the specific hypotheses were not significantly supported, the general purpose of the study was satisfied; the contributions of some of the more important variables affecting attitude change have been clarified and, more importantly, the way in which these variables interact in affecting attitude change was clarified.

The general conclusions from the results are that characteristic defensive behaviors of the two Personality Groups were elicited by challenge of, or disagreement with, judgments

to which Ss were personally and strongly committed. A relatively low level of personal commitment to an initial judgment generally resulted in behavior which was more consistent with an S's personal evaluation and judgment of himself. This general statement, however, must be modified to consider the Conditions of influence. When Conditions were such that the interpersonal influence attempt was indirect and subtle, and when an "excuse" was made available which the Ss could use to justify change in judgment as arising from a relatively autonomous choice, defensive behaviors were not manifested for either High or Low Certain R:HiE Ss but were evident for the High Certain S:LoE Group. It is concluded that such a differential effect of the Conditions on the two Personality Groups resulted from the high sensitization to threat of the S:LoE Ss.

The specific findings have implications for social psychological research and personality study. For example, one general tenet of what might be called Sherifian social psychological theory is that Ss who are highly involved and strongly committed to a position defend themselves from the attack, represented in wide disagreement, by devaluation of the source and contrasting in attitude change. While such a general principle may well apply to the average S, this study found a substantial number of Ss, delineated on a personality variable (S:LoE), who characteristically acquiesce and highly value wide disagreement. Similarly a review of the personality and defense literature reveals no

specification of conditions which elicit non-defensive versus defensive behavior. The current study indicates that Ss of different personality structure are quite capable under certain conditions of behaving in ways which are opposite from their characteristic defensive behaviors but consistent with their self descriptions. Furthermore, the current study indicates some of the important variables effecting defensive vs. non-defensive behaviors: (a) the degree of commitment to an initial judgment or attitude prior to disagreement (b) the conditions under which the influence attempt is made and (c) the degree of discrepancy encountered.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Review of the current literature in the area of personality associated with self-esteem and repression-sensitization suggested that Ss with high esteem and repressive defenses (R:HiE) and Ss with low esteem and sensitizing defenses (S:LoE) should respond differentially to influence attempts. R:HiE Ss characteristically respond to interpersonal threat with aggression and resistance, but describe themselves as friendly, agreeable and acquiescent: S:LoE Ss respond with passivity and acquiescence, but describe themselves as hostile, aggressive and resistive.

A review of the literature in the area of attitude change indicated that the amount of disagreement or discrepancy encountered was a significant variable affecting attitude or judgment change. Work by Sherif and his associates indicated that disagreement affects a judgment or an attitude similar to the way an "anchor" weight affects judgments of other weights in psychophysical experiments. With only slight disagreement or discrepancy, Ss generally change their initial judgment in a direction toward the discrepant judgment, i.e., assimilation. The range of relatively

large discrepancies in contrast is termed the latitude of rejection.

From these two relatively broad areas of research and theory, it was predicted that S:LoE Ss would manifest a relatively wide latitude of acceptance and that R:HiE Ss would manifest a relatively narrow latitude of acceptance.

Preliminary experimentation suggested that under conditions in which influence attempts were relatively obvious to the Ss, the predicted effect occurred and that under conditions in which influence attempts were made fairly subtle, the opposite from the predicted effect occurred. Based on these preliminary studies, it was predicted that under conditions of subtle influence attempts, i.e., Justified Conditions, the R:HiE Ss would manifest a wide latitude of acceptance and under conditions of obvious influence attempts, i.e., Unjustified Conditions, the R:HiE Ss would manifest a narrow latitude of acceptance. Also, it was predicted that in Justified Conditions the S:LoE Group would manifest a narrow latitude of acceptance and under Unjustified Conditions, the S:LoE Group would manifest a wide latitude of acceptance.

The preliminary studies also suggested that initial certainty significantly affected attitude change. However, these earlier experiments failed to control for initial certainty such that the effect of this variable on attitude change could not be differentiated from the effect of Personality, Discrepancy and Condition factors. Thus, in the current experiment,

initial certainty was controlled such that at least 5 high and 5 low certain Ss were represented in each subgroup of Personality, Discrepancy and Condition of influence attempt. A total of 131 Ss were run in the experiment.

