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CONFORMITY IN A MODIFIED ASCH-TYPE
SITUATION.

The City University of New York
Ph.D., 1976
Psychology, social

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CONFORMITY IN A MODIFIED ASCH-TYPE SITUATION

BY

ERNEST SHULMAN

A dissertation submitted to the Graduate
Faculty in Psychology in partial fulfill-
ment of the requirements for the degree of
Doctor of Philosophy, The City University
of New York.

1975

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation for the degree of Doctor of Philosophy.

January 12, 1976
date

Bernard Seidenberg
Chairman of Examining Committee

Jan. 12, 1976
date

Florence L. Denmark
Executive Officer

Prof. Bernard Seidenberg

Prof. Glenn Hass

Prof. Alvin Snadowsky

Supervisory Committee

The City University of New York

ACKNOWLEDGEMENTS

I thank the following for their help in bringing the dissertation to a successful conclusion: Prof. Seidenberg, my sponsor; Profs. Hass and Snadowsky, members of the dissertation committee; Prof. Murgatroyd, outside reader; Dr. Witkin, general consultant; and especially Dr. Oltman, outside reader and informal advisor.

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Chapter 1

INTRODUCTION

Formulation of the problem

This experiment involves conformity pressure in a one-trial Asch-type situation followed by a second judgment situation setup to investigate the after-effects when conformity pressure is removed. The research design is based on the essential concept of the Asch situation, viz., a group of stooges giving a distorted judgment, but departs in the direction of Milgram's obedience studies (Milgram, 1963, 1964, 1965) using a build-up of pressure to induce the subject to act contrary to the apparent interests of another person.

The purpose of this design is to investigate the operation of variables relevant to both Asch and Milgram situations through the use of an experimental situation that combines salient features from both of the aforementioned classical approaches. An additional interest concerns the effect of an act of conformity on later behavior in a situation similar to the one where conformity occurred.

The theoretical framework has two major parts. In the first, the notion of a conflict of response tendencies is used in conjunction with the concept of role expectations. This framework applies to the analysis of the subjects' behavior in the Asch-type situation. In the second part two consistency theories are interpreted to generate hypotheses regarding the outcome of the second judgment situation in which conformity pressure is removed.

The first part of the framework rests on the definition of group pressure given by Kiesler (1969). It is "a psychological force operating upon a person to fulfill others' expectations of him, including, especially, those expectations of others relating to the person's 'role' or to behaviors specified or implied by the 'norms' of a group to which he belongs."

The terms "group pressure" and "conformity pressure" will be used interchangeably throughout this dissertation. Also, these terms will always involve, either explicitly or implicitly, the notion of role expectations. This formulation is adopted because of its simplicity and its widespread use in both academic and non-academic literature. Deutsch and Krauss (1965) have pointed to the lack of consensus on theoretical terms in social psychology, but concepts of roles and norms are ubiquitous and, in this case, serve the valuable function of helping provide a coherent structure for analyzing the behavior under investigation.

Concomitantly, the concept of conflict in response tendencies is introduced to clarify and vivify the position of a subject caught in the dilemma of an Asch-type situation. Kelman (1950) and Mausner (1955) have both used this conflict model to discuss results in the autokinetic situation of Sherif. For example, Mausner states that "convergence is a function of the summation of the two opposing tendencies," viz., the response tendency to continue within the previous

judgment range, and the tendency to agree with the other person. Similarly, French (1956) discussed the conflict of forces in a social influence situation. He sees power, based on one or more of the following: attraction, expertise, reward power, coercive power, and legitimate power, in opposition to resistance, based on the individuals' certainty of his own opinion, prior reinforcement, or personality characteristics. However, the specific conflict model that refers to response tendencies is used in this dissertation because it meshes with the behaviorally oriented concept of role expectations.

The second part of the theoretical framework concerns consistency theories and, especially, cognitive dissonance theory. Attitude change has rarely been investigated as part of a conformity experiment, but the need to do so has been emphasized in many review articles. For example, Allen (1965) and Kiesler (1969) point to the importance of empirically distinguishing between compliance with private acceptance and compliance alone. Thus, the second question of this dissertation addresses the outcome of conformity in terms of attitude change towards a stimulus object similar to the one previously judged.

In addition, the effort is made to tie in the above frameworks with the measurement of two personality variables: field dependence-independence and authoritarianism. As will be shown later, many studies have suggested that individual differences in conformity may be linked to these two variables. The following selective review of the experimental literature is intended to clarify the theoretical framework and bring out

the most relevant situation and subject variables that affect conformity.

Conflict of Response Tendencies

The formidable variety of conformity experiments can be absorbed within a simple conceptual scheme. According to Asch (1961):

Independence is not simply the weakening of conformity, nor is conformity the dilution of independence. The respective trends are in opposition to each other, and they have their sources in distinct considerations and motives; the final action of the subject represents, as a rule, the balance he has struck between them. A careful attention to the happenings within the usual experimental situations would reveal that the trend to independence is usually present, often quite strong, and at times stronger than other trends. It is misleading to speak of studies of conformity when one is regularly dealing with the relation of the forces of independence and conformity (p. 153).

From the research literature, the variables of interest can be analyzed as factors that influence preexisting response tendencies (forces of independence) and/or group pressure (forces of conformity). Any strengthening of group pressure increases the probability of conformity, and any strengthening of preexisting response tendencies decreases it. This principle will be clarified through reference to experimental variables organized in the classification used by Kiesler (1969).

Kiesler (1969) presents four variables that can be interpreted in terms of their effects on preexisting response tendencies and four variables that can be interpreted in re-

lation to group pressure. We begin with the first four involving preexisting response tendencies:

1. Prior commitment. Kiesler discusses the Deutsch and Gerard (1955) experiment that contains a comparison of no-commitment, self-commitment, magic pad (partial self-commitment), and public commitment to a prior judgment upon which conformity pressure is then exerted. Greatest conformity occurred when there was no prior commitment to an independent judgment; less conformity occurred in the partial self-commitment condition; and least conformity occurred when either self-commitment or public commitment existed to an independent judgment in advance. Perhaps the best illustration of this point is in the classic Sherif (1936) experiments, where reportedly the prior establishment of individual norms retarded the development of a group norm. Fisher et al., (1956) report an interesting variant of this approach in an experiment where subjects have to judge dot numerosity both before and after a confederate has made his judgment. Although the same quantity of dots is always presented, the confederate gradually raises his estimates over a series of trials. The subjects generally do not conform to the accomplice on any given trial but do follow the escalation of estimates. Thus, the effect of a preexisting response tendency in reducing conformity is demonstrated within a situation where social influence is shown to occur.

2. Difficulty of the task and ambiguity of the stimulus. When the autokinetic effect is used to study conformity

(Sherif, 1936), everyone conforms sooner or later; but, in the Asch situation always a substantial minority never conforms. In Asch (1956), 25% never yielded to pressure. The obvious difference between the stimuli in the two situations is in the ease of making a veridical judgment of them. Experiments using a wide variety of stimuli have consistently shown that the more difficult the judgment, the greater the likelihood of conformity. For example, Kelley and Lamb (1957) showed that group pressure to judge the taste of a substance as sweet was effective only with those subjects who lacked the genetically based ability to taste its bitterness.

3. Size of discrepancy. When the group pressure is towards a judgment markedly at variance with the veridical, conformity is reduced. This was shown in one of the conditions in Asch (1956) and also with the autokinetic effect (Whittaker, 1964). On the other hand, slight divergences between subject and group strengthen the likelihood of conformity, as shown with Luchins' (1955) use of tiny differences in line lengths in an Asch situation.

4. Competence of the subject. The literature emphatically supports the notion that conformity is lessened in specific areas of the subject's competence. For example, Snyder et al., (1960) reported that conformity involving opinions of works of art was significantly reduced for those provided with information beforehand on art and, especially, for those scoring high on aesthetic values on the Allport-Vernon scale. Also, Fagen (1963) reported that ability on a spatial relations task, whether real or based on fraudulent

feedback, reduced conformity for that task.

These factors -- prior commitment, difficulty of the task and ambiguity of the stimulus, size of discrepancy, and the competence of the subject -- seem intuitively to do with preexisting response tendencies, since they all bear on what the subject brings with him into his performance on the critical tests. In opposition, however, to the above tendencies is the tendency to yield to group pressure. The latter is affected by the following variables:

1. Size of the group. The classical result is that group pressure directed at one person becomes more effective as the number of persuaders increases up to three people, and then levels off as more persuaders are added (Asch, 1956). Although some divergent results have been noted (eg., Goldberg, 1954), it is generally accepted since enough confirmation of the original finding has been made, at least for well-structured tasks (Blake and Mouton, 1961).

2. Status and attraction to the group. Personal characteristics of the people exerting pressure and the subjects' attitudes towards those people have importance in several different ways. For example, increasing the prestige of the persuader increases certain measures of conformity (Mausner, 1953), as does making the group more attractive (Festinger et al., 1952). From another angle, several studies have shown that inducing an attitude of cooperation will sometimes increase substantially the amount of conformity responding (Jones et al., 1958; Thibaut and Strickland, 1956; Jackson and Saltzstein, 1958; Deutsch and Gerard 1955).

Finally, on account of their relevance to issues that will be raised later, three studies that suggest the importance of identification with the persuaders should be mentioned. Linde and Patterson (1964) have shown that paraplegic subjects in the Asch situation with able-bodied confederates show less than one-quarter of the conformity responding (8% vs. 33%) that occurs when the confederates are also paraplegic; conversely, the able-bodied also show a significant reduction in conformity when confederates are paraplegic instead of able-bodied. Thrasher (1954) showed that convergence of judgments of partly lit circles was significantly greater between pairs of friends than between pairs of strangers when stimulus ambiguity was high. Also, Lott and Lott (1961) reported that in a comparison of fifteen natural groups, overall conformity to a bogus group consensus was significantly related to expressed mutual liking within each group.

3. Previous success or failure of the group. Group pressure is more effective when on previous trials that group has been generally "correct" while the subject has been generally "incorrect"; conversely, group pressure is less effective if the subjects have been correct and the group has been incorrect (Kidd and Campbell, 1955; Mausner, 1954).

4. Public statement of one's position. If the subject is required to state his judgments aloud or to add his name to a written judgment, conformity is significantly increased (Asch, 1956; Argyle, 1957).

These factors influencing the competing response tendencies will be referred to again in connection with the present research. The basis for preexisting tendencies is within the province of traditional learning research and need not be discussed but a brief discussion of the basis for the tendency to conform is in order.

Psychological Sources of Group Pressure

Deutsch and Gerard (1955) have analyzed group pressure in an Asch-type situation into two factors: normative social influence and informational social influence. This approach towards organizing the variables that effect conformity has been influential (Allen, 1965) because, perhaps, the factors are relevant to any effort at persuasion. In addition, each factor corresponds to a general theoretical approach in social psychology.

Informational influence is based on the individual's need for consensual validation of his experience.

We are all rationally conformant to the extent that we are more certain (our response tendencies are stronger) when our own observations are confirmed by those of others than when contradicted ... In many instances, certainly, so-called conformity behavior is an intelligent part of a rational search for valid knowledge about a fallibly and indirectly known world rather than merely an interest in being like other persons whether or not they are correct. (Campbell, 1961, p. 108).

Festinger (1954) has founded a theory of social comparison on the need for knowledge and the conformity thereby induced. Experimental variables such as size of the group, its previous success or failure, etc., can be direct-

ly related to informational influence.

Normative influence exists to the degree that the subject can be rewarded or punished by actions of group members. This influence exists by reason of the individual's dependence on the approval of others and his prior learning that conformity is more acceptable than deviancy (Walker and Heyns, 1962). Social exchange theory has been applied to the study of conformity (Homans, 1961) with the notion that a person pays a price by conforming and, therefore, does so only if he gains something valuable thereby, viz., social acceptance. Experimental variables such as attractiveness of the group and public commitment have been tied in to normative influence (Allen, 1965).

Although these two forms of influence can be theoretically separated, in practice they operate together and have not been studied clearly in isolation (Schulman, 1967). The value of the dichotomy probably lies in the theoretical understanding it adds to the investigation of variables affecting group pressure. The dichotomy also has the merit of giving perspective to the concept of identification with the group. As shown above, a subject's attitudes towards those exerting conformity pressure is a crucial factor in his behavior, and these attitudes might be subsumed under the concept of identification with the group. Informational influence is a function of the individual's trust in the credibility of group members, and normative influence is a function of concern for the approval of the others. Ultimately, group pressure must rest on the subject's willing-

ness to accept the values and standards of others. Expressed in a slightly different way, "the more members share the same goals obtainable through cooperation, the more likely they are to conform to each other in their behavior." (Bass, 1961, p. 59).

Conflict of Role Expectations

Although the present experiment can be viewed simply as a conflict of response tendencies in the subjects, the argument made will show the value of this conflict conceived in terms of role theory. "Role refers to a set of expectations about how the typical occupant of a given 'position' in a social group is supposed to behave." (Kiesler, 1969, p. 237).

In the Asch situation, the role expectations associated with the group pressure are indirect and implicit. But in the Milgram situation the social pressure is direct and explicit; the subject is instructed to follow an uncongenial course of action. In the present experiment, pressure is also applied directly since the subject is asked to perform a role convenient for others but not for him. When an experiment involves an overt effort to induce a subject to follow a specific course of action, and this persuasion takes place within a context of social obligations implicit in the situation, then from the subject's viewpoint the pressure can be referred to as role expectations.

