© COPYRIGHT BY

MARK KELLY MACNEIL

1967

Downloaded from SHAREOK. Persistent Handle URL: https://hdl.handle.net/11244/2213

THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

POWER OF STATUS IN NORM FORMATION UNDER DIFFERING CONDITIONS OF GROUP SOLIDARITY

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

MARK KELLY MACNEIL

Norman, Oklahoma

1967

POWER OF STATUS IN NORM FORMATION UNDER DIFFERING CONDITIONS OF GROUP SOLIDARITY

APPROVED BY

William R. Hood

John A. Morris jr

W. B. Lemmon

Wm. E. Bittle

DISSERTATION COMMITTEE

ACKNOWLEDGMENTS

My tremendous debt and profound gratitude to Dr. Muzafer Sherif are too great to be satisfied merely by this formal admission of their existence. The entire conceptual basis for this study as well as ideas underlying the techniques utilized or developed originated in the work of this founder of scientific social psychology. The inspiration of his genius and dedication will continue for me long beyond my completion of this task.

The field and experimental research on which this study is based was not a one man job. There were people involved without whom this report could not have been made. My gratitude goes to Dr. James C. Jernigan, President of Texas College of Arts and Industries. His confidence and support were essential and were given in full. The financial support for this study was provided by Texas A. and I. research grants 449-15 and 449-M-66.

My friend, Dr. George E. Vaughan, Chairman of the Department of Psychology and Sociology, Texas A. and I., and the department faculty assisted in ways too numerous to list and went far beyond the requirements of professional courtesy and tolerance.

The field observers of the natural groups studied and the experimental

collaborators, whose skillful participation was essential, will not be named here. Their dedicated, persistent, and thorough work was time consuming and frequently frustrating to them. Their reward by way of increased knowledge of human behavior is greater than any I can grant them. Because they are continuing in their studies and observations, they are not named.

Research assistants Chuy Navarro and Roy Cronenberg are due special thanks. So also are the other students who contributed so unstintingly of time and work. Without them the experimental phases of this study would not have been possible.

The assistance of Albert Smith in developing the "shotgun situation" and the technological advice and assistance of Larry Pelton, Andy Finch, and Paul Snider is gratefully acknowledged.

My especial debt of gratitude is due to Dorothy J. Pace. Her contributions as research assistant, amanuensis, and encouragement over the two year period of this study were indispensable.

To my wife, Kathrine J. MacNeil, for her patience, understanding, encouragement, and help, I give my heartfelt thanks and appreciation.

For their patience, advice, and assistance I thank my committee. Especially my appreciation is extended to Dr. William Robert Hood.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
LIST OF FIGURES	vii
Chapter	
I. INTRODUCTION	1
II. PROBLEM AND HYPOTHESES	19
Hypotheses	33
Concerning Indoctrinated Member's Norm Persistence and Change	35
Concerning Group Norm Formation	36
III. METHOD	38
IV. RESULTS	53
Formation, Persistence, and Change of Individual Arbitrariness	57
Joint Effects of Solidarity and Status Arbitrariness on Group Norm Formation	64
V. SUMMARY AND DISCUSSION	85
Discussion of Experimental Results	87
Suggested Research	92
Resumé	95
REFERENCES	98
APPENDICES	103
A. Frequency Distributions of Indoctrinated Group Members in Indoctrination Sessions	104
B. Frequency Distributions of Group Member Judgments in Autokinetic and Shotgun Situations	112
C. Observer Report and Status Rating Forms and Solidarity Criteria	206

LIST OF TABLES

Table		Page
1.	Natural Norm Medians, Means, and Ranges for Autokinetic and Shotgun Judgment Situations	55
2.	Percent of Judgments Within Prescribed Range for Indoctrination, First, and Overall Group Sessions of Low Solidarity Groups	59
3.	Percent of Judgments Within Prescribed Range for Indoctrination, First, and Overall Group Sessions of High Solidarity Groups	60
4.	Contingency Table for Solidarity and Status--Frequencies of Judgments Above and Below Overall Median	68
5.	Low Solid Group Conformity to Prescribed Arbitrary Norm--Group Percentages Within by Sessions	69
6.	High Solid Group Conformity to Prescribed Arbitrary Norm--Group Percentages Within by Sessions	70
7.	Comparison of Conformity Measures--Percent of Group Norm Judgments Within the Prescribed Arbitrary Norm Range	73
8.	Means of Group Sessions with a High Status Member Indoctrinated with a Prescribed Norm.	74
9.	Means of Group Sessions with a Low Status Member Indoctrinated with a Prescribed Norm.	75
10.	Medians of Group Sessions with a High Status Member Indoctrinated with a Prescribed Norm.	76
11.	Medians of Group Sessions with a Low Status Member Indoctrinated with a Prescribed Norm.	77
12.	Comparison of Means of Group Norms Formed Under Conditions of High and Low Group Solidarity with High and Low Status Introduced Arbitrariness	80