Ss were selected from Psychology I students at the University of Oklahoma on the basis of high and low esteem and repressive-sensitizing defenses. One group of Ss were selected for both high esteem and repressive defenses (R:HiE) and another group were selected for both low esteem and sensitizing defenses (S:LoE). Self esteem was measured by self-ideal agreement on the Worchel Self Activity Inventory (Worchel, 1957), and repressive-sensitizing defenses were measured by the Repression-Sensitization Scale (Byrne, 1963).

Instructions designed to involve the Ss in the task were first administered. Then the Ss were presented with a brief social history of a person named "Art". The information indicated a deprived pre-school life for Art, followed by a relatively average school development. Following this brief social history, an incident was described in which Art struck a man who fell and died as a result of hitting his head on the floor. The Ss were asked to indicate their attitude concerning (a) the extent to which Art and Society were responsible for the death, and (b) the prison sentence which should be imposed on Art. The Ss were then directed to write a brief paragraph supporting their judgments, and following this, they were asked to indicate the extent to which they were certain of their initial judgment.

After the initial attitudes were thus measured, the Ss were given a prearranged judgment of what was described to them as a "peer's" judgment of the same situation, and the Ss were asked to evaluate this peer on scales heavily weighted with social value. For Ss assigned to the Justified Condition, the peer judgments were introduced as a completely different experiment from the one in which the initial attitude was measured. For the Ss assigned to the Unjustified Conditions, the peer judgments were introduced as a different part of the same study.

The pre-arranged "peer" judgments contained a standard paragraph in which key words could be changed to support any of the various judgments. The Ss received "peer" judgments which were slightly, moderately or highly discrepant from the S's initial judgment on a basis of the Ss having been assigned to the Low, Moderate or High Discrepancy Group. Assignment to Discrepancy Group was carried out randomly with the exception that within each subgroup of Personality, Discrepancy and Condition a frequency of not less than five Ss of High initial Certainty (80 percent certain or higher) and not less than five Ss of Low initial Certainty (70 percent certain or lower) were included.

Following the S's evaluation of their assigned "peer", those Ss in Unjustified Conditions were asked to re-evaluate the extent to which they were certain of their initial judgment. This procedure was designed to directly confront the S with the influence nature of the study, but without explicitly

saying so. This aspect of the procedure was the key difference between the Unjustified and Justified Conditions.

In the last step in the experimental procedures, the Ss were offered what was described to them as "new and critical" information concerning the social history of Art. They were directed to read this "new and critical information" and indicate their new judgments concerning the proper responsibility and sentence which should be assigned to Art, as well as the certainty of this judgment. This new information in fact contained ambiguous and conflicting statements concerning the social history of Art.

The specific hypotheses concerned only the Low and Moderate Discrepancy Groups, and were based on the findings of preliminary experiments. Specifically, it was predicted by Hypothesis I that the S:LoE Group would manifest a narrow latitude of acceptance in Justified Conditions and a wide latitude of acceptance in Unjustified Conditions, and by Hypothesis II that the R:HiE Group would manifest a wide latitude of acceptance in Justified Conditions and a narrow latitude of acceptance in Unjustified Conditions.

These hypotheses were tested by appropriate analysis of variance on scores representing (a) attitude change and (b) value attributed to source of discrepancy. The overall analysis of variance findings were:

1. Justified Conditions resulted in greater assimilation than Unjustified Conditions.
2. Personality, Discrepancy, and initial Certainty interacted in a complex manner to significantly affect latitude change.

It was concluded that Personality, Discrepancy, Conditions of influence and initial Certainty were significant factors affecting attitude change.

Findings and conclusions resulting from the analysis of the Low and Moderate Discrepancy Groups, with which this experiment was specifically concerned were as follows:

3. Within the S:LoE Group, a significant interaction was found between Certainty and Discrepancy such that (a) the High Certain S:LoE Group assimilated more to Moderate than Low Discrepancy and (b) the Low Certain S:LoE Group assimilated less to Moderate than Low Discrepancy. This effect was present in both conditions.