Similarly, when a subject has a preexisting response tendency that can be directly elicited, and this tendency refers to a specific form of behavior towards another person who occupies a definite position in relation to the subject, then for that subject role expectations exist based on past learning and directed towards that other person. The source of these role expectations cannot be identified explicitly within the situation, but the subject has expectations of himself derived from previous internalizations and reference groups. Since these expectations refer to obligations towards others, the response tendency can reasonably be considered in terms of an internally derived role.

The experiencing of a conflict between differing sets of role expectations, one set potentially being completely internal to the individual, has been called "subjective role conflict" (Wolfe and Snoek, 1962). Another, perhaps less precise term, is "self-role conflict," defined as a discrepancy between a person's norms for his own behavior and the role expectations of others (Jackson, 1966).

In the Milgram situation, as well as in the present experiment, a build-up of pressure is exerted on the subject to follow a course of action such that the immediate role expectations are incompatible with the underlying context of socially defined obligations. Thus, we shall say that the subject is faced with a conflict of role expectations and suffers a "subjective role conflict."

Outline of the Experiment

The basic research idea was to use an Asch-type situation in which people rather than lines were being judged. Accordingly, arrangements were made with Brooklyn College radio station (WBCR) to use their facilities and audition tapes so that the tape recorded voices of applicants for radio announcers could be judged to determine whether the applicants are suitable for employment. Students were recruited to participate in a vaguely described "project" of WBCR and put in a small group where they were outnumbered by the experimenter's accomplices without their knowledge of the manipulation. Each group was informed that it would make the final decision on hiring four applicants to be heard on tape, and each decision must be discussed until it could be made unanimously. The fourth tape provided the setting for the one critical trial. The group was informed that the applicant had a facial deformity; social pressure was then applied to the subjects by means of prearranged arguments to induce them to concur in a decision to reject the applicant because of his deformity, although most listeners considered his voice well suited to radio announcing. A fifth tape was then played for individual judging, with social pressure absent, so that the aftereffects of the critical trial could be assessed with the use of a voice equally good as the one on the fourth tape. Although no deformity was associated with the tape five voice, the possibility of an increased rejection of tape five due to cognitive dissonance reduction was anticipated.

Field dependence and dogmatism in the subjects were measured. Three independent variables were used: level of felt competence, presence or absence of counterpressure, and presence or absence of other naive subjects.

Predicted Effects of Independent Variables

1. Level of felt confidence. All indications from the literature are that feelings of confidence on a specific task lead to a decrease in conformity (Steiner, 1967). For example, Fagen (1963) reported that ability on a spatial relations task, whether real or based on fraudulent feedback, reduced conformity. Similarly, Crutchfield (1955) found a high negative correlation between verbal intelligence and conforming judgments involving logic and opinions as well as perceptions. Coleman et al., (1958) reported that the more difficult items of general information produced more conformity. Brehm (1969), in a similar vein, concludes from his own research that felt competence increases reactance to pressure to follow a nonpreferred course of action. Experimental evidence has already been presented to support this same principle with reference to the relationship between strength of preexisting response tendencies and conformity. Two levels of felt competence were obtained by using (a) groups of freshmen, and (b) groups of upperclassmen who have taken at least two courses in the speech department. This technique seemed to be the most sensible since the task drew basically on speech evaluation, general knowledge, and maturity. Older students who have also taken two or more

speech courses, the prediction was made, would conform significantly less often than younger students with less than two speech courses.

2. Presence or absence of counterpressure. Counterpressure was created for some of the subjects by having an "ombudsman" present in the guise of an observer from CCNY. On the critical trial and at the point where the subject(s) seemed ready to yield, the ombudsman presented logical arguments against the pretext supported by the group. This condition corresponds to the variations in the Asch and Milgram situations where leadership is provided for a nonconforming response. A prediction was made that counterpressure would significantly reduce the level of conformity.

3. Presence or absence of other subjects. The speculation was made that the number of subjects present together is likely to affect conformity mainly in interaction with the other two independent variables. If one might say that each subject in this situation has a certain potential threshold of dissent that is lowered in the counterpressure or high felt competence conditions, then increasing the number of naive subjects might possibly tend to increase the probability that someone's threshold of dissent is exceeded. This situation would especially increase the probability for those conditions where the likelihood of nonconformity for a single subject is greatest. Also, if one naive subject dissents, counterpressure on the other(s) should be increased, while if one naive subject yields, group pressure should be increased. A tentative prediction was therefore

made that increasing the number of naive subjects present at the same time would reduce conformity in most, but not all, conditions depending on the state of the other independent variables. Where counterpressure is absent and felt competence is low, the presence of plural subjects would increase the likelihood of conformity. Otherwise, conformity would be reduced relative to the single-subject condition.

The Subject in the Tape Four Debate.

Two problems of attitude change occur in the present dissertation: the attempted inducement to reject the good tape four and the potential spontaneous rejection of the good tape five.

In Newcomb's (1968) most recent formulation of Heider-Newcomb balance theory, the tape four situation would be classified as "positively imbalanced" because the subject is in disagreement over a person while in the company of people to whom he is expected to respond positively. Newcomb (1968) has summarized the evidence indicating people tend to dislike this state of positive imbalance; and, Taylor (1968) has provided evidence from content analysis of conversations between two people in this state that an initial high level of tension exists that tends to be reduced during the interaction. The two simplest possible modes of restoring balance would be through a change in attitude towards the issue or towards the person(s) exerting pressure. The use of these alternatives in a conformity experiment was demonstrated in the Asch situation when nonyielders showed lowered opinions

of the group and yielders increased attraction to the group, as measured at four points during the experiment (Gerard and Rotter, 1961). The implication for this experiment is that subjects would dissent from the group only at the cost of some alienation. In sum, balance theory could not predict the extent of conformity, but it would predict that the cost of nonconformity would be some alienation from the group, especially as perceived by the nonconformist.

Wheeler (1966) has developed a theory of behavioral contagion that is of interest for this dissertation. He conceives of conformity in basically the same way as this dissertation does, and then contrasts it with behavioral contagion. He defines the latter as the lowering of the avoidance gradient in an approach-avoidance conflict due to the influence of a model who is present. In more concrete terms, a subject who would otherwise be inhibited by group pressure from following his own inclinations is influenced by the example of another person to act in accordance with these inclinations (preexisting response tendencies). In this study an example of Wheeler's behavioral contagion would be nonconformity in the ombudsman condition resulting from the influence of the model to overcome the group pressure.

The conceptual framework will now be pulled together, the fundamental unit being subjective role conflict. On the outcome of this conflict rests the ultimate behavioral decision of each subject. Significant forces are arrayed on

each side of the struggle. The leading factor favoring yielding is the subject's identification with the group and his wish to gain acceptance and avoid alienation. In addition, a perceptual dilemma takes place based on the need for consensual validation of experience. The group, in effect, may impose its own definition of the situation on the subjects. As illustration, Sherif (1961) refers to an experiment in which autokinetic movement estimates are strongly influenced by the estimates of others merely overheard by the subjects.

The counterpressure to the group's influence is the pre-existing response tendencies of the subjects, i.e., their native reactions to the tape based on their previously learned evaluative standards. Also influential in this is the degree to which the subjects individually regard their role in the situation as requiring them to act in an independent rather than in a conforming manner. While the desirability of conforming is learned on the basis of group reward and approval, as has already been described, the assumption can be made that the factors promoting conforming are differentially learned by the subjects. Walker and Heyns (1962, pp. 69-86) have experimentally demonstrated the plausible principle that a tendency to conform may be differentially learned.

In this study, the subject's arguments and requests for justification constitute a reaction to the subjective role conflict. He attempts to bring his preexisting response tendencies in line with the direction of group influence, or

he attempts to bring group influence in line with his own preexisting response tendencies. Where arguments and justifications failed to change group direction, the inference is that subjects allied themselves with their conception of the group's role expectations; their preexisting response tendencies were suppressed and group direction was adopted.

Personality Variables

Each subject was tested on Rokeach's Dogmatism Scale (Rokeach, 1960) and on the standard darkroom Rod and Frame Test (RFT) for field-dependence-independence (Witkin, 1967). Rokeach (1960) has claimed that the Dogmatism Scale is both reliable and valid as a test of authoritarianism, and a recent review (Vacchiano et al., 1969) supports this claim. The RFT is a commonly used instrument for the assessment of cognitive style; its reliability as well as its validity with reference to variables such as age and analytical abilities have been established (Witkin et al., 1962; 1967).

Aside from the general desirability of studying the interaction of situational and personality variables (Hunt, 1965), a special advantage lies in the use of two tests, each specifically oriented to one of the two dilemmas in the conformity situation. The subject first asks himself whose overall judgment is right, his own original one or the one being foisted on him. Witkin (1967) conceptualizes this problem in terms of a person's ability to analyze a situation or perception into its component parts and, thereby, resist the global impact of environmental pressures. This is thought to be a

generalized ability affecting all behavior (Witkin et al., 1962), and the RFT provides the best measure of this ability. Witkin would say that although everyone has the need for consensual validation of social reality, field dependent people with relatively weak anchors in their own subjectively analyzed experiences are relatively more dependent on consensual validation. Thus, they will be more likely to conform even though subjective role conflict may induce doubt. In fact, a significant correlation between field dependence and conformity has been shown (Linton, 1955).

The subject in a conformity experiment next must decide what to do. He usually experiences a subjective role conflict. In the Asch and Migram situations, the two conflicting sets of role expectations are manifested through the presence of visible people, but this is true here only in the ombudsman conditions. According to Rokeach (1960), the highly authoritarian person is at no disadvantage in analyzing a situation but only in synthesizing disparate elements of a situation. He is forced to reject inconsistent information due to his inability to synthesize it. The authoritarian personality habitually resolves subjective role conflict by bringing his own views in line with that of figures seen as powerful. In this situation more highly authoritarian people would be expected to conform more readily to the numerical superiority of group opinion. This conforming is not only because of the implicit power of groups, but, more basically, it is a readily available way of avoiding the effort to synthesize conflicting information.

How do these predictions hold up in the literature? The authoritarian person would be expected to show relatively more "evaluation apprehension" (Rosenberg, 1965) and, therefore, greater sensitivity to the demand characteristics of a psychological experiment. (Fillenbaum (1964) has shown this to be so in a cognitive dissonance experiment where predicted attitude change correlated highly with authoritarianism in the experimental condition; but, importantly in this context, it correlated even more highly in a control condition. The Dogmatism Scale has yielded evidence that the authoritarian person is relatively more responsive than others to power cues (Wilkins and deCharms, 1962), to dogmatic speakers (McGuckin, 1967), to arbitrary solutions in problem solving tasks (Restle, et al., 1964), and to arbitrary and unreasonable demands from a teacher (Wright and Harvey, 1965). Moreover, scores on the Dogmatism Scale are not affected by political ideology (Barker, 1963).

Mann (1959) in his review of personality factors has reported on six studies indicating that authoritarians are less likely to conform to a small group of peers, but they are more likely to conform to either a large group of peers or to perceived superiors. Recent confirmation of this generalization showed evidence of no correlation when pressure came from a single peer (Steiner and Vannoy, 1966) but correlations significant at the .05 level or better when a number of peers applied pressure (Crutchfield, 1955; Steiner and Johnson, 1963; Berkowitz and Walker, 1967). Ehrlich and Lee (1969) concluded from several studies that high-dogmatism subjects

conform more to authority than low-dogmatism subjects where attitude change is the dependent variable. Apparently, authoritarians are relatively more responsive to direction from power figures.

Since the Dogmatism Scale has been related to power factors and the RFT to perceptual factors, theoretically, no relationship should be expected between these two measures. Hellkamp and Marr (1965) have reported a non-significant correlation of .09 between the Dogmatism Scale and the RFT. Also, two studies employing problem-solving tasks have shown that only the field dependent and not the high-dogmatism subjects are at a disadvantage (Ohnmacht, 1966; Kessler and Kronenberger, 1967). But uncertainty develops when one study shows significantly more field independent in subjects neither high nor low on dogmatism (Johnson, 1966), while two others show significant positive relationships between field dependence and authoritarianism. Of these two, one (Rudin and Stagner, 1958) accidentally introduced a subject selection bias using unpaid volunteers when 25% of expected subjects were no-shows. The other (Clark, 1968) compared extreme high authoritarians with extreme low authoritarians at a southern university finding also that a marked difference in intelligence existed favoring the low authoritarians. On balance, the evidence favors the assumption that any intrinsic field dependence to authoritarianism relationships, if it exists, is localized at a few points along the dimensions.

Behavioral Trace and Relevant Predictions

The conformity literature covers a wide variety of situations making feasible predictions for tape four responding by direct application of empirical principles linked to well-established concepts. However, little is known of the aftermath of conformity, i.e., the behavioral trace. Two theoretical models, therefore, will be suggested without a commitment made to either of them.

First, the model of cognitive dissonance theory rests on the assumption that "dissonance aroused in connection with a commitment is likely to be reduced by change in elements other than those involved in the commitment." (Brehm and Cohen 1962, p. 9) Aronson (1969) has expanded this assumption with the statement that cognitive dissonance is based on a conflict between the self-concept and behavior that violates that judgment (rejection), according to Festinger (1957), the easiest way to reduce dissonance, assuming the person considers himself fair and reasonable (self-concept conflicting with behavior), would probably be by "adding new cognitive elements." In other words, the person must cognitively restructure the situation.

In this experiment plausibly cognitive restructuring would occur through a change in the criteria of judgment for acceptance of the applicant. Qualitative evidence for a change in the scale of judgment following conformity comes from those subjects who report they felt influenced in the autokinetic situation. They then usually go on to claim that

the amount of movement remained the same, but their basis of measurement changed (Linton, 1954). Similarly, here the subject might shift his basis for acceptance adding new criteria involving personal qualities to the previously used criteria applied only to the voice.