LIST OF FIGURES

Figure		Page
1.	Shotgun moving target apparatus for judgment situation. .	42
2.	Shotgun judgment task range area	43
3.	Rabbit outline target used in shotgun judgment task situation	45
4.	Autokinetic judgment situation room.	47
5.	Percent of judgments within prescribed arbitrary norm of high and low solidarity groups	61
6.	Percentages of judgments within prescribed arbitrary norm of low solidarity groups	71
7.	Percentages of judgments within prescribed arbitrary norm of high solidarity groups.	72
8.	Weighted means of high and low solidarity groups with high and low status arbitrariness in norm formation . . .	78
9.	Average medians of high and low solidarity groups with high and low status arbitrariness in norm formation . . .	79

POWER OF STATUS IN NORM FORMATION UNDER DIFFERING CONDITIONS OF GROUP SOLIDARITY

CHAPTER I

INTRODUCTION

The purpose of this research is the study of experimental social norms established by natural-groups. In experimental judgment situations, differences in group solidarity and the status of a member presenting arbitrary judgments provide the experimentally varied conditions for norm formation. Group solidarity and status positions of natural-group members are determined from intensive study of groups in their natural settings, by non-participant observers over extended periods of time. Formation and change of the experimentally formed norms are tudied as either a high or low status position member gives judgments which are, unknown to him, in conformity to a previously internalized, experimenter-prescribed, indoctrination norm which is arbitrary for the experimental judgment situation.

Arbitrariness of the prescribed norm consists of a mode and a range of judgments that diverge from those of norms that emerge in the course of intragroup interaction, in the same situation, without

experimenter manipulation. The latter norm, established without imposition of a member who is conforming to prescribed judgments, is labeled the natural norm. The mode and range of the natural norm are used as a base line to evaluate the joint effect of group solidarity and the status position of the member introducing the arbitrary norm (Jacobs & Campbell, 1961; MacNeil, 1964).

In every human group, there are norms, i.e., standardized ways of seeing and doing things, for the expected modes of behavior for individual members. These norms form through the interpersonal interaction among the members of the group in regard to the object of the particular norm. Individual needs, and past experiences, in similar or related areas, lead to the introduction, by each member, of suggestions, opinions, and ways of seeing and doing things which differ to some degree. The range of ideas as to what behavior is appropriate, adaptive, and fitting for a new situation is therefore likely to be relatively wide during initial reactions to a new situation.

Over the period of intragroup, interpersonal interaction, during which a group norm forms, the various expressed ideas or differing pertinent behavior demonstrate the group's range of perceptual-behavioral alternatives. The focus of individuals' behaviors defines the mode, and the range of behaviors defines the latitude of the emerging norm. As the norm forms, the more variant behaviors (verbal or non-verbal) tend to become less frequent or even entirely disappear. The modal aspect of

the norm and the related acceptable range become clearer in terms of observable behavior (Sherif, 1935; Sherif & Sherif, 1956).

In all situations which are not structured, which permit alternatives, all interacting individuals, regardless of their status positions in the group, are influenced, to some degree, by the pertinent behavior of all other members. In real-life groups which are highly important to the members, however, the behavior of each individual member does not have equal weight in determining the nature of a group norm. The degree of the relative influence of a group member in a specific status classification appears to be determined, to a large extent, by the solidarity of the group (Sherif, Harvey, White, Hood, & Sherif, 1961; Sherif & Sherif, 1964; Whyte, 1943).