It was concluded that High Certain S:LoE Ss manifested a wide latitude of acceptance and that Low Certain S:LoE Ss manifested a narrow latitude of acceptance. It was further concluded that S:LoE Ss who are strongly committed to an initial judgment as indicated by High Certainty responded to disagreement with their characteristic defensive behaviors and that those S:LoE Ss who were not committed to their initial judgment (Low Certain) responded to disagreement with behaviors more consistent with their self evaluations and self descriptions. Hypotheses I was not supported.

4. Within the R:HiE Group assigned to both Conditions, a trend toward interaction between Discrepancy and Conditions was found such that greater assimilation to Moderate than Low Discrepancy occurred in Justified than in Unjustified Conditions. This trend supported Hypothesis II.

5. Within the R:HiE Group assigned to the Justified Conditions, a significant effect of Discrepancy was found indicating that this Group assimilated more to Moderate than Low Discrepancy.

It was concluded that the R:HiE Group assigned to the Justified Conditions manifested a wide latitude of acceptance.

6. Within the R:HiE Group assigned to the Unjustified Condition, a trend reflected an interaction between Certainty and Discrepancy such that (a) High Certain R:HiE Ss tended to assimilate less to Moderate than Low Discrepancy and (b) Low Certain R:HiE Ss tended to assimilate more to Moderate than Low Discrepancy.

It was concluded that the High Certain R:HiE Group manifested a narrow latitude of acceptance and the Low Certain R:HiE Group manifested a wide latitude of acceptance.

It was concluded that the more narrow latitude of acceptance for the R:HiE Group in Unjustified Conditions (4 above) was the result of the narrow latitude of acceptance of the High Certain R:HiE Group. Thus, more accurate prediction for R:HiE Ss requires refinement of Hypothesis II to include the variable of initial Certainty.

In conditions of relatively high interpersonal threat in which influence attempts are obvious (Unjustified Conditions) R:HiE Ss and S:LoE Ss who are strongly committed to their initial judgment as indicated by High Certainty manifest their characteristic defensive behaviors; and,

R:HiE Ss and S:LoE Ss who were not committed to their initial judgment (Low Certainty) respond to disagreement with behaviors more consistent with their self evaluations and self descriptions (3 and 6 above).

The condition of relatively low threat (Justified Condition) in which influence attempts were more subtle resulted in defensive behaviors for the High Certain S:LoE Group but not for the R:HiE Group (3 and 5 above). It was concluded that the differential effect of relatively low threat Conditions (Justified Conditions) on the two strongly committed Personality Groups resulted from the greater sensitivity to threat of the S:LoE Group.

Scores representing valuation of the source of discrepancy were analyzed, and the findings were as follows:

7. Within Justified Conditions, a significant interaction between Personality, and Certainty was found such that (a) the High Certain S:LoE Group and the Low Certain R:HiE Group valued the source of discrepancy more than did the Low Certain S:LoE Group and the High Certain R:HiE Group.

It was concluded that under Conditions in which Certainty and Personality interact, High Certain Ss behave in their characteristic defensive manner while Low Certain Ss behave in a way which is more consistent with their self evaluations and self descriptions. This conclusion is consistent with the conclusions based on attitude change.

8. Within Unjustified Conditions, a significant effect of Discrepancy was found in which Moderate and High

Discrepancy resulted in less value of the source than Low Discrepancy.

From the differences in findings of the two Conditions (7 and 8 above), it was concluded that very slight differences in procedures in social psychological experiments lead to widely differed results.

The specific hypotheses were not significantly supported. However, the general purpose of the study was satisfied, the contributions of some of the more important variables affecting attitude change have been clarified and, more importantly, the manner in which these variables interact in affecting attitude change has been specified.

The specific findings have implications for social psychological research and personality study. For example, one general tenet of what might be called Sherifian social psychological theory is that Ss who are highly involved and strongly committed to a position defend themselves from the attack, represented in wide disagreement, by devaluation of the source and contrasting in attitude change. While such a general principle may well apply to the average S, this study found a substantial number of Ss, delineated on a personality variable (S:LoE), who characteristically acquiesce and highly value wide disagreement. Similarly a review of the personality and defense literature reveals no specification of conditions which elicit non-defensive versus defensive behavior. The current study indicates that Ss of different personality structure are quite capable under certain conditions of

behaving in ways which are opposite from their characteristic defensive behaviors but consistent with their self descriptions. Furthermore, the current study indicates some of the important variables effecting defensive vs. non-defensive behaviors: (a) the degree of commitment to an initial judgment or attitude prior to disagreement (b) the conditions under which the influence attempt is made and (c) the degree of discrepancy encountered.