If the subject considers himself a fair and reasonable person and yet has rejected a quaqualified applicant for technically extraneous reasons, the added new criterion for rejection is likely to be carried over to the next qualified applicant. Of course, this almost presupposes the operation of an unconscious process since many subjects are hardly likely to reject in a deliberate manner the good voice on tape five when the conformity pressure is absent. However, recent evidence suggests that the reduction of cognitive dissonance can occur without awareness (Brock, 1968). In short, the cognitive dissonance model presupposes that dissonance is aroused when tape four is rejected, and the dissonance is reduced via an attitude change, viz., new criteria for acceptance must be met. This attitude change occurs after the tape four decision but before tape five is heard.

A caution must be introduced respecting the problem of relating personality or ability to attitude change. Predictions of the latter involve one or more hypothetical intervening variables whose presence is assumed but never directly measured. This being the case, hypothesized variations in the intervening variable are not distinguishable from uncontrolled factors which easily may confound the independent variables. Miller and Rokeach (1968) have discussed the import-

ance of this difficulty where dogmatism, which can have many effects on specific attitudes, is assumed to be correlated with low tolerance for ambiguity and thus with a greater need to reduce cognitive dissonance. Data have been gathered which support this assumption (Foulkes and Foulkes, 1965; Powell, 1962; Kleck and Wheaton, 1967; Hunt and Miller, 1968) but the effects of ego-involvement, to mention just one possible source of contamination, have been overlooked. "If two elements are dissonant with each other, the magnitude of the dissonance will be a function of the importance of the elements." (Festinger, 1957, p. 16.)

This point is clarified in Brehm and Cohen's (1962) generalization that the magnitude of dissonance arousal is greater as the person's ability or self-esteem is less likely to lead him to perform the discrepant act (p. 305). Therefore, the specific attitude to which an act is counterattitudinal is quite important, especially when personality variables are involved. In the case of this research, the high-dogmatic subject with his relatively strong focus on power factors might have little trouble in reconciling his rejection of tape four with his good opinion of it. He might consider his original opinion to be of minor importance in the light of the expectations of important others and pay less attention to the apparent consequences of his action, thereby experiencing little discomfort. He would exhibit "behavioral conformity" which has been found specifically in conjunction with a reward-punishment emphasis in school

supervision (Warren, 1968). High external justification would be observed for his rejection of the tape four applicant and, thus, little or no dissonance. From this analysis, the prediction of high dogmatics accepting tape five would be made.

There is another model. Brock (1969) interprets the transgression-compliance effect on the basis of continuing a hypothetical involvement with a person or someone in the same role. The consistency motive is said to be engaged when the individual compares the amount of past treatment of another person with the amount of present or prospective treatment. A person, therefore, tries to be consistent in the level of his involvement with another or with someone in the same role as that other. For the present experiment this means that the subject should seek the same level of involvement on tape five as on tape four. The "direction of subsequent effect, whether beneficial or harmful, would be determined solely by the individual's orientation toward the other person. Unless the other person has evoked hostility, the individual will want not to affect his fate in a hostile fashion." In other words, for any given level of involvement, either a positive or a negative attitude could develop towards the other depending only on what attitude that person evokes. In the present experiment, subjects will be favorably disposed towards tape five, according to this model, provided they like what they hear. This model, therefore, predicts that most subjects will accept tape five at approximately the same probability as the control group.

Summary of Main Hypotheses and Predictions

1. High felt competence produces less conformity than low felt competence.
2. Conformity will be less in the ombudsman condition than in the absence of the ombudsman.
3. Since high-dogmatics are more sensitive to power considerations and field dependent people are more subject to pressure in social perception, the probability of conformity on tape four would be, in descending order:
 - (a) high-dogmatics and field dependent,
 - (b) high-dogmatics and field independent; or
low-dogmatics and field dependent,
 - (c) low-dogmatics and field independent.
4. Acceptance of tape five (it is a private decision) at the level of the control group by high-dogmatic yielders is predicted from the hypothesis that in a conformity situation these people show only behavioral conformity.
5. Brock's (1969) hypothesis predicts acceptance by all subjects of tape five at the level of the control group.
6. Cognitive dissonance theory predicts that conformers on tape four will have a significantly higher rate of rejecting tape five than the control group.

Chapter 2

METHODOLOGY

Basic Design

To recapitulate, the basic research idea was to use an Asch-type situation in which people rather than lines were being judged. Students were recruited to participate in a vaguely described "project" of Brooklyn College radio station and put in a small group where, without their knowledge of the manipulation, they were outnumbered by the experimenter's accomplices. The accomplice-to-subject ratio was either 3:1 or 4:2 except for four groups of three or four subjects. The latter were accidents of scheduling, and the data from them was not analyzed.

With the experimenter acting as group chairman, each group was informed that it would make the final decision on hiring four applicants to be heard on tape, and each decision must be discussed until it could be made unanimously. The critical trial occurred with the fourth tape when social pressure was applied to the subjects by means of prearranged arguments to induce them to reject a well-qualified applicant on account of a facial deformity. A fifth tape was then played for individual judging, with social pressure absent, so that the aftereffects of the critical trial could be assessed. Field dependence and dogmatism in the subjects were measured at the end. The three independent variables were (a) number of subjects present in a session (b) presence or absence of an ombudsman (spokesman for the facially deformed applicant, and (c) level of felt competence (as measured by

number of speech courses taken).

The experiment was run in two phases separated by a three-month interval. Phase one contained 75 subjects non-randomly distributed through 52 experimental sessions. See Table 1 for the distribution by condition. As can be seen, subjects were fewer in the ombudsman condition than in the non-ombudsman condition; subjects who had taken at least two speech courses were fewer than the number who had taken less than two; and sessions with more than one subject were fewer than with one subject only.

Table 1

DISTRIBUTION OF EXPERIMENTAL SESSIONS

Phase 1

Number of Subjects Per Session

		<u>1</u>	<u>2</u>	<u>3 or 4</u>	
<u>No</u> <u>Ombudsman</u>	0-1 Speech Courses	15	6	3	24
	2+ Speech Courses	6	5	1	12
		21	11	4	36
<u>Ombudsman</u>	0-1 Speech Courses	9	3	0	12
	2+ Speech Courses	3	1	0	4
		12	4	0	16
<u>Total</u>	0-1 Speech Courses	24	9	3	36
	2+ Speech Courses	9	6	1	16
		33	15	4	52

Table 1 (cont'd.)

Phase 2

		<u>Number of Subjects Per session</u>			
		<u>1</u>	<u>2</u>	<u>3 or 4</u>	
<u>Total</u>	0-1 Speech Courses	0	0	17	17
	2+ Speech Courses	0	0	7	7
		0	0	24	24

Uneven cell size in Table 1 occurred because of scheduling problems with subjects and accomplices. Since non-parametric statistics were the only ones to be used, it was considered unnecessary to equalize cell sizes.

Phase 2 was run three months after Phase 1. Its purpose was to evaluate the influence of six accomplices on three subjects and to improve the control data. The four sessions during Phase 1 in which there were three or four subjects together were actually accidents of scheduling. The number of accomplices present at these times was equal to or, at most, one more than the number of subjects present. Therefore, the accomplice-to-subject ratio was inadequate for a test of group pressure, and the decision was made to use a larger ratio while assessing the condition of three subjects together in Phase 2.

Most of the Phase 2 subjects, i.e., 17 of 24, had taken less than two speech course. Also, the ombudsman condition was not used in Phase 2. In practice, sometimes four subjects and up to eight accomplices were present during these last eight sessions.

Subjects

A total of 105 male Brooklyn College students comprised the sample studied in the laboratory. Of these, 99 were experimental subjects and six were individual controls. In addition, data from 16 men in a college course was gathered on two occasions for control group purposes. They will be referred to hereafter as the "class control group," as distinct from the six individual control subjects studied separately in the laboratory. Phase 1 was conducted during July 1970 in the summer session and was comprised of the class control group and also of 75 subjects distributed through 52 experimental sessions. Phase 2 was conducted during the political recess of late October 1970 and comprised six control sessions each containing one subject, and 24 experimental subjects distributed through eight sessions. Phase 2 was run to increase the control data and provide information on what would happen in larger groups.

Except for the class control group, all subjects were recruited by telephone calls without preliminary notice or screening. All names and phone numbers were obtained without the knowledge of the potential subjects from three sources: instructors in introductory psychology, teachers of advanced graduate and undergraduate courses in the speech and theater department, and the lists of registered undergraduates majoring in political science. Since more than half of the potential subjects were taking introductory psychology, the class control group was a section of introductory psychology

left untouched by subject recruitment. The method and sources of recruitment were the most practical that were available considering the need for deception of those being recruited.

No effort was made to screen out potential subjects from the telephone lists with the exception of the total exclusion of women, who were assumed to constitute a separate population with respect to the study of conformity.

The telephone recruitment call was essentially the same for everyone and proceeded as follows. The experimenter introduced himself as being associated with the CUNY Graduate Center working on a project at Brooklyn College Radio Station WBCR. The student was told that his participation was needed in helping to select radio announcers for the coming year and that small groups were being formed to listen to audition tapes and judge them. The time required and a payment of \$3.00 were mentioned. If the subject agreed, he was scheduled for a session. Some subjects asked how their names had been obtained, and the answer always was, "from the Computer Center at registration." No other suspiciousness was manifested except towards the end of Phase 1 when a few students seemed to have heard of the experiment. These latter people were not asked to participate.

No precise records were kept of telephone turndowns, but in Phase 1 they ran around 50% early in summer school and somewhat higher towards the end as exams approached. The reason for rejection was generally the same -- that the stud-

ent had an outside job and no time at all to spare. Unless the student spelled out how busy his schedule was, he would almost always agree to participate. The majority of those who said they were too busy added that they would have liked to take part. A small number of people rejected the recruitment appeal as being of little interest.

In Phase 2 the situation was similar, except that outside work was less common and travel out of town was the main reason given for turndowns. Obviously, a subject selection bias exists in favor of those without summer jobs and also those with a special interest in radio as judged from the remarks of many of the subjects. Subject selection bias is a significant issue since the recruitment appeal is an influence attempt that preselects subjects who will later be exposed to an experimental influence attempt. The matter, therefore, will be raised again in the discussion section.

Task

The meeting place was the offices of WBCR. At the appointed time, the subjects, accomplices, and experimenter would gather and be introduced to each other. The accomplices acted at all times as if they were subjects and, therefore, completely new to the situation. The experimenter then invited everyone to go upstairs to the "tape audition room" where the "project" was being held. Once there, everyone took a seat around a large table. To one side was a desk on which stood a tape recorder and tapes; on the walls were

posters of rock music personalities; and, on the round table was a stack of rating sheets.

The procedure was exactly the same regardless of group size or composition. But in the ombudsman condition, one accomplice would be introduced at the beginning as a visitor from the CCNY radio station who was there to observe but not take part. In the first five sessions, some procedures were varied in comparison with the remainder of the experiment. The main difference was that the chairman at first was the president of WBCR. However, the experimental outcome of the early sessions was quite similar to the later ones, and so these sessions were included in the results. When the WBCR president dropped out due to lack of time, the experimenter decided to take his place as chairman since he was best suited to provide a standardized, consistent format for all the sessions.

After everyone was seated, the experimenter, whose role was described as organizer of the project and chairman of the of the group, explained the project to the participants. The explanation was essentially the same in all sessions but could not be completely standardized because of the necessity for maintaining spontaneity and for avoiding the appearance of memorization arousing suspicions that an experiment was in progress.

The experimenter spoke as follows:

The purpose of the group is to get student participation in selecting announcers for WBCR for the coming year. We want to have a cross-section of different points of view on campus so as to get a more representative decision on who the announcers should be since it is the students who listen to them. There are over 50 tapes that have been made and tentatively accepted as suitable by WBCR, and the groups that meet to hear these tapes will try to select the best. There are only about 15 or 20 positions open on the announcing staff, so most of the tapes must be weeded out. We have five tapes to judge here today. First, we will listen to each tape for two or three minutes, and then discuss it. These are the rating forms we will use for each tape. (Rating forms are shown.) At the top is the decision on overall evaluation, suitable or unsuitable. This is a decision that we must make as a group, unanimously. It's felt that a unanimous decision is the fairest way, since we each have our own ideas; and if we can all agree, that's the best thing. The rest of the categories, voice quality, diction, etc., we will all rate on our own after we make the overall evaluation as a group. The decision we make, suitable or unsuitable, will almost certainly be final. That is, if we decide to accept any tape, that person will become an announcer, and if we reject a tape, that person is out. Is that clear? OK, these five tapes for today have been made in different ways. Some people audition for jobs as newscasters and others as disc jockdys. Today I think we'll hear both kinds of tapes. Everyone has his choice of how to audition. Everyone can use the radio station facilities if he wants, but some people take material home with them and make their audition tapes at home. That's their choice. It would be best if we concentrate on the merits of the voice itself and not pay too much attention to the way the tape was made. One last thing -- everyone who came to do an audition had to submit to an interview by a public relations person at WBCR. Therefore, we have a little background information on each person typed up here (a folder containing several typed pages is shown to the group), just so we know a little about who we are going to listen to. Would you read this out loud? (talking to a participant and taking out a sheet). The number at the top is the voice identification.

Before each of the five audition tapes was played, an information sheet giving the alleged background of the applicant was taken from a folder and handed to one or another of the participants to read aloud while the experimenter prepared the equipment. The identification number at the top of each information sheet corresponded to a number written on a tape and was placed by the participants at the top of every rating sheet they used. These numbers skipped around in range from 14 to 45.