The different weight of individual opinions, and the related formation and changes of individual perceptions of situations in the course of interpersonal interaction during group norm formation, is evident in real life. Personality characteristics, expressed in terms of individualistic labels such as "leadership" imply that some persons have personality traits and abilities which give them power to control others. Such crucial traits of leaders, personality factors that would assure, per se, that others see things in a particular way, fail as variables enabling across-situation predictions of individual power in the course of group norm formation. Leadership, operationally defined as the relative power of an individual in determining the nature of an emerging social norm, is

situational (Bird, 1950; Cartwright & Zander, 1953; Gibb, 1954; Gouldner, 1950; Sanford, 1952; Sherif & Sherif, 1956).

Situational factors of particular concern in studying the relative power of individual members of a group in norm formation include: (1) the nature of the physical and social stimulus situation in respect to which the norm is forming, (2) the arbitrariness of existing or proposed solutions generally related, or specific, to the situation, and (3) the status relations of the individual group members involved. The principal aspect of the stimulus situation is its degree of structure, i. e., the likelihood of the individuals involved to perceive alternatives.

Social factors, such as the established status relations among group members--the group status hierarchy considered in its totality as a group property--are external to a particular individual group member. Such social factors, properly referred to in sociological terms as "group structures" and "status hierarchies," exist, at the psychological level of analysis, as "reciprocal expectancies." These expectancies are internal attitudes and form social reference scales for the individuals. As such, for each individual, reciprocal expectancies are relatively persistent internal factors jointly interacting with other pertinent internal and external factors to determine each individual's psychological structuring, i. e., perception, of a social stimulus situation.

When either physical or social stimulus complexes, classified as external to the individual, are unstructured, i. e., ambiguous, they permit,

at least to some degree, alternative interpretation. When such an unstructured social stimulus situation exists, internal factors, and thus internalized social factors, such as values and expectations regarding other persons, have great weight in determining the perception of the situation and consequently the development of group social norms related to it (Sherif & Sherif, 1956).

Reciprocal expectancies are part of the social normative structure of the group. They are internalized evaluations of one's own--as well as others'--probable contribution toward group goals. Since these expectancies place each member in regard to his expected contribution toward attainment of group goals, they predetermine, to a great extent, the relative weight of each member's contribution. Such expectancies are sine qua non of group structure (Bass & Wurster, 1953; Carter, 1953; Haythorn, 1953; Hurwitz, Zander, & Hymovitch, 1953; Mauldin, 1945; Roseborough, 1953; Sherif & Sherif, 1956; Whyte, 1943).

In this study experimental norms are established without the high motivational basis which exists for norms formed in these same natural-groups in every day situations. Although doing well is important, the judgment situations as they are used in this study are not per se highly ego-involving to the members of natural groups of teen-age boys. The reputation of the group in an activity which is highly important to the members is not at stake. The loss or gain of a highly desired group goal is not involved. Skill in the judgment situation, therefore, is not

perceived by the subjects as highly important. However, the subject is motivated to do well in the presence of his fellow group members and to resolve the uncertainties he feels in the situation. Motivation is further implemented by his desire for his group to do at least as well as, or better than, other groups.

The method used in this study to generate a moderate degree of ego-involvement is offered as a small step forward toward the goal of analysis of norm formation and change under conditions which involve real groups in situations which are highly important to them. The "shotgun judgment" situation developed in the course of this study is, hopefully, the first of a series of methods to be developed which may be utilized in highly meaningful norm formation situations for teen-age groups.

Some Relevant Observations of the Joint Effect of Solidarity and Status on Group Norms. The writer witnessed the imposition of a mildly arbitrary social norm on a solid formal group when the commanding general of a large military post in Oklahoma unexpectedly wore, the then new, cotton shorts and short sleeved shirt uniform on duty. The wearing of this uniform was, and remains, entirely optional with the individual. The staff which had been outspoken in ridiculing the "short panted" uniform a few days previously, quickly adopted the abbreviated costume. Hot weather and the real coolness of the new uniform contributed to make effective the general's unspoken endorsement of the societally (at that time) variant garb.

The history of military operations is replete with instances in

which the advice of better informed but inferior status members of a staff were ignored to disastrous ends. Washington's and other colonials' ignored advice to Braddock's European experienced and close knit staff in regard to appropriate tactical deployment in the French and Indian War is a classic example (Cleland, 1955; Freeman, 1948; Ketchum, 1960; Tuchman, 1962). Recently Janowitz (1964) states that trend analysis of service journals confirms the small role of junior army officers as agents of policy change. Janowitz points out that the journals, in this matter, reflect organizational reality.