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APPENDIX A. SOCIAL JUDGMENT SHEET

MEASURE OF SOCIAL JUDGMENT ABILITY (college level)

The following is a very brief but highly informative description of an actual person and actual events. After you have read this description, turn to the next page and follow the instructions.

DESCRIPTION:

Art grew up in a lower middle socio-economic level neighborhood which was not far from a slum area in a medium sized city in California. His father was a man who was unable to work because of a recurring pain in his left arm. His father's arm had to be amputated shortly after Art's birth; nevertheless, he never did work again. The mother earned only a small salary at part time jobs such as baby sitting and housework. The mother's small income and the father's welfare payments were only sufficient to maintain the family within its' socio-economic neighborhood. As a result of the father's lack of work and the mother's employment, Art was left alone during a larger portion of his pre-school life. Conflicting reports are made by neighbors concerning Art's reaction to his very restricted pre-school life.

Art's school officials reported that he was never in any serious trouble, that he made average grades, and that he seemed to be a "normal" child in most respects except for his lack of adequate clothing. He is reported by his teachers to have had an average number of friends, and he found enough time for extracurricular activities such as competing in athletics. It was noted by some of his friends that the athletic coach looked a great deal like Art's father.

When Art was graduated from high school, he was seen by a vocational counselor to whom he indicated that he wanted to get a job immediately so that he could help in the support of his parents. His mother had had a stroke and had become unable to work and maintain their home. Art was able to find the work that he indicated he had wanted.

One year after graduation from high school and 15 months after his mother had been paralyzed, Art was talking to some of his high school friends when a stranger bumped into him in a bar. The stranger made some effort to apologize and said that he had been pushed by someone else. Art refused to accept the apology, became enraged, and hit this man. The man fell, hitting his head against the concrete floor. He died shortly afterward. This stranger was described by Art's neighbors as a man who looked like Art's father, and many of his high school friends noted that the stranger looked markedly like the high school athletic coach.

Art is currently serving a sentence in a state penitentiary.

MEASURE OF SOCIAL JUDGMENT ABILITY (college level)

Check a single number below which best represents what you feel Art's sentence should have been.

YEARS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Society has lost a productive member, and an individual has lost his freedom. Check below that single statement which you feel best describes where the responsibility for this situation should be placed.

DEGREE OF RESPONSIBILITY

<u>Art is responsible</u>					<u>Society is responsible</u>			
Entirely	Almost	Most	More	50-50	More	Most	Almost	Entirely
	all						all	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Write a brief paragraph supporting your judgments concerning the sentence and the degree of responsibility.

On the scale below, mark the number which best represents the degree to which you are certain of your judgments.

ABSOLUTELY
CERTAIN

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

ABSOLUTELY
UNCERTAIN

00%

APPENDIX B. STANDARD STATEMENT SUPPORTING DISCREPANT
JUDGMENT.

Paragraph on prearranged social judgment sheet

The following paragraph was written in the blank space allotted for the "peer's" judgment on the Social Judgment Sheet. The paragraph was written in pencil.

(entirely)
 (almost all)
 (most)
 (Society) (more than 1/2)
 (Art) is (one half) responsible and Art

should receive the punishment which is only just. The sentence that I have indicated seems to me to be appropriate. It is only when (Society)/(the individual) is willing to accept the appropriate share of responsibility that people can live together meaningfully. If we change the world around without any justification, then there is very little that we can depend on as being stable and unchanging. (All/almost all/, etc.,) of the responsibility should be considered to be (Society's/ Art's).

APPENDIX C. PERSON JUDGMENT SHEET

PERSON JUDGMENT ABILITY (college level)

Mark below the number that best represents your impressions of the person whose social judgment you have just read. Feel free to use your impressions and feelings to their fullest extent.

	Extremely Low				Average					Extremely High
	1	2	3	4	5	6	7	8	9	
Flexibility										
Psychological Insight	1	2	3	4	5	6	7	8	9	
Ability to get along with others	1	2	3	4	5	6	7	8	9	
Positive regard for others	1	2	3	4	5	6	7	8	9	

APPENDIX D. ADDITIONAL INFORMATION SHEET

ADDITIONAL INFORMATION
(Social Judgment - college level)

Read the following additional information concerning Art, and re-evaluate your judgments.