No criteria for judging the goodness of the tapes were suggested in any way to the subjects. If subjects asked for guidelines, they were told to use their own judgment in establishing and applying criteria for judging the tapes. This procedure was designed to avoid setting obstacles to later attempts at persuading subjects to change their minds. In post-experimental interviews the basis for judging tape four was verbally assessed.

Accomplices

The accomplices were working for \$1.60 per session, but, nonetheless, had a large turnover. Most of them were recruited from the ranks of ex-subjects. Practically all were Brooklyn College undergraduates. The exceptions were two or three who had graduated from Brooklyn College within the previous year and some psychology graduate students who filled in during an emergency. They all acted their parts with reasonable skill.

To have such a turnover in accomplices was disadvantageous because it introduced an added degree of variability to the sessions. However, the costs of maintaining a full time staff of accomplices, always available for duty, would have been prohibitive. The disadvantage of the added variability was minimized by assigning major roles in the sessions to those assistants who participated most frequently and most enthusiastically. In fact, about two-thirds of all accomplice roles across sessions were filled by a total of seven assistants. Instructions given to accomplices were quite simple: act like a subject, be natural, do as you wish up to the critical tape, and argue in support of the experimenter on the critical tape. All accomplices followed these instructions. The roles to be performed were basically simple. With advance guidance from the experimenter plus experience built up from previous sessions, the more active accomplices were able to provide a standardized format within the sessions. Thus, accomplice variability occurred only in the form of the effects of different personalities interacting with different subjects but not with respect to procedural variability.

Warm-up Tapes

The first three tapes were chosen to establish credibility, fix the rules of procedure in the subjects' minds, and create a pleasant group atmosphere. Little discussion ensued on any of these tapes since almost all participants agreed quickly that the first two tapes were very unsuitable

and the third was very good. However, occasionally some argument started as to whether the applicant's style was a handicap and as to whether it should be judged on a highly subjective basis or on what the students as a whole might want to hear. To avoid biasing the later debate, the chairman and accomplices took no definite position on this issue. The experimenter in the role of chairman was careful to ascertain everyone's opinion on each tape and to conclude each discussion only after the entire group clearly saw no overt disagreement remained. Before proceeding to the next tape, the experimenter made sure that everyone had marked his rating sheet and placed it in the pile of filled in sheets. The point was established that everyone had to make the same overall evaluation on the sheet.

Critical Tape

The information sheet for the fourth tape contained the statement: "He has a facial deformity which he says resulted from an accident in his early teens." On the other information sheet some complimentary remark was made about the applicant's appearance.

The voice was fast, breezy, clear, confident, and very well modulated; the sound was of a low-keyed disc jockey. Just before the tape ended, the experimenter turned on a small hidden tape recorder by an inconspicuous movement of the hand on a pedal concealed behind the visible tape recorder. Then to start the discussion, the experimenter casually obtained the subjects' opinions on the merits of the voice by asking

in general how they liked it. Noting the responses of the subjects, he directly questioned any subject who did not give a clear response. This was necessary because a few subjects rejected the tape on its merits; therefore, they were excluded from the subsequent analysis since no group pressure was needed to induce them to reject tape four. After the opinions were given, the experimenter with obvious hesitation and reluctance expressed the view that a person with a facial deformity might be unsuitable for an announcer's position because he probably would not fit in at WBCR among his colleagues due to "making them feel uncomfortable." No subject ever agreed with this point and, therefore, an accomplice would ask if an announcer would have outside duties. The experimenter said yes, and either he or a WBCR accomplice who might be present then went into detail. As he spoke on the necessity for a good public relations image for the station and the importance of an announcer's outside appearances, the accomplices present would gradually agree. In some cases the subjects pondered the argument, and in other cases they argued back. Frequently an accomplice suggested that a serious disservice would be perpetrated on the applicant if he was encouraged in a radio career that could only lead to a blind alley. Heavy emphasis was always placed on the importance of personal appearance in the entertainment media. The burden of the argument to reject was carried by the experimenter and all the assertive accomplices. If the subject was especially hard to convince, the experimenter pleaded that WBCR would be burdened unfairly with someone who would create problems when

so many other good applicants could be hired.

These persuasive devices were prepared before the start of the experiment, and since they were effective and also maintained the credibility of the deception, they were used in basically the same way throughout the course of the experiment.

For subjects who were unwilling to budge after all arguments were exhausted, a compromise was suggested. At first the experimenter pointed out that if all subjects marked him unsuitable, they could explain the reason in the place for comments. If this mild concession was inadequate, an offer was made to combine rejection with an invitation to come in for an evaluation of his appearance. The subject sometimes insisted on combining rejection with a review of his case by top officers of the station. Whenever rejection was combined with such a demand for special reevaluation, the results was labelled "compromise." If all attempts at compromise were exhausted, the experimenter said the tape would be passed on to another group and the overall evaluation of this tape would be omitted.

Subjects sometimes raised practical questions. For example, some asked if anyone present knew what the applicant looked like. The answer was always given that nobody present had any idea. Then the rejoinder was a protest against rejecting the person on the grounds of appearance without seeing him. The answer was always given that the information sheet made a point of remarking on his facial deformity and quoting him on when it had occurred, and, therefore, it must be significant.

Some subjects asked why every announcer had to make outside appearances. The answer was always given that to prevent him from making the normal personal appearances would be a terrible insult to someone with a facial deformity.

The majority of subjects questioned the need for a unanimous judgment or for any judgment at all in view of the controversy. The answer given was always that they were there to do the job as prescribed. They are to reach a unanimous decision as instructed and not to shirk responsibility.

Occasionally a subject or an accomplice would raise the question as to whether unanimous agreement was actually compulsory. The experimenter always said no, and told the subjects that they had to decide for themselves whether or not to make him unsuitable. This answer was necessary to maintain the subject's responsibility for his own decision to conform. Then, of course, the pressure was reapplied with further argumentation which was usually successful.

Before and during the first few experimental sessions, the form of response to these practical questions raised by subjects -- the nature of the facial deformity, the announcer's responsibility to make outside appearances, the absolute nature of the rule of unanimity -- were devised by the experimenter and standardized for use by the accomplices.

In the ombudsman condition, the ombudsman stepped in only at the point when subjects showed verbal and facial signs of lowered resistance. If he had stepped in earlier, his role in discouraging conformity would have been equivocal since at that time he had no way of distinguishing those who did not require his support to resist the pressure from

those who did require his support. The ombudsman waited for a signal from the experimenter before speaking. As he began, he apologized for entering the argument as an outsider but said he felt strongly on the subject and wished to express himself. He then made three basic points - (a) to reject a person for his appearance was unfair without knowing what his actual appearance was, (b) even if his appearance made outside work impossible, he could still be suitable since not all announcers have to work outside, and (c) the authority of the group did not extend far enough to reject an applicant for reasons unconnected with his voice. The experimenter and the accomplices attempted to rebut these arguments, and the ombudsman said little or nothing in counterrebuttal. This was the sum total of the ombudsman's role.

Debate ended when agreement was reached to mark the applicant unsuitable and sometimes to add specific comments, requests, or demands. Sometimes an attempt to force an agreement was necessary after a long debate. This was accomplished by putting on the subjects, as the apparent obstructionists, the onus of responsibility to come up with a practical solution to the group controversy. If this final attempt to induce conformity did not succeed, the experimenter ended the debate by announcing that a unanimous decision was impossible. He then said the tape would be passed on to another group for a decision, and the participants should fill out the rating sheets on tape four but omit the judgment to accept or reject the applicant. When this occurred, all dissenting subjects present were classified as non-conformers.

Before the next tape was played, the hidden tape recorder was turned off.

Post-critical Tape

Any accomplice who had to leave was allowed to go after the critical tape was dealt with. In fact, some accomplices always stayed as did all the subjects. When an accomplice left, he offered as his excuse some previous appointment, and a phony arrangement was made to have him return to hear the last tape another time. Although this procedure had the disadvantage of allowing a potentially relevant variable to be uncontrolled, the solitary nature of the tape five judgment presumably would be unaffected by the departure of some group members. The alternative would have been to cancel a number of sessions due to the tight time schedules of some accomplices. Since Phase I had to be completed within six weeks, the decision was made to schedule as many sessions as possible even at the cost of some possible loss of quality in the data from tape five.

The chairman explained that this last tape was intended to be judged by everyone who participated in the project. The idea was to accumulate a large pile of rating sheets on this particular candidate; therefore, a group decision would not be made but, rather, everyone would make all his own ratings independently without any discussion. The only justification offered for this procedure was that this tape was special. The tape was played, and rating sheets were filled in by subjects and accomplices without any discussion. If subjects attempted to exchange opinions with others, the chairman merely repeated that the ratings should be made independently; this was always sufficient to curtail discussions.

Post-experimental Interview

Appendix 2 contains the form used in conducting the interview. The experimenter interviewed all subjects present at the same time. He asked the same question in turn of each subject, making sure that a fairly even distribution of opportunity was available to each subject to give an initial answer. When sessions involved multiple subjects, practical considerations, such as the strong possibility that some subjects would depart if asked to wait outside, prevented the use of separate interviews although they would have encouraged more open responding. However, the interview technique involved essentially open-ended questions followed by probing. Thus, the experimenter believed he was obtaining fairly honest answers most of the time; although in the case of subjects quite fearful of criticism or rejection, possible suppression of doubts and hesitations may have led to possible misinterpretations of their reasons for conforming. Some subjects might have pretended to accept a pretext for rejection to avoid potential hostility. However, this danger existed regardless of how the interviews were conducted and was dealt with by the experimenter's patient and relaxed probing.

The interview began with questions designed to evaluate the effectiveness of the basic deception. The subject was asked his beliefs on the value of the overall project, as well as what he thought it might accomplish. Next he was asked to comment on the procedures used, e.g., the rating sheets, the form of the discussion, etc. Then, his opinion was solicited on the selection of the tapes as a group, i.e., were they representative. He was questioned then as to whether he felt

any undue influence was exerted during the discussions. This question slid naturally into the next one, viz., how did he feel about the rejection (or acceptance) of the facially deformed applicant. The way this question was answered always revealed a great deal about the subject's inner reactions and emotional state. For example, guilt feelings were often expressed. The subject was asked for his reasons in acting as he did during the debate and making his final act of judgment. The answer to this question helped the experimenter in making his placement of the conforming subject into the conformity classification to be described later. Finally, the subject was questioned on the influence of the other group members on his decision and, specifically, on the influence of the ombudsman when he was present. The time duration of this interview was about ten minutes per subject and debriefing immediately followed. During this interview only two subjects indicated suspiciousness of the deception; therefore, their data was discarded. All other subjects manifested a clear belief in the authenticity of the "project."

Debriefing

This was done in two stages (a) creating a suspicion that something phony was going on, and (b) giving the gist of the hidden aspects of the experiment. Suspicion was created by raising the question, suppose he doesn't have a facial deformity after all? How would this information have gotten in if it is not true? This line of thought was pressed with the subjects until they spontaneously saw the light or else became

prepared for something startling from the experimenter. In this fashion the subject had a few minutes to adjust to the truth rather than receiving the sudden shock of enlightenment. The purpose of the experiment including the need for deception, was discussed, and at the end the subjects were sworn to secrecy.

Control Groups

The two control groups were a class of introductory psychology students containing 16 men and a group of six subjects tested individually under modified experimental conditions. The classroom of control students was tested twice, once at the beginning of summer session and once at the end, about five weeks later. On the first occasion, the five audition tapes were played in the same sequence in which they were used under experimental conditions. Rating sheets were distributed to everyone with the pretext that WBCR wanted to get reactions from several classes to help them in selecting announcers. Pilot testing had indicated that some tapes, especially the critical tape, would be very popular and others would not be. The first control session was designed to establish these popularity ratings more securely. The information sheet for the applicant was read before each tape was played giving these control subjects the same information about each applicant as the experimental subjects had.

On the second occasion, the same classroom was told that a problem had arisen in connection with one of the audition

tapes, and WBCR wanted another series of ratings on it. When the appropriate information sheet was read followed by the replay of the critical tape to the class. After that a statement was read out to explain that "a student leader at WBCR had raised certain objections to the facial deformity," The arguments on public relations aspects of the job and leading the applicant down a blind alley were briefly outlined to these control subjects. Then rating sheets were passed out, filled in by the students, and collected. Thereby a simple assertion of the arguments used to bolster the pretext for rejection was tried on controls in the absence of much social pressure.

A more accurate procedure to control for artifactual rejection of the tape was used with six subjects treated exactly the same as the experimental subjects with the following exceptions (a) the rule of unanimity was dropped along with the point that the group decision would be final, and (b) the arguments were presented in a neutral manner to the subjects over a period of 10 to 15 minutes as factors to be considered before a final judgment is made. Three accomplices were present with each control subject in addition to a WBCR official acting as chairman and the experimenter presenting at length the arguments for rejection. Thereby, social pressure to reject the applicant with the facial deformity was in large part eliminated with little other modification of the basic experimental setup.

Other Data

After debriefing, the subjects were given a questionnaire that asked some basic questions of age, etc., and their feelings about the experiment (Appendix 3). Then they filled out the Dogmatism Scale (Rokeach, 1960) and either took the Rod and Frame Test before leaving or came back to take it later. In Phase 2 the Dogmatism Scale was omitted. The RFT was administered in a darkened room across the hall from the "tape audition room" according to the procedure described in Witkin et al., (1962). Subjects responded to eight trials of the RFT while seated eight feet from the rod and frame with their heads restrained. The subjects did not know this data would be collected until after the conformity test was completed; the explanation offered was in terms of knowing more about the subjects.