Turkish prisoners of war (POWs) in Korea were for the most part captured together as members of small units of high solidarity. The men in these groups had been together for long periods of time before entering combat and capture. Turkish group and military normative patterns, especially those of status rank, remained intact over several years of persistent efforts by their captors to disrupt them. So effective was the Turkish small unit solidarity that none of the 229 Turkish prisoners died in a POW camp although over half were wounded when captured.

The high solidarity of the Turkish units is reflected in their continued refusal to obey any order not relayed through their group leader, even though he was a private following removal of higher ranks. Even the scant food ration was refused unless issued to and distributed by a detail assigned by the unit leader.

Of the American Army prisoners of war in Korea, two-thirds were

captured in the first six months of the war. Improvised combat units, formed from individuals on constabulary duty in Japan, had been hastily thrown into combat. These men showed little adherence to group, patriotic, or military norms with only a few individual exceptions. Thirty-eight percent of the American Army soldiers who were prisoners of war in Korea died. Death was very often related to a failure of the members of small groups of POWs to care for each other.

Review of reported incidents occurring early in the period of captivity indicate clearly that the American soldier POWs had no solid groups with firm status structure for normative behavior referents. American soldiers showed their lack of having internalized status rank and expected reciprocities, i. e., group norms, by striking their American military superiors when the healthy were ordered by these superiors to assist their sick and wounded comrades (Kinkead, 1959). Removal of emergent leaders by the captors left non-solid bunches of men functioning on an "every man for himself" basis.

United States Marines captured in Korea had entered combat in units which had trained as units for relatively long periods of time. Thirteen percent of the Marines in Korean war prisoner camps died.

Turks, American Army, and Marine POWs were dealt with more or less similarly by their captors. Hardships and opportunities to survive through concerted small group efforts were generally equal.

Torrance (1965) reports that when military air crews had been a

unit for several months, individual influence in four experimental problem solving situations followed the military rank structure. In temporary experimental crews, "any member who had the correct answer was likely to influence the group regardless of his position. . . ." In permanent crews, 93.7% of the members expressed concern with keeping the crew together whereas in temporary crews, only 71.8% were so concerned according to post-problem questionnaires. In all problem situations, it is reported that the temporary crews showed "less rigid . . . more practically oriented thinking" (Hare, 1962, pp. 112-114). In the crews utilized by Torrance, military rank and related formal group status power was the same in both permanent and temporary crews. The difference in crew and individual performance appears to have resulted from the high group solidarity of the permanent crews and the relatively lower solidarity in the temporary crews which had not had the opportunity to form group normative patterns through repeated interpersonal interactions.

Whyte (1943) writes of two high status members of a highly solid natural group, the Nortons, successfully changing the group behavior in regard to association with the girls in the "Aphrodite Club." Objections to the girls' being included in the Saturday night bowling were focused on "Doc," the leader, by the two high status members, "Danny" and "Mike." Over a series of intragroup interactions initiated by Danny and Mike, the bowling habits of the boys shifted. "Saturday night became men's night once more. . ." (Whyte, 1943, p. 32).

The history of the Italian Community Club, a low solidarity group, shows numerous instances of members of various status rank attempting to impose ideas on the other members. Although elected formal leader, and also, in fact, the informal group leader in terms of effective initiative, "Chick" was constantly frustrated in his efforts by counterproposals and resistance by lower status members. "Tom" persisted in writing the club minutes in a form to which Chick objected but which the other members appreciated and found amusing. "Jim," a low status member, when removed by Chick from the judiciary committee, nearly succeeded in impeaching Chick. Although Chick's ideas were frequently formally accepted, there was a lack of support in carrying them out. The suggestions of low status members were adopted and carried out at least as enthusiastically as were Chick's suggestions. The low solidarity of the group is exemplified by the members' frequent absence from meetings and their tendency to leave the club after short periods of membership (Whyte, 1943).