FURTHER INFORMATION:

Art's neighbors gave conflicting reports concerning Art's reactions to his early restricted environment. One neighbor reports that he was a sick and weak child and "on the shy side", while another neighbor indicates that Art was one of the most robust children in the block and "always getting into things".

Art obtained two jobs after graduation from high school. He delivered milk during the mornings and was a general handy-man in the evenings. He received a better than average salary, however, he worked overtime for this pay.

Check the number below which best represents what you feel Art's sentence should have been.

YEARS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Check below that statement which you feel best describes where the responsibility for this situation should be placed.

DEGREE OF RESPONSIBILITY

Art is responsible				50-50	Society is responsible			
Entirely	Almost	Most	More		More	Most	Almost	Entirely
All					All			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

On the scale below, mark the number which best represents the degree to which you are certain of your judgments.

ABSOLUTELY CERTAIN											ABSOLUTELY UNCERTAIN
100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	00%	

APPENDIX E. HIGH DISCREPANCY GROUPS: DISCUSSION

High Discrepancy Group

The High Discrepancy Group was not involved in the specific hypotheses, but was included in the hopes of clarifying the effect of such extreme discrepancy.

Examination of Figure 1 reveals that in seven of the eight subgroups, High Discrepancy resulted in a change away from the level of attitude change to Moderate Discrepancy and toward that level of attitude change at Low Discrepancy. That is, seven of the eight subgroups showed a peak or dip in attitude change at Moderate Discrepancy. In four of these subgroups (High Certain S:LoE and Low Certain in Justified Conditions and the two R:HiE Groups in Unjustified Conditions), the level of attitude change at High and Low Discrepancies are essentially equal. One of the contributing factors to this nearly equal attitude change at Low and High Discrepancy is similar to what Festinger (1957) has described, as "dissociation".

Festinger (1957) suggests that discrepancies between attitudes or cognitions may be so wide that the S sees the two as unrelated to each other. The nature of the Responsibility Scale may contribute to such a "dissociation effect" in that one half of the scale concerns the extent of an individuals responsibility. Inspection of the scale may suggest that the two halves are mutually exclusive, i.e., "society is almost entirely responsible" vs. "the individual is almost entirely responsible". However, in the preliminary studies by the

author several Ss evidently perceived the Responsibility Scale as being two different scales in that they indicated a choice toward one end of the scale and another choice toward the opposite end. When these Ss were asked to indicate which choice they preferred, a few of them argued strongly that they supported both judgments. The behavior of these few Ss suggest that when wide discrepancies were introduced which depicted choices on opposite sides of the Responsibility Scale; Ss may have tended to perceive these two supposedly discrepant judgments as essentially unrelated. High Discrepancy Groups received a "peer judgment" which was five points discrepant from their initial judgment on a nine point scale. Each S in the High Discrepancy Groups received a widely discrepant judgment indicating a choice toward the opposite end of the scale. Thus, the responses of Ss to High Discrepancy may have been effected by a tendency to dissociate the two attitudes as being essentially unrelated rather than in conflict or "dissonant". Such a tendency would help account for the similarity of responses to Low and High Discrepancy for the majority of the subgroups.

In summary, High Discrepancy may well have interacted with the Responsibility Scale such that the "dissociation effect" described by Festinger (1957) was obtained. Such an effect should be investigated with scales that do not lend themselves to dissociation at the more extreme levels of discrepancy.