Although a danger existed of obtaining invalid data from the personality tests because they were administered after the debriefing, this procedure was, nevertheless, adopted for the following reasons. The experimental situation was presented to the subjects in the guise of a straightforward WBCR project. This appearance was essential to the success of the experiment because anything to do with psychological research had to be removed as much as possible from the minds of the subjects while they were in the group pressure situation. Any psychological testing performed prior to the experiment might have tended to make subjects suspicious of the group pressure (Rosenthal and Rosnow, 1969). In addition, Witkin et al., (1962) state that RFT scores are not affected by previous

testing either by the RFT itself or by other procedures performed just prior to testing.

Chapter 3

RESULTS

Conformity: Phase 1

The combined percentage of all subjects in singles or pairs who conformed were 73%. However, all four groups of Phase 1 containing three or four subjects produced zero yielding. This is significantly different from the groups with the groups with one or two subjects at the .01 level (binomial test, Siegel, 1956). This sample for analysis thus consists of the singles and pairs of subjects (63) less the two who expressed the suspicion they had been in an experiment during the post-experimental interview. Subtracting five others who clearly indicated at the beginning of the debate that they were opposed to certain qualities of the voice, leaves 56 subjects for analysis.

For these subjects, the only independent variable associated with conformity is age. By the median test (Siegel, 1956), higher age is positively related to nonyielding at the .05 level (two-tailed test). The median age of subjects was 20 years with only two subjects over 29 years of age. Almost all were regular Brooklyn College students either in day or night session. Of the 13 nonyielders, eight were in the age bracket 19 to 22 and the other five were 23 to 41 years old. Five of the six subjects over age 23 were nonyielders. Age 23 is taken as a cutoff point because it divides the sample into students with an essentially continuous educational

career and those who have had some years of outside work.

Table 2 indicates that conformity as defined by marking the critical rating sheet "unsuitable" is very high in both single and pair conditions regardless of speech expertise; the presence of an ombudsman does not significantly lower the rate of conformity.

A total of 16 subjects were in the ombudsman condition, and, of these, six were nonconformers. However, four of these six consistently maintained their refusal to yield, thus, exempting themselves from the support of the ombudsman, whose role was only to argue against rejection when subjects showed signs of yielding. The ombudsman seemed to be an effective deterrent to the group pressure for two nonconformers and ineffective for 10 subjects who became conformers. This result will be discussed later.

In both Phases 1 and 2, theoretically, the possibility existed that with more than one subject present in a group, one or two subjects might conform while one or two did not conform. In practice this did not occur. In each session all subjects either conformed or did not conform.

The groups with three or four subjects where no conformity occurred were not experimental sessions in keeping with the research design, which called for accomplices significantly exceeding subjects in number. For this reason they will not be evaluated in this section of the dissertation, but will be mentioned later in connection with the control groups.

Table 2

Proportions of Conforming Subjects, by Condition

		1		2	
		←Age 24	All	←Age 24	All
<u>No</u> <u>Ombudsman</u>	0-1 Speech Courses	10/12	10/13	11/12	11/13
	2+ Speech Courses	5/5	5/6	6/7	7/8
<u>Ombudsman</u>	0-1 Speech Courses	4/7	4/7	5/5	5/5
	2+ Speech Courses	1/1	1/2	0/1	0/2
<u>Totals</u>		20/25 (80%)	20/28 (71%)	22/25 (88%)	23/28 (82%)

Conformity: Phase 2

The percentage of all subjects in Phase 2 marking "unsuitable" was 79%. This is between the overall 73% of Phase 1 and the 84% for Phase 1 subjects under age 24. The age range here was 17 to 21 including three people at age 17, four at age 21, and the other 17 subjects between 18 and 20. The age range of the five nonconformists was 17 to 20, and none had taken more than one speech course. See Table 3.

Table 3

Proportions of Conforming Subjects (Phase 2)

0-1 Speech Courses	12/17
2+ Speech Courses	<u>7/7</u>
	19/24
	(79%)

Subjects' Reactions to Group Pressure

The vast majority of subjects argued long and strenuously against the arguments to reject the applicant. Sometimes in Phase 1 sessions, and almost always in the larger groups of Phase 2, the subjects became angry and somewhat disturbed over the idea of rejecting the applicant. Subjects often denounced the discrimination involved in the majority argument. Nevertheless, most subjects marked "unsuitable" when the majority insisted that a unanimous decision had to be made. In Phase 1 the debate was not allowed to go over 15 minutes by the experimenter; in Phase 2 the maximum length of debate was 30 to 40 minutes, which was reached in most sessions.

The ways different subjects accommodated themselves to the pressure is of special interest. A study of the notes written after the sessions, the hidden tape recordings, and the post-experimental interviews provided the basis for a classification of all the subjects into five categories of conformity. Since this classification was developed after data analysis was begun, another judge could not be provided with independent access to this information.

The first category was nonconformity, the category for those who simply refused to budge no matter what anyone said. Secondly, the category of compromise was for those who, from the point of view of marking "unsuitable", could be considered partial conformists, but, from a broader point of view, should not be grouped with either conformists or nonconformists. Subjects were labeled "compromisers" only when they marked "unsuitable" with the explicit understanding that the decision would not be final, but, rather, the applicant would be brought in for a further review within WBCR itself. For example, one subject classified as a "compromiser" agreed at the end of the debate that further consideration could still be given even if he is marked unsuitable. In the post-experimental inquiry he stated, "I'm trying to accommodate you, and I did get a concession. I have to accept your word if you say you're going to look at it."

Thirdly, rationalistic conformity occurred when a subject accepted a reason that was argued in the debate as a sufficient grounds for rejection. Many of the "rationalistic" conformers simply repeated in slightly altered form during the inquiry what they had said at the end of the debate. At the inquiry one subject said, "I'm doing it for his own good;" earlier he said, "because of his facial deformity we may be leading him up a dead end road." In another case, the debate ended with the experimenter saying, "Do you agree he wouldn't make a good representative of the station?" The subject replied, "Yeah, that I agree with. It's just that as an announcer he's good." In the inquiry he explained, "When you said about representing the station,

it might affect him."

Fourthly, helpless conformity occurred when a subject agreed to mark "unsuitable" despite his belief that the applicant was suitable. For "helpless" conformers, the following examples are typical. Before filling out the rating sheet one subject said, "I'j just like to know how to mark it on overall evaluation." During the inquiry his answer was, "The majority should rule." Another subject suggested that the tape four applicant be interviewed, and when the others rejected the idea, he said, "So then we're marking him unsuitable." Later his explanation was, "only because it had to be unanimous."

Fifthly, indifferent conformity was the case when a subject gave up easily and did not appear to care much. In the next example is a subject classified as an "indifferent" conformer. He asked at the end of the debate, "Does he have important duties, stuff like that?" Then in the inquiry he answered, "He'd have problems with the facial deformity, and there are so many other people." This conformer would have been classed as "rationalistic" except for the speed with which he yielded. In two or three cases it was hard to distinguish among dislike for the voice itself, "rationalistic" conformity, and indifference. But for all the rest a clear categorization could be achieved.

Table 4 presents the classification of subjects by phase. Group ratio is defined as number of accomplices to number of subjects in a session. A breakdown of Phase 1 by group ratio

is provided, but since very few subjects were involved at each group ratio in Phase 2, the division of Phase 2 into its various group ratios has been placed in Appendix 4. A breakdown of conformity type is not given for ombudsman condition, age, or number of speech courses since these variables apparently were not associated with conformity type. However, the number of subjects present was significant in relation to conformity type. All five of the "indifferent" group were clustered in the 4:2 group ratio. More importantly, the "compromises" group rose from 5% of the total in Phase 1 to 37% in Phase 2, while "rationalistic" conformity dropped from 45% in Phase 1 to 17% in Phase 2. In addition, a trend appeared in the "rationalistic" group: with only one subject present this group accounted for 54% of all subjects, with two subjects present they accounted for 36%, and in Phase 2 they were 17% of the total. "Nonconformity" and "helpless" conformity were relatively unaffected by group ratio.

Table 4

Number of Subjects by Type of Conformity and by Group Ratio (Accomplices/Subjects) for Phases 1 and 2

Ratio	Non-Conformity	Comp.	Rational.	Helpless	In-dif.	Total
3:1	8	2	15	3	0	28
4:2	5	1	10	7	5	28
Phase 1 Total	13	3	25	10	5	56
Percentages	23%	5%	45%	18%	9%	100%
6/7/8:3/4	5	9	4	6	0	24
Phase 2 Percentages	21%	37%	17%	25%	0%	100%

Phase 1 was compared with Phase 2 as to the proportion of experimental sessions in which conformity occurred. There was a drop from 31/44 to 2/8. This is a significant reduction in conformity at the .01 level in Phase 2 (chi-square = 8.8).

Control Groups

The main purpose of the control groups was to assure that rejection of the applicant, when it occurred, would usually be due to group pressure. The classroom control group rejected the tape in two out of thirteen cases (15%) on its merits. Of the total of 99 experimental subjects, only five (all from Phase 1) rejected the tape on its merits; these five were excluded from data analysis.

However, the major potential difficulty concerns the plausibility of the arguments to reject the facial deformity applicant. If the arguments could be clearly seen as specious by any intelligent person, subjects might see through the entire deception. At the least they could become dubious and uninvolved in the project even if they still considered it legitimate. Thus, an element of plausibility was essential to maintain in the argumentation. On the other hand, too much plausibility would confound the whole point of the research by providing a basis for rejecting the tape on grounds that many people would find reasonable.

In actuality, the classroom control group showed no rejection after the facial deformity arguments were briefly presented on the second go-around. However, this control

group was not fully adequate since spontaneous comments could be heard constituting social pressure not to reject the tape, and, in addition, the arguments were not thoroughly presented in a comparable setting. Therefore, the six laboratory controls were run as before except that the rule of unanimity was not imposed, and no one either supported or opposed the arguments raised. Although group pressure was thus greatly reduced, it was not completely absent since the raising of the problem conferred automatically some authenticity to the issue. Only one of six control subjects rejected the tape. These subjects were all 18 or 19 years old, thus, corresponding in age to the stratum from which the proportion of conformity was highest. The five subjects who disagreed with the validity of the arguments to reject felt quite definitely that the arguments were of some slight merit but were not fully sufficient to make them change their minds. The subject who accepted the arguments was convinced only after about ten minutes of discussion. From this a possibility appears that a few of the "rationalistic" or "indifferent" subjects might actually have been convinced on the merits of the arguments offered for rejection. Finally, the four groups of subjects in Phase 1 numbering three or four who were not outnumbered by accomplices constitute an accidental control. Here there were 0 out of 12 who would accept the arguments in a situation where the forces of social pressure were in conflict.

Other Ratings

In almost all sessions quick agreement led to rejection of tapes one and two, and to acceptance of tape three. Therefore, when tape four came up for discussion, no precedent had been established for threshing out a consensus of opinion. No subject had developed a set to respond to dissension within his specific group from prior experience in that group. Furthermore, by the time tape four arrived, some kind of "group spirit" had developed because of the ease of reaching consensus and the enjoyment of the task. Also, the group had had experience in both accepting and rejecting one or more tapes. Thus on the critical tape some degree of group cohesiveness had developed, and the only issue involved was that of the facial deformity. In other words, judging by the contents of both group discussions and post-experimental interviews during the tape four debate, no bias seemed to have arisen from preexisting preferences for acceptance or rejection or from any special procedure for dealing with dissension.

In comparing the ratings of tape four on diction, voice quality, etc., between experimental and control groups, no significant differences could be detected. Almost all subjects rejecting the applicant gave his voice high ratings. Many of these subjects also made a comment on the rating sheet that the voice itself was suitable but the facial deformity disqualified him.

Rejection of tape five occurred in only 15% of yielders, the same percentage as with the classroom control group. This result occurred in Phase 1 and fails to support the theoretical predictions concerning post-conformity effects. Thus, tape five was not used in Phase 2. Among the total of 27 nonconformers of Phase 1, 37% rejected tape five, but this figure is not significantly higher than for the conformers (chi-square test).

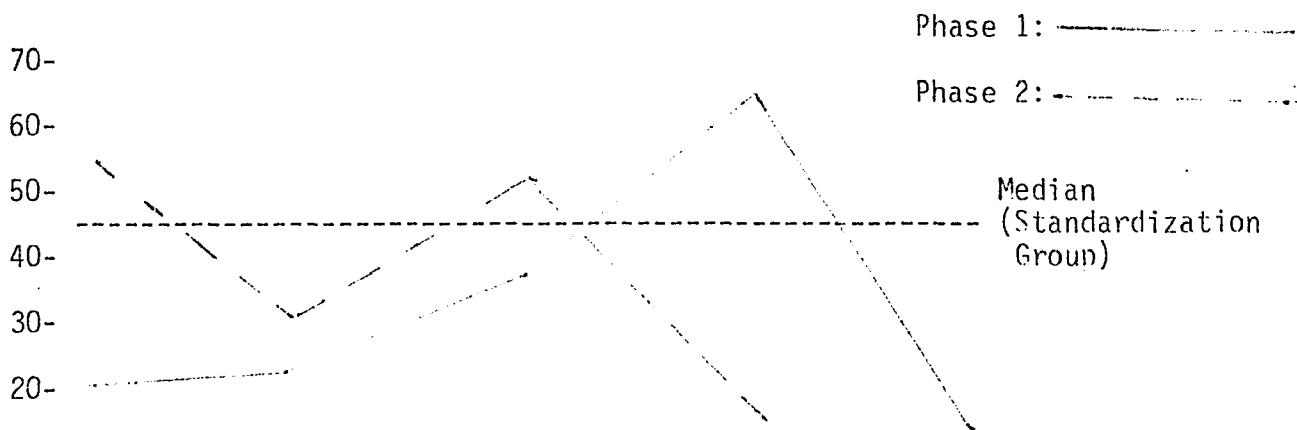
Personality Variables

Median RFT and D scores have been plotted by type of conformity in Figures 1 and 2. The Dogmatism Scale was not administered in Phase 2 since no significant differences showed up in Phase 1. The RFT score for each subject is the sum of errors over eight trials.