Yablonski (1962) was able to establish direct contact with an emerging group, the Balkans, while it was in a formative state and still possessed low solidarity. His entre to the group through a then low status member ("Nicky") was condoned by "Duke," the emerging leader, and the other group members. Circumstances were such that they perceived Yablonski as a helpful ally in their troubles with the authorities. Although seen by the boys, in time, as a non-threatening adult, Yablonski was increasingly ineffective in influencing important group decisions as group

solidarity increased despite his access to highly desirable facilities for the boys. Duke, on the other hand, acquired increasingly greater power in determining group behavior although he was restricted in this respect by group norms in specific areas after these norms firmly formed.

In his efforts to influence a well established group, the Villains, Yablonski's suggestions received no support unless "Blackie," the leader, "gave the O. K." (Yablonski, 1962, p. 58). In his efforts to interest the Villains in weight lifting, no progress was made until "Blackie discovered he could lift as much weight as anyone else. This sold the project" (Yablonski, 1962, p. 58).

Barnett (1953) writes that the character of the Shaker movement among the Indians of the Northwest resulted in a lack of decisive and impressive leadership. The churches were not solid social units.

> There is an almost total lack of restraint upon individual interpretations of tenet and ritual. Anyone may introduce a change under the sanction of an intuitive demand called a "gift". . . . One Yakima man now living is responsible for at least seven innovations concerning belief and ritual that have been accepted by other members of the church (pp. 70, 71).

Frontiers and boom-towns frequently present clear examples of social conditions in which systems of established status hierarchies and traditional controls are absent. Men, under such circumstances--in gold rushes, in oil boom-towns, in land rushes--take control into their own hands. They devise ways of getting along as best they can with others of diverse backgrounds and cultures. The social status of an innovator

is not as critical to the acceptance of his idea as its apparent practicality under these conditions of low social solidarity (Buchanan & Dale, 1924; Sherif & Sherif, 1956; Webb, 1935).

The Zuni veteran of World War II returned to a highly solid Pueblo village. As a young, low status, member of the village, his service-acquired attitudes, ideas, and technological knowledge were completely unaccepted by the highly solid Indian society. In the tight-knit Pueblo, innovators who persisted to the point of nonconformity were forced to leave the village (Adair, 1955).

The Navaho veteran returned to a relatively less solid society. This tribe has generally been more receptive than the Zuni to new ways of doing things. The Navaho veteran, unlike the Zuni veteran, apparently did gain some prestige in the community because he had fought in the war. The Navahos, within the limits imposed by economic and geographical resources, are showing a marked receptivity to items of "American" technology and material culture. This includes a veteran-initiated enthusiasm for farm machinery in contrast to the resistance to such innovations found in the Pueblo (Vogt, 1955).

Observation of the Lake City religious cult, which called themselves the "Inner Circle," reported by Festinger, Riecken, and Schachter (1956), showed numerous indications of the cult's being a less solid group than the "True Word" cult observed and described by Hardyck and Braden (1962). In each cult, when their prophecy of world catastrophe failed to

be fulfilled, the leaders suggested that they had been tested and found worthy. In the highly solid "True Word" cult, faith and group solidarity remained unshaken and the cult continued to exist relatively unaffected. In the less solid "Inner Circle" cult the faith of the nucleus, those in close proximity to the leader, apparently remained strong, although there were major shifts in the group status structure and several members left the group. Under community pressure this cult soon disbanded despite efforts to proselyte and retain unity.

Technological improvements in industry, agriculture, communications, and home facilities have brought about possibilities for changes in living conditions for large segments of the world's population. Economic relationships, political controls and affiliations, concurrently, may change in ways favorable for the mass of people currently living in extreme deprivation in both industrialized and underdeveloped areas. Overpopulation and lack of adequate food production remain problems of extreme urgency in some areas. Inadequate labor forces of specific kinds, inappropriate location of labor forces, and labor forces inappropriately trained for current needs preclude equitable opportunities for contributing toward, and sharing in, national and world production. Taking advantage of these opportunities and solving these problems involves changing existing norms and forming new norms.