APPENDIX F. RAW DATA

Raw Data

UNJUSTIFIED CONDITIONS
REPRESSOR-HIGH ESTEEM GROUPS

Before Disagreement			Following Disagreement				
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain
LOW DISCREPANCY GROUPS (High Certainty Group)							
1	6	90	3.0	90	2	6	90
2	1	80	7.5	80	2	2	80
5	4	80	7.0	80	5	4	80
10	3	80	6.5	90	10	3	90
3	3	80	7.3	90	2	4	80
5	3	90	7.3	80	5	3	80
1	5a	80	7.0	50	1	5	50
1	5a	90	4.0	90	1	6	90
(Low Certainty Group)							
10	5b	60	5.0	100	10	5	60
3	4	50	6.5	60	2	4	60
15	3	70	7.3	80	15	3	80
5	4	40	4.3	70	5	3	80
2	2	40	7.8	40	4	2	40
MODERATE DISCREPANCY GROUPS (High Certainty Groups)							
5	5a	90	4.0	100	5	5	100
3	6	80	4.3	90	2	6	90
5	6	90	3.8	80	5	7	80
5	7	80	4.5	80	5	6	80
15	1	100	7.0	100	15	1	100
10	5a	100	5.8	100	10	5	100
2	6	90	3.5	90	2	6	90
(Low Certainty Group)							
5	6	70	1.8	70	5	6	80
2	5a	70	2.8	70	1	6	80
12	3	60	5.5	60	12	5	60
6	2	40	8.0	60	2	1	60
4	4	50	4.0	50	4	3	60

a Discrepancy above midpoint on Responsibility Scale.

b Discrepancy below midpoint on Responsibility Scale.

UNJUSTIFIED CONDITIONS Continued
REPRESSOR-HIGH ESTEEM GROUPS continued

Before Disagreement			Following Disagreement				
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain
HIGH DISCREPANCY GROUPS (High Certainty Groups)							
10	3	80	5.3	80	10	2	80
2	3	90	5.3	80	1	3	90
15	2	90	7.0	90	10	2	90
2	8	80	2.0	80	2	8	90
8	3	90	7.0	90	5	3	90
10	4	90	3.3	90	10	4	90
8	1	80	6.0	80	8	4	100
2	4	80	6.0	80	2	4	80
(Low Certainty Group)							
20	6	70	3.0	80	10	6	80
15	3	70	4.5	90	12	3	80
3	7	70	5.0	70	3	7	70
3	2	20	4.3	60	3	2	60
4	4	40	4.3	40	4	4	40

UNJUSTIFIED CONDITIONS
SENSITIZER-LOW ESTEEM GROUPS

LOW DISCREPANCY GROUPS (High Certainty Group)							
15	2	90	7.3	90	13	2	90
2	4	90	5.3	90	3	4	100
5	7	80	3.8	100	5	7	90
3	4	80	4.5	100	3	4	100
5	3	80	7.5	80	5	3	80
(Low Certainty Group)							
3	4	50	6.8	50	1	5	50
3	3	60	6.5	80	3	3	80
2	6	20	5.5	50	1	6	40
15	3	70	5.5	70	15	4	60
5	6	60	3.8	70	8	6	80

UNJUSTIFIED CONDITIONS continued
SENSITIZER-LOW ESTEEM GROUPS continued

Before Disagreement				Following Disagreement			
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain
MODERATE DISCREPANCY GROUPS (High Certainty Group)							
5	7	80	3.3	80	5	4	70
20	7	80	4.0	70	20	7	80
8	3	90	5.0	90	8	3	100
10	3	80	5.8	70	6	5	70
10	4	80	5.0	80	8	5	80
(Low Certainty Group)							
10	4	30	5.0	30	10	4	40
5	7	50	4.3	60	5	6	50
3	5 ^b	70	3.0	90	1	6	100
1	6	40	3.5	60	1	7	50
3	2	60	5.0	70	3	2	60
HIGH DISCREPANCY GROUPS (High Certainty Group)							
5	2	80	6.3	80	4	4	70
10	3	80	4.5	70	10	4	80
5	1	80	2.5	80	3	1	100
5	3	80	3.8	80	5	3	90
5	1	80	6.0	90	5	1	90
2	4	90	3.5	90	1	6	90
(Low Certainty Group)							
10	3	40	4.3	40	10	3	40
2	3	60	2.0	60	2	3	60
7	1	60	5.8	50	7	1	50
10	3	20	5.0	20	10	3	20
2	3	70	2.3	60	2	3	80

^b Discrepancy below midpoint on Responsibility Scale.