For the present sample the RFT mean score was 49.4 and the standard deviation was 39.5. In the standardization sample (Witkin et al., 1954) the RFT mean and standard deviation were 59.2 and 44.0 respectively. The Spearman correlation coefficient for RFT vs. D scores was .235, which was not significant.

Figure 1.

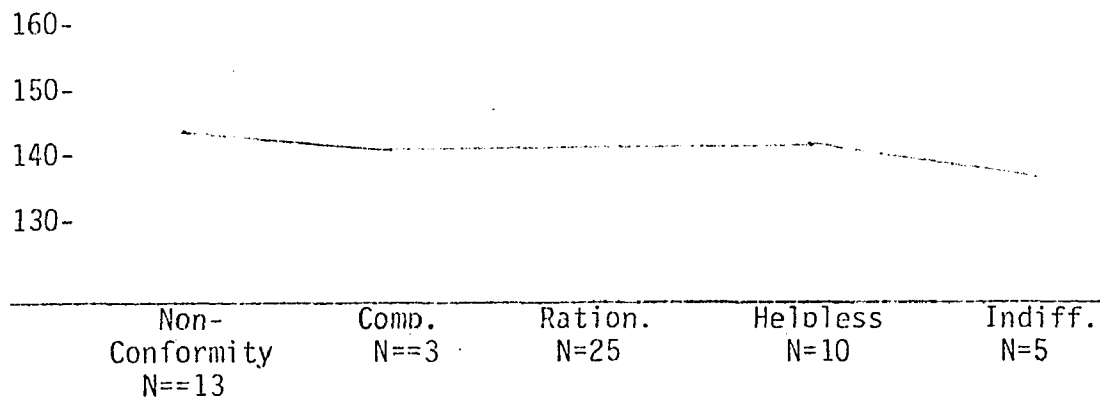
Median RFT Scores by Type of Conformity



	Non-Conformity	Comp.	Ration.	Helpless	Indiff.
	N=7 (P 1)	N=2 (P 1)	N=25 (P 1)	N=9 (P 1)	N=3 (P1)
	N=4 (P 2)	N=9 (P 2)	N=3 (P 2)	N=6 (P 2)	

Figure 2

Median D Scores by Type of Conformity (Phase 1 Only)

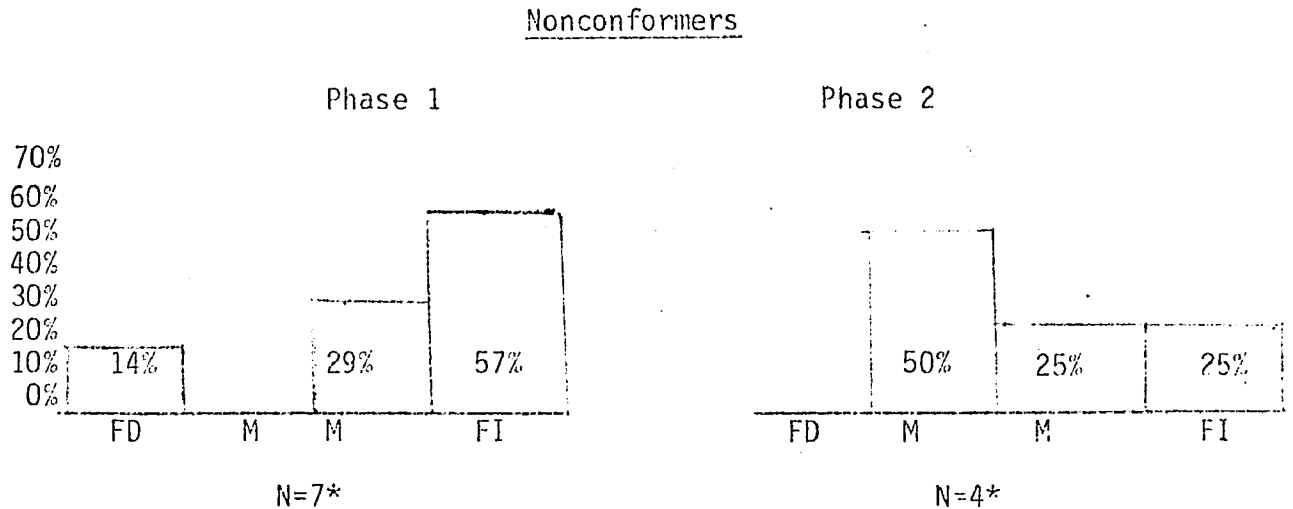


	Non-Conformity	Comp.	Ration.	Helpless	Indiff.
	N=13	N=3	N=25	N=10	N=5

Figure 3

Field Dependence-Independence Breakdown for Nonconformers

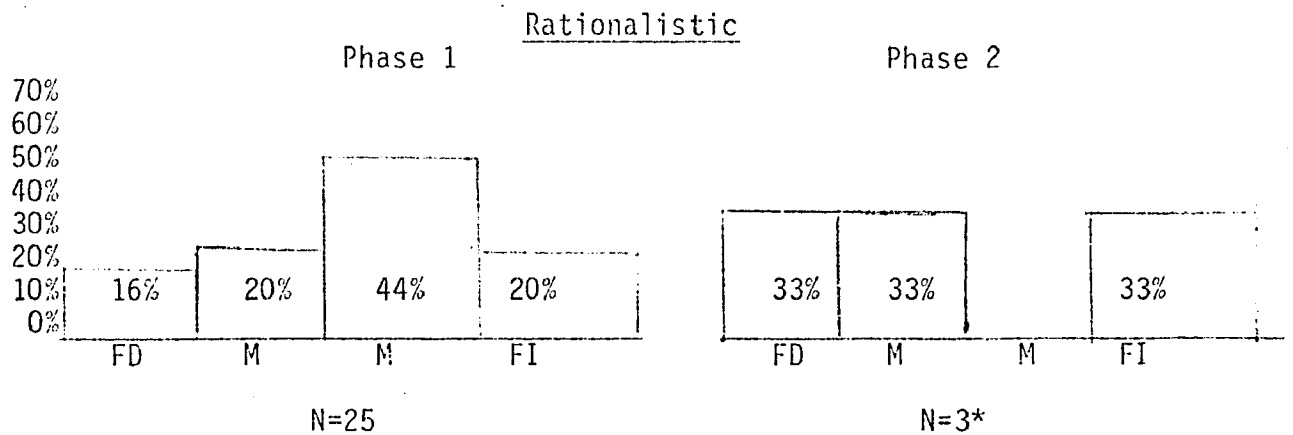
FD: 78+ (Upper Quartile)
M: 25-50; 51-77 (Middle Quartiles)
FI: 24- (Lower Quartile)



*N's are reduced from 13 to 7 and from 5 to 4 due to subjects who could not be reached for RFT testing, or were over age 23

Figure 4

Field Dependence-Independence Breakdown for Rationalistic Conformers



*N is reduced from 4 to 3 due to a subject who could not be reached for RFT testing

Median RFT scores in Phase 1 showed the interesting result of "rationalistic" conformers being significantly more field dependent than nonconformers (41 vs. 22, Mann-Whitney $U = 44-1/2$, $p .05$) and "helpless" conformers significantly more field dependent than "rationalistic" conformers (63 vs. 41, Mann-Whitney $U = 66$, $p .05$). "Rationalistic" conformers had a median only slightly different from that of the standardization sample (45) so that the majority of "non-conformers" were extremely field independent and the majority of "helpless" conformers were extremely field dependent. Interestingly "nonconformers" over the age of 23 had a median RFT score of 53 which is significantly higher than that of the younger "nonconformers" (Mann-Whitney $U = 5-1/2$, $p .05$).

Phase 2 results show a different picture, but due to the smallness of the sample no significant differences can be detected. Of the four nonconformers tested, only one was field independent. And of the six "helpless" conformers, none was field dependent and four were field independent. This pattern is the reverse of what was found in Phase 1. A breakdown of the conformity classification by RFT classification is shown for both phases in Figures 3 to 7.

Post-Experimental Interview and Debriefing

Almost all subjects were startled to learn they had been in an experiment. The post-experimental interview was very useful for testing the existence of any suspicions of

the situation since each subject had to express himself on his reactions to the various things that had happened. In the case of the two subjects whose data were discarded, their suspicions were revealed before the debriefing could begin. Anyone else with suspicions would have had to be very adept at deception to prevent the experimenter from recognizing that he was not taking things at face value. As a final check, the subject was asked after the debriefing if he had had any suspicions. The usual answer was no, but occasionally a subject said that he was not sure at first but after a while got caught up in the situation and reacted naturally.

The interview was also useful as a means of testing the stability of the subject's way of coping with the group pressure. Every subject answered why he decided on tape four in a manner consistent with his actual words or gestures at the end of the debate. Unfortunately, independent judges could not be used as a check on the classifications since at the time of data collection the classifications had not been thought of and thus the data could not be independently reviewed for this purpose.

Also, the low quality of the hidden tape recordings often allowed the mixture of voices at the end of the debate to obliterate the subjects' final reactions. In addition, some conformers made their final statements with a nod of the head or some other inaudible expression of assent. Therefore, the retrospective notes made at the end of the sessions along with the answers given during the inquiry were sometimes crucial in making the conformity classifications.

Chapter 4

DISCUSSION

Possible Limitations of the Data

The methodology followed in this experiment suggests some limitations in the evaluation of the results. These limitations to be discussed are partly a general problem in most social psychological research and partly specific to this research.

First, the question arises of the volunteers' characteristics. The subjects came to the experiment, in a sense, preselected for willingness to do as they were asked. The majority of people invited to participate in the "project" turned down the request. Therefore, the question of bias must be raised regarding the results due to the method of subject selection. The main result of the selection bias would be to eliminate some potential subjects for whom the demand characteristics of the situation would tend to be weak. In other words, the obtained levels of conformity may have been higher than they would have been with a random sample. However, the possibility of a different sample giving different conformity results relative to RFT and group size is unlikely. A reason is not to be found for questioning the relationships within the data other than the percentage of "nonconformists." Rosenthal and Rosnow (1969) in their extensive review of studies that compare volunteers with nonvolunteers, postulate that volunteers tend to have a higher need for approval, are higher in intelligence, and also are lower in authoritarianism. Nevertheless, Rosenthal

and Rosnow find nothing to imply that experimental variables have differential effects on volunteers as compared to non-volunteers. The possibility does exist, however, that volunteers may be motivated to confirm what they perceive to be the experimenter's hypothesis, but this possibility is not relevant to this experiment.

Secondly, variability in the sessions is a possible problem. Accomplices varied from session to session, as did the ways in which the arguments were debated on tape four. However, since this type of variability affected all conditions more or less equally, except larger groups where the debates lasted longer, no reasons seems to support the assumption that the major results were influenced by session variability.

Thirdly, subjects were not randomly assigned to conditions. However, they were in effect assigned by chance factors such as scheduling contingencies and the absence of expected co-subjects. In short, the opportunity for experimenter bias or any other bias in subject assignment was eliminated since conditions were run in irregular alternation as determined at the last moment by who was available to participate.

Fourthly, the laboratory control group and the large experimental groups of Phase 2 should ideally have been mixed in with the Phase 1 groups. Since they were not accidental biasing could have occurred. However, the subjects of Phase 2 came from the same lists as the subjects of Phase 1, and thus no systematic differences occurred between the subjects used in the two phases. Another possibility for bias

involves the experimenter, but here bias is shown to be limited because Phase 2 was not undertaken to test any specific hypothesis.

Finally, the appropriateness of the RFT scores are not subject to either practice effects or specific moods in the subjects.

Conformity in General

Before the implications of this study are analyzed, an overview of conformity in general will be presented.

Conformity may be considered to have three separate and distinct meanings. One meaning refers to situations in which a person has weak, minimal, or no preexisting response tendencies in conflict with the social pressure being exerted. In these situations what might be called a conformity of convenience occurs. With little or no reluctance the person yields to social pressure because he finds it relatively easy and convenient to do so. Examples of this kind of yielding abound in everyday life: tasting a new food, following a new work procedure, etc. The classical example of this form of conformity in the experimental literature is Sherif's autokinetic effect, in which each subject is tested for the first time in a group. A person's frame of reference may or may not be influenced by this conformity of convenience depending on later developments. However, the distinguishing feature of this type of yielding is the absence of resistance. In the Asch and Milgram situations and

in the present study, the conformity of convenience did not occur.

Another meaning of conformity refers to situations in which a person appears to act reluctantly and contrary to his own wishes due to social pressure. The preexisting response tendencies are relatively strong, but the individual complies with what he will openly admit are his perceptions of the expectations of others although these expectations are in conflict with his own wishes. Most of the subjects in the Asch and Milgram situations are conformers of this type. Likewise, in the present study, a subgroup of conformers called "helpless" conformers were delineated on the basis of their answers just prior to yielding and on their answers in the post-experimental inquiry when they were asked why they conformed. Further evidence for the meaningfulness of this category is found in Phase I of this study; the "helpless" conformers were the only subgroup to be relatively field dependent on the basis of the RFT test. Field dependence has been theoretically linked to a pervasive tendency to place more weight on environmental influences than on perceptions or needs intrinsic to the self. The phrase, "helpless conformer", seems appropriate for people who in a specific situation show behavior that is sometimes called "compliance" in the conformity literature. Also, their behavior in personality studies might be expected to show relatively greater influence from the environment than the behavior of others. To repeat, the hallmark of this form of yielding is knowingly to act in opposition to one's own wishes. That is,

the subject admits his reluctance to yield to pressure but if given the opportunity, attempts to justify himself by emphasizing his own lack of freedom in the situation.