Many cultural norms and values are arbitrary, to varying degrees, for present socio-economic conditions. Despite such norms being non-

adaptive and prohibiting the adoption of changes essential for the improvement of conditions, they persist and are passed down through generations of culture. The foremost agencies for the perpetuation of norms are the primary social groups. The family, and other reference groups, are highly involved in the enculturation and indoctrination process in which individual attitudes and values are developed. The need for the social scientist to understand the interrelation of critical group factors pertinent to changes and innovations in group norms, and the related formation and changes of individual values, is apparent. The social psychologist, if he is to study individual experience and behavior in relation to social stimulus situations, needs to learn the interrelations of such stimulus factors as group status position, group solidarity, and arbitrariness. To meet these needs, to contribute to an understanding of human behavior, requires the development of reliable methods of experimentally studying the effect of imposed arbitrariness by group members holding specific status positions in groups of differing degrees of solidarity.

The examples of norm change given above involve to varying degrees the factors of innovator status, group solidarity, and arbitrariness of the suggested, and related existing, normative behavior. The relative weight of each of these factors in real life norm formation situations is difficult to ascertain.

Therefore, the research task is to create in the laboratory

conditions of known arbitrariness relative to the stimuli to which the norms apply. This condition of arbitrariness must be internalized by an experimenter-designated member of known status in a natural group that has been previously identified as to its degree of solidarity. We may then, during group judgment sessions which include the indoctrinated member, study the joint effect of group solidarity and status position power in norm formation. Since the effect of both high and low status indoctrinated members' arbitrary judgments in the same group must be compared, two relatively comparable, yet non-confounding, judgment situations are required. Before making explicit the experimental conditions to be employed, some pertinent investigations of experimental norm formations and natural group studies will be considered.

Field Studies of Natural Groups. The objective in using an observer in the study of a natural group is to obtain accurate and reliable information concerning the group, without disruption of the process of social interaction, as the members go about their everyday activities in their customary environment. The major focus in early studies utilizing observers was on formal, rather than functional, behavior. Primary concern was with specific physical acts, such as touching and pushing, by individuals. Such behavior by individuals was not related to group activities as such. Reliability of observation was first stressed by Thomas (1933) when she compared the observations of several observers for the same periods of interaction. The trend in the use of observers has been

away from the earlier methods in which all possible behavior was objectively reported, toward the reporting of only pre-designated kinds of behavior and permitting observer inferences concerning motives and feelings (Heyns & Lippitt, 1954).

In psychophysical studies, under optimal conditions, ordinal judgments are more accurate than those made on an absolute scale. Objects are best compared when presented together in time and space. Applying this knowledge to the observation of groups, it is evident that an observer can best judge the relative behavior of group members, along a given behavior dimension, as the behavior occurs in a relatively short period of time. The observed effective initiative of group members in regard to a proposed or executed specific group activity provides a reasonably defined time-interaction period, as well as a clear base line to which the behavior of all interacting members may be related, for the purpose of comparison.

Natural groups do not lend themselves to observation by several observers over repeated series of similar interactions. Long periods of time are required to have even one observer obtain the confidence and acceptance necessary to observe closely and frequently even the most overt behavior of natural groups. In his study of the Nortons, Whyte required over a year to become familiar with the neighborhood and its general social structure. It is highly desirable, even essential, that an observer fit the group he is to observe. The matching of observer to

group involves ethnic, socio-economic, age, physical characteristics, and language factors. When the observer matches the group in these areas, the time required for his acceptance as a non-threatening person may be appreciably reduced.

Whyte, 1943, writes in his preface:

> This book is a report upon a three-and-a-half year study of "Cornerville" . . . . My first problem was to establish myself as a participant in the society so that I would have a position from which to observe. I began by going to live in Cornerville, finding a room with an Italian family . . . . I began studying Italian . . . . I lived eighteen months with the Italian family (p. v).

Later Whyte moved, with his wife, into a flat in "Cornerville" where he lived for the remaining year-and-a-half of the study.

The use of observers who already fit the social environment in which the group lives reduces some of the time required for gaining acceptance. The use of such observers also reduces, to some extent, the necessity for the observer to participate in the activities of the group which he is observing. As a person who appears to belong in the neighborhood, only a casual explanation as to why he is around the places the group frequents is required. An apparent "pool-shark," obviously of similar ethnic and socio-economic background as everyone else in the place, is not asked his reasons for being in the pool halls where the group he is observing hangs out. If he can also provide a car, or sporting equipment, which the group sees as desirable for their purposes, he is very likely to be approached by members of the group and sounded out as

to his willingness to share the use of these items. In the relatively short time of a month or so, the observer may be viewed as trustworthy to the point of being invited to group activities which do not take place in public places.