JUSTIFIED CONDITIONS
REPRESSOR-HIGH ESTEEM GROUPS

Before Disagreement					Following Disagreement		
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain
LOW DISCREPANCY GROUPS (High Certainty Group)							
5	5a	80	5.3	-	5	4	80
10	5b	100	3.3	-	10	4	100
4	5a	90	3.3	-	3	5	80
1	2	100	6.8	-	5	1	100
5	1	100	6.8	-	5	1	100
(Low Certainty Groups)							
4	4	70	4.5	-	4	5	60
2	6	70	2.3	-	2	6	70
21	2	60	7.3	-	21	2	60
2	3	70	3.0	-	1	3	80
4	3	70	6.5	-	5	3	70
MODERATE DISCREPANCY GROUPS (High Certainty Group)							
19	2	100	4.3	-	19	2	100
2	1	90	6.5	-	2	1	90
15	4	90	5.0	-	12	4	90
5	1	100	3.0	-	5	1	100
2	5a	80	4.3	-	2	2	90
(Low Certainty Group)							
5	7	60	5.5	-	5	6	60
6	4	50	4.8	-	6	4	50
5	4	60	6.3	-	3	5	60
5	5b	70	5.8	-	3	5	70
3	3	70	5.0	-	3	4	70
15	2	70	6.5	-	14	3	70
HIGH DISCREPANCY GROUPS (High Certainty Group)							
1	7	90	2.8	-	1	4	80
5	1	90	5.0	-	5	1	90
15	3	80	6.0	-	15	3	80
1	8	100	2.8	-	2	6	100
3	7	90	3.5	-	3	7	90

a Discrepancy above midpoint on Responsibility scale.

b Discrepancy below midpoint on Responsibility scale.

JUSTIFIED CONDITIONS continued
 REPRESSOR-HIGH ESTEEM GROUPS continued

Before Disagreement					Following Disagreement		
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain
HIGH DISCREPANCY GROUPS continued (Low Certainty Group)							
10	2	50	6.5	-	10	4	50
20	4	50	6.3	-	20	4	70
5	6	70	4.0	-	5	6	70
2	4	70	5.0	-	2	5	70
2	4	40	5.3	-	5	4	60

JUSTIFIED CONDITIONS
 SENSITIZER-LOW ESTEEM GROUPS

LOW DISCREPANCY GROUPS
 (High Certainty Group)

5	3	90	6.5	-	5	4	100
1	9	100	4.5	-	1	9	100
5	3	100	5.8	-	5	2	100
10	4	80	4.5	-	10	3	90
5	5b	90	5.5	-	5	6	80

(Low Certainty Group)

1	7	00	5.3	-	1	6	00
18	3	60	4.3	-	10	5	70
3	3	30	5.3	-	2	3	40
10	2	70	8.5	-	10	2	70
3	7	70	7.3	-	3	6	90

MODERATE DISCREPANCY GROUPS
 (High Certainty Group)

10	3	80	6.0	-	10	4	80
10	3	90	5.3	-	10	3	100
3	1	80	5.5	-	2	3	90
1	1	100	7.5	-	1	1	100
7	5b	80	5.3	-	1	6	80

b Discrepancy below midpoint on Responsibility Scale.

JUSTIFIED CONDITIONS continued
SENSITIZER-LOW ESTEEM GROUPS continued

Before Disagreement			Following Disagreement				
Sen- tence Scale	Respon- sibility Scale	Percent Certain	Value of Source	Remeasure of Certainty	Sen- tence Scale	Respon- sibility Scale	Percent Certain

MODERATE DISCREPANCY GROUPS continued
(Low Certainty Group)

5	7	70	4.5	-	5	5	80
5	5a	20	5.3	-	5	5	30
2	2	60	6.8	-	2	2	70
1	8	30	5.5	-	5	5	70
8	4	40	5.5	-	5	5	70
1	7	70	2.8	-	1	7	70

HIGH DISCREPANCY GROUPS
(High Certainty Group)

5	2	80	4.8	-	3	2	80
21	1	100	6.8	-	21	1	100
5	8	80	5.5	--	5	8	80
10	1	100	5.0	-	10	1	100
4	5	90	3.3	-	4	5	100

(Low Certainty Group)

1	3	60	5.5	-	1	3	80
5	3	60	5.5	-	1	3	80
5	6	60	4.3	-	5	5	70
1	4	70	3.3	-	1	4	80
3	7	50	1.0	-	3	7	50

a Discrepancy above midpoint on Responsibility Scale.