Examples of this are frequent in daily life occurring whenever a person follows but does not fully approve of instructions given implicitly or explicitly.

The third meaning of conformity refers to situations in which a person acts contrary to strong preexisting response tendencies; however, he does so without reluctance and without admitting to any conflict between his own wishes and the expectations of others. This form of yielding has been referred to (Kiesler, 1969; Allen, 1965) as conformity with attitude change. Clear examples are not available from the conformity literature because when a person does not admit to acting against his own wishes, a difficulty emerges in distinguishing the conformity of convenience from this type of conformity. Only when attitude changes are measured along with conformity can a person be spotted to act contrary to preexisting response tendencies, freely, without reluctance, and without admitting to a conflict between his own wishes and the expectations of others. However, one research area seems to provide examples of this type of conformity -- the cognitive dissonance field.

The theory of cognitive dissonance holds that attitude change occurs only in consequence of conformity behavior. But since demand characteristics are generally found or expected to be found in most human testing situations, the argument could be made that attitude change measured after conformity may actually have occurred prior to conformity

behavior. This occurs after an initial attitude measurement that is followed immediately by an implicit or explicit effort at persuasion. In the present study, most subjects in Phase 1 could be classified as conformers with attitude change, and they were labelled "rationalistic" conformers. Their attitude change clearly occurred prior to conformity. In Phase 2 of this study, only a few were "rationalistic" conformers, and the possible reasons for this will be discussed in the next section. However, the meaningfulness behind the delineation of this category of conformity lies in the use of various techniques in different lines of conformity research; subjects can be found who appear to be performing counterattitudinal behavior but upon post-experimental questioning do not appear to perceive any conflict between their own wishes and the expectations of others in the situation. For example, in the Asch situation, usually some subjects express doubt afterwards concerning their initial perceptions. Thus, they explain their conformity as due to a belief that the majority may have had more accurate perceptions than they did, and not due to their lack of power or helplessness. In this way the subject can avoid the admission of conflict.

"Nonconformists" in all paradigms of conformity research have expressed the belief that they are in conflict with the majority. They, in fact, behave in line with their own perceptions and preexisting response tendencies. In Phase 1 of the present study, they predictably were found to be

almost entirely made up of field independent people. On the other hand, the "rationalistic" conformers had a median RFT score that was close to that of the standardization sample. This, too, makes sense in light of the formulation that a "rationalistic" conformer is influenced by his environment to the point of conformity despite strong preexisting response tendencies; but, he is also committed to his own perceptions and wishes to the extent of changing an attitude to act in a compatible way with his own perceptions. In short, he handles a conflict by minimizing its importance or denying its existence, while simultaneously he prepares to act in the way that he perceives is expected of him; thus he alters his personal frame of reference to make it compatible with his behavior. This formulation refers to the same phenomenon with which cognitive dissonance deals but uses terms derived from studies of field dependence-independence, thereby moving the area of conflict from the realm of personal cognitions to the realm of individual vs. environment. The "rationalistic" conformer is thus seen as solving the conflict between himself and others by refusing to claim a victory for the self, as "nonconformers" do, or admit a defeat to the self, as "helpless" conformers do. Instead he allows victory to environmental influence while aligning himself with that influence. In this way he perceives himself as meeting the expectations of others, but also following his own wishes. Another way of dealing with the conflict is through compromise which will be discussed in the next section.

The logic of this three-way classification of conformity meanings is as follows: Two dimensions are assumed to influence the category of conformity in which a conformer may be placed. One dimension is strong vs. weak preexisting response tendencies; the other is yes vs. no admission of conflict between self and others. When preexisting response tendencies are weak, admission of conflict is basically irrelevant; a single type of conformity exists referred to as the conformity of convenience. When preexisting response tendencies are strong, admission of conflict determines the category of conformity as either acceptance of conflict with defeat for the self ("helpless" conformity) or denial of conflict via adoption of the others' viewpoint ("rationalistic" conformity).

Inhibition of Conformity

In any given situation containing social pressure on subjects to act contrary to their preexisting response tendencies, the literature states that three forms of response may occur. The first type of subject will be alone and unaided and will refuse to yield, viz., the nonconformer. The second type of subject will conform regardless of countervailing social pressure. The third type will conform when left without adequate social support to resist pressure but will not conform when appropriate countervailing pressure exists within the environment.

In the present study new ways occur for examining what constitutes adequate support to resist pressure. In the

basic Asch situation, conformity is inhibited in most subjects when one person is present to lead the way in opposing the majority. However, a single role model proved to be an insufficient basis for inhibiting conformity in almost all subjects in the present study; the ombudsman failed to sway more than two of twelve subjects, and the high level of conformity continued when two subjects were present instead of only one. Phase 2 indicates that conformity may be significantly reduced in a situation where social pressure is exerted through persuasive back-and-forth argument but only when the minority consists of at least three people.

An examination of the features of the present study regarding inhibition of conformity that distinguish it from the basic Asch situation may prove worthwhile. The fundamental finding in a comparison of the two phases of the present study is that "rationalistic" conformity almost disappears and is replaced by "compromise" in Phase 2, while "nonconformity" and "helpless" conformity remain at about the same proportions found previously. The obvious interpretation is that "rationalistic" conformity, with its denial of conflict between self and others, becomes unnecessary for about half the subjects in Phase 2 when each subject finds two others who agree with him. Evidently, agreement from one other is inadequate support, but agreement from two others is sufficient to produce a refusal to conform.

Some understanding of this phenomenon may be developed from a consideration of the social norms governing the resolution of interpersonal conflicts. In many situations where each person puts forward his own ideas for making a group decision, a norm of accommodation is sought whereby everyone will give up something for a compromise acceptable to all. However, the norm of accommodation does not apply necessarily to conflict situations where no discussion is possible such as the Asch situation. Thus, in the latter case, a possibility does not develop for a compromise decision agreed to by the whole group. Conformity will then be inhibited when a role model for resistance is present. In Phase 1 of the present study, compromise was rare (2 sessions out of 52) suggesting that a role model for resistance is ineffective when a subject may be required to justify his defiance of the apparent role obligations.

To clarify, the inhibition of conformity can be dealt with by considering social pressure under three conditions. The first case is of arbitrary pressure where no real explanations are offered. In this circumstance, resistance is much more likely when a role model for resistance is present (Asch situation). The second case is of pressure via discussion but with at most just one other dissenter present. Here the presence of another dissenter does not increase the likelihood of resistance. The third case involves pressure via discussion but with two other dissenters. Here resistance is greatly increased; a minority subgroup is

formed which allows for the development of countervailing role obligations that tend to operate against the majority pressure. When the people present coalesce into two opposing blocs, the norm of accommodation tends to influence the ultimate decision in a way which ultimately leads to compromise.

Conformity Pressure

Conformity pressure may emanate from an authority figure (Milgram, 1963; 1964; 1965), from an absent prestige person or group (Hovland et al., 1953), from a noncommunicating majority (Asch, 1956), and even from a noncommunicating minority (Moscovici et al., 1970), as well as from the direct face-to-face persuasion of a group majority as studied here. In the introduction to this study the point was made that the individual must identify with the source of pressure, whatever it may be, if he is to conform voluntarily. One of the findings here may be taken as support for this statement. A statistically significant majority of subjects over the age of 23 were found to be nonconformers. Although the older subjects could have been less likely to believe the pretexts for rejection because of their greater maturity, they also could have been less likely to identify with and, therefore, be influenced by the younger students who were the accomplices. Both interpretations seem plausible and both could be correct, but the evidence does not favor one over the other. To decide between the alternatives,

a similar experiment would be required using the same pretexts but using peer group pressure on older students.

Another condition that has been found necessary before conformity pressure can overcome strong preexisting response tendencies is the plausibility of the influence attempt. For example, in the Asch situation (Asch, 1956) and with the autokinetic effect (Whittaker, 1964), conformity is greatly reduced when the responses of others are highly divergent from the subjects' perceptions. In the present study, the objection might be raised that the pretexts for rejection were altogether too plausible, and that conformity resulted as much from the merits of the arguments constituting the influence attempt as from the social pressure. This is equivalent to suggesting that conformity in some specific administration of the Asch situation is due partly to physical difficulties in the subjects' making veridical judgments.

However, three pieces of evidence appear to argue against this view (a) the classroom control group contained nobody who accepted the pretexts for rejection, (b) the laboratory control group contained only one out of six subjects who accepted the pretexts, and (c) the four accidental experimental groups containing two balanced subgroups opposing each other produced nobody who either accepted the pretexts themselves or accepted a compromise. Again, the argument could be raised that although plausibility may be weak when social influence is not a significant

factor, the failure of social support in Phase 1 to significantly inhibit conformity (two subjects together and/or the ombudsman) suggests too much plausibility for the pretexts within the context of a strong influence attempt. But obviously some plausibility is essential, and in the absence of a scale to measure this factor the decisive fact must be the significant reduction in conformity from Phase 1 to Phase 2. Except for the sizes of majority and minority, experimental conditions were essentially the same from Phase 1 to Phase 2. Thus, the drop in conformity suggests that the plausibility of the pretexts is not necessarily strengthened by strong group pressure. In fact, this study may be perceived as an investigation of which social conditions increase the plausibility of persuasive arguments and which social conditions do not increase it.

Chapter 5

CONCLUSIONS

In the introduction six hypotheses were formulated. The first, predicting an effect on conformity from the manipulation of level of felt competence, was disconfirmed. The second, predicting an effect from the presence of an ombudsman, was essentially disconfirmed. The third hypothesis referred to the influence of personality variables, and was partially confirmed for field dependence-independence, but disconfirmed for authoritarianism. The last three hypotheses involved acceptance of tape five. Brock's hypothesis predicting general acceptance was confirmed, but the circumstances of the test were weak. The hypothesis predicting acceptance by authoritarian yielders was also confirmed, but this was meaningless since authoritarianism did not affect conformity on tape four. Finally, the cognitive dissonance prediction of rejection of tape five by tape four conformers was disconfirmed.

The original idea for this study was to set up an Asch-type situation, but involving discussion prior to the making of a judgment. Disconfirmation of the first three hypotheses probably occurred because the discussion format was novel.

The major finding of this study was that two subjects together were just as likely to yield to conformity pressure

as a single subject, but three subjects together usually resisted the pressure successfully. The outcome in the latter case often involved compromise which was rare in the former case. On the other hand, "rationalistic" conformity i.e., a form of yielding with attitude change, was the predominant reaction of subjects alone or in pairs but was infrequent when three subjects were together. The overall decrease in conformity with three subjects present was largely accounted for by the drop in "rationalistic" conformity. Moreover, since the arguments used to induce yielding generally were unpersuasive to control groups but acceptable to most conformers, an underlying implication appears that in real life attitude change may often accompany the act of conformity.

RATING SHEET FOR ANNOUNCER APPLICANT

Voice Identification _____

NOTE: Ratings are to be made only after group discussion.

OVERALL EVALUATION: Suitable _____

Unsuitable _____

Diction

Comments

Excellent _____

Very good _____

Good _____

Fair _____

Poor _____

Voice Quality

Excellent _____

Very good _____

Good _____

Fair _____

Poor _____

Pitch

Just right _____

Too high _____

Too low _____

Pace of Delivery

Just right _____

Too fast _____

Other
(Specify) _____

APPENDIX 1 (Cont'd.)

Speech manner

Comments

Just right _____

Too formal _____

Too informal _____

APPENDIX 2

FOR FOR POST-EXPERIMENTAL INQUIRY

- 1.
- 2.
- 3.

Purpose

Procedures

Selection

UI

FD

Reason

Omb., Others

Su

LT

APPENDIX 3
QUESTIONNAIRE

1. Name _____
2. Age _____
3. Year (e.g. Soph.) _____
4. Major _____
5. How many speech or theatre course taken? _____
6. How qualified to judge voices do you consider yourself?
A lot _____
Somewhat _____
A little _____
Not at all _____
7. If answer above is either "A lot" or "Somewhat", what experience has provided the basis for this?

8. Career goal _____
9. How many credits have you taken at other colleges _____
10. What is your reaction to the deception in the experiment?
Deception was necessary, but very embarrassing _____
Deception should not have been used _____
Psychologists should not study such things _____
Other _____

APPENDIX 4

BREAKDOWN OF TABLE 3

Type of Conformity by Group Ratio -
(accomplices / subjects)

<u>Ratio</u>	<u>Non-</u> <u>conformity</u>	<u>Compro-</u> <u>mise</u>	<u>Rational-</u> <u>istic</u>	<u>Help-</u> <u>less</u>	<u>Indiff.</u>	<u>Total</u>
3:1	8	2	15	3	0	28
4:2	5	1	10	7	5	28
	23%	5%	45%	18	9%	100%
6:4	3	1	0	0	0	4
6:3*	2	0	1	2	0	5
7:4	0	0	3	1	0	4
7:3	0	6	0	3	0	9
8:3*	0	2	0	0	0	2

* An accomplice played the role of a dissenter to bolster the two subjects in one group of 6:3 and one group of 8:3.

REFERENCES

- Allen, V.: Situational factors in conformity. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. Volume 2. New York: Academic Press, 1965, pp. 133-175.
- Argyle, M.: Social pressure in public and private situations. Journal of Abnormal and Social Psychology. 1957, 54, 172-175.
- Aronson, E.: The theory of cognitive dissonance: a current perspective. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. Volume 4. New York: Academic Press, 1969.
- Asch, S.E.: Studies of independence and conformity: 1. A minority of one against a unanimous majority. Psychological Monographs, 1956, 70(9), Whole No. 416.
- Asch, S.E.: Issues in the study of social influences on judgment. In I.A. Berg and Bass, B.M. (Eds.), Conformity and Deviation. New York: Harper, 1961, pp. 143-158.
- Barker, E.N.: Authoritarianism of the political right, center and left. Journal of Social Issues, 1963, 19, 63-74.
- Bass, B.M.: Conformity, deviation, and a general theory of interpersonal behavior. In I.A. Berg and Bass, B.M. (Eds.), Conformity and Deviation. New York: Harper, 1961, pp. 38-100.
- Bem, D.J.: Attitudes as self-descriptions: another look at the attitude-behavior link. In A.G. Greenwald, T.C. Brock, and T.M. Ostrom (eds.), Psychological Foundations of Attitudes. New York: Academic Press, 1968, pp. 197-215.
- Berkowitz, L. and Walker, N.: Laws and moral judgments. Sociometry, 1967, 30, 410-422.
- Blake, R.R. and Mouton, J.S.: Conformity resistance and conversion. In I.A. Berg and Bass, B.M. (Eds.), Conformity and Deviation. New York: Harper, 1961, pp. 1-37.
- Brehm, J.W.: Attitude change from threat to attitudinal freedom. In A. G. Greenwald, T. C. Brock, and T.M. Ostrom (Eds.), Psychological Foundations of Attitudes. New York: Academic Press, 1968, 277-296.

REFERENCES
(cont'd.)

- Brehm, J. W. and Cohen, A. R.: Explorations in Cognitive Dissonance. New York: Wiley, 1962.
- Brock, T.C.: Dissonance without awareness. In R.P. Abelson et al., (Eds.), Theories of Cognitive Consistency: A sourcebook. Chicago: Rand McNally, 1968, 408-416.
- Brock, T.C.: On interpreting the effects of transgression upon compliance. Psychological Bulletin, 1969, 72, 138-145.
- Campbell, D.T.: Conformity in psychology's theories of acquired behavioral dispositions. In I. A. Berg and B. M. Bass (Eds.), Conformity and Deviation. New York: Harper, 1961, pp. 101-142.
- Clark, S.L.: Authoritarian attitudes and field dependence. Psychological Reports, 1968, 22, 309-310.
- Coleman, J.F., Blake, R.R., and Mouton, J.S. Task difficulty and conformity pressures. Journal of Abnormal and Social Psychology, 1958, 57, 12-122.
- Crutchfield, R.S.: Conformity and character. American Psychologist, 1955, 10, 191-198.
- Deutsch, M. and Gerard, H.B.: A study of normative and informational social influence upon individual judgment. Journal of Abnormal and Social Psychology, 1955, 51, 629-636.
- Ehrlich, H.J. and Lee, D.: Dogmatism, learning and resistance to change. Psychological Bulletin, 1969, 71, 249-260.
- Fagen, S.A.: The effects of real and experimentally reported ability on confidence and conformity. American Psychologist, 1963, 18, 357-358.
- Festinger, L.: A theory of social comparison processes. Human Relations, 1954, 7, 117-140.
- Festinger, L.: A theory of Cognitive Dissonance. Evanston: Row and Peterson, 1957.
- Festinger, L., Gerard, H.B., Hymovitch, B., Kelley, H.H. and Raven, B.: The influence process in the presence of extreme deviates. Human Relations, 1952, 5, 327-346.

- Fillenbaum, S.: Dogmatism and individual differences in reduction of dissonance. Psychological Reports, 1964, 14, 47-50.
- Fisher, S., Rubinstein, I. and Freeman, R. W.: Intertrial effects of immediate self-committal in a continuous social influence situation. Journal of Abnormal and Social Psychology, 1956, 52, 200-207.
- Foulkes, D. and Foulkes, S. H.: Self-concept, dogmatism, and tolerance of trait inconsistency. Journal of Personality and Social Psychology, 1965, 2, 104-110.
- French, J.R.P., Jr.: A formal theory of social power. Psychological Review, 1956, 63, 181-194.
- Gerard, H.B. and Hottel, G.S.: Time perspective, consistency of attitude, and social influence. Journal of Abnormal and Social Psychology, 1961, 62, 565-572.
- Goldberg, S. C.: Three situational determinants of conformity to social norms. Journal of Abnormal and Social Psychology, 1954, 49, 325-329.
- Hellkamp, D.T. and Marr, J.N.: Dogmatism and field-dependency. Perceptual and Motor Skills, 1965, 20, 1046-1048.
- Homans, G.C.: Social Behavior: its Elementary Forms. New York: Harcourt, 1961.
- Hunt, J. McV.: Traditional personality theory in the light of recent evidence. American Scientist, 1965, 53, 60-96.
- Hunt, M.F. Jr., and Miller, G.R.: Open- and closed- mindedness belief-discrepant communication behavior, and tolerance for cognitive inconsistency. Journal of Personality and Social Psychology, 1968, 8, 35-37.
- Hovland, C.I., Janis, I.L., and Kelley, H.H.: Communication and Persuasion. New Haven: Yale Univ. Press, 1953.
- Jackson, J.A.: Conceptual and measurement model for norms and roles. Pacific Sociological Review, 1966, 9, 35-47.
- Jackson, J.M. and Saltzstein, H.D.: The effect of person-group relationships on conformity processes. Journal of Abnormal and Social Psychology, 1958, 57, 17-24.
- Johnson, B.R.: An investigation of the cognitive and defensive aspects of dogmatism. Dissertation Abstracts, 1966, 26, 6838.

- Jones, E.E., Wells, H.H., and Torrey R.: Some effects of feedback from the experimenter on conformity behavior. Journal of Abnormal and Social Psychology, 1958, 57, 207-213.
- Kelley, H.H. and Lamb, T.W.: Certainty of judgment and resistance to social influence. Journal of Abnormal and Social Psychology, 1957, 55, 137-139.
- Kelman, H.C.: Effects of success and failure on "suggestability" in the autokinetic situation. Journal of Abnormal and Social Psychology, 1950, 45, 267-285.
- Kelman, H.C.: Processes of opinion change. Public Opinion Quarterly, 1961, 25, 57-78.
- Kessler, M.R. and Kronenberger, E.J.: Dogmatism and perceptual synthesis. Perceptual and Motor Skills, 1967, 24, 179-182.
- Kidd, J.S. and Campbell, D.T.: Conformity to groups as a function of group success. Journal of Abnormal and Social Psychology, 1955, 51, 390-393.
- Kiesler, C.A.: Group pressure and conformity. In J. Mills (Ed.), Experimental Social Psychology. New York: Macmillan, 1969.
- Kleck, R. E. and Wheaton, J.: Dogmatism and responses to opinion-consistent and opinion-inconsistent information. Journal of Personality and Social Psychology, 1967, 5, 249-252.
- Linde, T.F. and Paterson, C.H.: Influence of orthopedic disability on conformity behavior. Journal of Abnormal and Social Psychology, 1964, 68, 115-118.
- Linton, H.B.: Autokinetic judgments as a measure of influence. Journal of Abnormal and Social Psychology, 1954, 49, 464-466.
- Linton, H.B.: Dependence on external influence correlates in perception, attitudes, and judgment. Journal of Abnormal and Social Psychology, 1955, 51, 502-507.
- Lott, A.J. and Lott, B.E.: Group cohesiveness, communication level and conformity. Journal of Abnormal and Social Psychology, 1961, 62, 408-412.

- Luchins, A.S. and Luchins, E.H.: On conformity with true and false communications. Journal of Social Psychology, 1955, 42, 283-303.
- Mann, R.D.: A review of the relationships between personality and performance in small groups. Psychological Bulletin 1959, 56, 241-270.
- Mausner, B.: Studies in social interaction: III Effect of variation in one partner's prestige on the interaction of observer pairs. Journal of Applied Psychology, 1953, 37, 391-393.
- Mausner, B.: The effect of one partner's success in a relevant task on the interaction of observer pairs. Journal of Abnormal and Social Psychology, 1954, 49, 557-560.
- Mausner, B.: Studies in social interaction: I. A conceptual scheme. Journal of Social Psychology, 1955, 41, 259-270.
- McGuckin, H.E. Jr.: The persuasive force of similarity in cognitive style between advocate and audience. Speech Monographs, 1967, 34, 145-151.
- Milgram, S.: Behavioral study of obedience. Journal of Abnormal and Social Psychology, 1963, 67, 371-378.
- Milgram, S.: Group pressure and action against a person. Journal of Abnormal Psychology, 1964, 69, 137-143
- Milgram, S.: Liberating effects of group pressure. Journal of Personality and Social Psychology, 1965a, 1, 127-134.
- Milgram, S.: Some conditions of obedience and disobedience in authority. Human Relations, 1965b, 18, 57-75.
- Miller, G.R. and Rokeach, M.: Individual differences and tolerance for inconsistency. In R.P. Abelson, et al., (Eds.), Theories of Cognitive Consistency: a sourcebook. Chicago: Rand McNally, 1968, pp. 624-632.
- Newcomb, T.M.: Interpersonal balance. In R.P. Abelson, et al. (Eds.), Theories of Cognitive Consistency: A sourcebook. Chicago: Rand McNally, 1968, pp. 28-51.
- Ohnmacht, F. W.: Effects of field independence and dogmatism on reversal and nonreversal shifts in concept formation. Perceptual and Motor Skills, 1966, 22, 491-497.

- Powell, F.A.: Open- and closed-mindedness and the ability to differentiate source and message. Journal of Abnormal and Social Psychology, 1962, 65, 61-64.
- Restle, F., Andrews, A., and Rokeach, M.: Differences between open- and closed- minded subjects on learning-set and oddity problems. Journal of Abnormal and Social Psychology, 1964, 68, 648-654.
- Rokeach, M.: The Open and Closed Mind. New York: Basic Books, 1960.
- Rosenberg, M. J.: When dissonance fails: on eliminating evaluation apprehension from attitude measurement. Journal of Personality and Social Psychology, 1965, 1, 28-42.
- Rosenthal, R. and Rosnow, R.L.: The volunteer subject. In R. Rosenthal and R.L. Rosnow (Eds.), Artifact in Behavioral Research. New York: Academic Press, 1969 pp. 59-118.
- Rudin, S.A. and Stagner, R.: Figure-ground phenomena in the perception of physical and social stimuli. Journal of Psychology, 1958, 45, 213-225.
- Schulman, G.I.: Asch conformity studies: Conformity to the experimenter and/or to the group? Sociometry 1967, 30, 26-40.
- Sherif, M.: The Psychology of Social Norms. New York: Harper, 1936.
- Sherif, M.: Conformity, deviation, norms, and group relations. In I. A. Berg and B. M. Bass (Eds.), Conformity and Deviation. New York: Harper, 1961, pp. 159-198.
- Siegel, S. Non-Parametric Statistics. New York: McGraw-Hill, 1956.
- Snyder, A.F., Mischel, W., and Lott, B.E.: Value information and conformity behavior. Journal of Personality 1960, 28, 333-341.
- Steiner, I.D.: Personality and the resolution of interpersonal disagreements. In B.A. Maher (Ed.), Progress in Experimental Personality Research. Volume 3. New York: Academic Press, 1967, pp. 195-239.
- Steiner, I.D. and Johnson, H.H.: Authoritarianism and conformity. Sociometry, 1963, 26, 21-34.

- Steiner, I.D. and Vannoy, J.S.: Personality correlates of two types of conformity behavior. Journal of Personality and Social Psychology, 1966, 4, 307-315.
- Taylor, H.F.: Balance, tension, and tension release in the two-person group. Human Relations, 1968, 21, 59-73.
- Thibaut, J. W. and Strickland, L.H.: Psychological set and social conformity. Journal of Personality, 1956, 25, 115-129.
- Thrasher, J. D.: Interpersonal relations and gradations of stimulus structure as factors in judgmental variation: an experimental approach. Sociometry, 1954, 17, 228-241.
- Vacchiano, R. B., Strauss, P. S., and Hochman, L.: The open and closed mind: a review of dogmatism. Psychological Bulletin, 1969, 71, 261-273.
- Walker, E.L. and Heyns, R.W.: An Anatomy for Conformity. Englewood Cliffs: Prentice Hall, 1962.
- Warren, D.I.: Power, visibility, and conformity in formal organizations. American Sociological Review, 1968, 33, 951-970.
- Wheeler, L.: Toward a theory of behavioral contagion. Psychological Review, 1966, 73, 179-192.
- Whittacker, J.O.: Parameters of social influence in the auto-kinetic situation. Sociometry, 1964, 27, 88-95.
- Wilkins, E. J. and deCharms, R.: Authoritarianism and response to power cues. Journal of Personality, 1962, 30, 439-457.
- Witkin, H.A.: Personality Through Perception. New York: Wiley, 1954.
- Witkin, H.A.: A cognitive-style approach to cross-cultural research. International Journal of Psychology, 1967, 2, 233-250.
- Witkin, H.A., Dyk, R.B., Faterson, H.F., Goodenough, D.R. and Karp, S.: Psychological Differentiation. New York: Wiley, 1962.
- Witkin, H.A., Goodenough, D.R. and Karp, S.A.: Stability of cognitive style from childhood to young adulthood. Journal of Personality and Social Psychology, 1967, 7, 291-300.

Wolfe, D. M. and Snoek, J.D.: A study of tensions and adjustment under role conflict. Journal of Social Issues 1962, 18, 102-121.

Wright, J.M. and Harvey, O.J.: Attitude change as a function of authoritarianism and punitiveness. Journal of Personality and Social Psychology, 1965, 1, 177-181.