CHAPTER II

PROBLEM AND HYPOTHESES

The problem is to study the formation of norms, established experimentally, by natural groups of known levels of solidarity, in which arbitrary solutions are presented by high, or low, status members. The formation of norms takes place over time as individual group members interact with one another, and must, therefore, be studied in this context. To insure that the research controlled factors of status position and solidarity are the crucial factors in norm formation, the experimentally introduced factor of status related judgment arbitrariness must be as consistent as possible throughout the norm formation for all groups. It is necessary to ascertain what norms form under identical circumstances without arbitrary intervention by research procedure. In addition, that degree of arbitrariness which may be realistically imposed by a selected status position member must be determined.

To create arbitrary conditions under which group norms may form in an experiment requires an estimation of a range and mode of behavior typical for the prevailing stimulus conditions. Such a range and mode established without experimentally introduced influence may be considered

a natural norm (relatively nonarbitrary) for the individuals and the conditions. These natural norms provide a base line, or control conditions, against which norms formed under more arbitrary conditions may be compared.

Degree of arbitrariness may be defined in terms of discrepancy from the natural norm. This definition is appropriate for both the focus and latitude of either an individual or a group norm, i.e., the judgment distribution of individual members, or of a group.

To assess persistence or change of individual and group norms during experimental norm formation, we must follow the interpersonal interaction through a sufficiently extensive period to assure stabilization of the convergence of individual modes which locate the focus of the group norm. An experimental design is required which permits group members to interact in response to stimuli that allow determinable ranges of perceptual alternatives. In addition, such a design must allow experimenter-selected members to introduce judgments during experimental group norm formation which are, to a prescribed degree, arbitrary as to mode and range for the judgment conditions. No design which is practically appropriate for the purposes of this research has been published. However, potential structural components for such a design exist in several previous studies, summaries of which were made in Chapter I.

Sherif (1935) demonstrated the feasibility of using the autokinetic situation for quantified study of the formation of experimental group

norms. This work also investigated the effect of suggestion on perception of autokinetic movement. Bovard (1948) showed that planted experimenter assistants enable influencing the nature of a group norm in the autokinetic situation. That it is possible to introduce an experimental individual standardization which persists following the removal of the standard was experimentally demonstrated by Hood and Sherif (1962). MacNeil (1964), developing the nonconclusive work of Jacobs and Campbell (1961), demonstrated the feasibility of imposing on an experimental group an experimenter-prescribed arbitrary norm through the use of plants during the initial enculturation of naive group members.

Harvey and Consalvi (1960) investigated the differential influence of informal group status positions during norm formation incidental to their study of the influencibility of group status position members under group pressure. An experimental judgment situation was devised in which a predesignated status position member could be presented a stimulus which differed greatly in the attribute judged (distance between two, 4 sec. duration, simultaneous, light flashes) from the stimulus presented other members at the same time. The experimental design employed precluded any clear-cut evidence as to the relative power of informal group status positions. Prior to the introduction of arbitrary judgments by specific status position members responding to 48"-apart stimulus lights in a dark room, firm individual norms had formed during 50 judgments, by all group members, to a relatively structured 12"-apart

set of stimulus lights. The 12"-apart set continued to be the non-arbitrary stimulus for the rest of the group during the presentation of 48"-apart stimulus related arbitrary judgment. Even so, there was a distinct difference in the shifts of the group which took place when the leader was giving extremely arbitrary judgments in response to the 48"-apart stimulus set, and when the low status member was doing so.

When the teen-age boy, who is our subject in this study, seeks structure in a novel situation, his curiosity, suspiciousness, and inquisitiveness quickly lead him to overt investigation when noticeably different responses to a stimulus occur. In previous studies and during pretesting in the present study, it was noted that when one subject gave deviant judgments in the autokinetic situation the boys frequently asked aloud "Are we all seeing the same thing?" On several such occasions, despite researcher assurances, the boys placed their heads next to the deviant's to assure themselves that they were not looking at different stimuli. Unresolved suspicions as to the common object of their judgments would block meaningful interpersonal interaction leading to individually internalized group norms.

Realistically, if we are to study, experimentally, behavioral phenomena similar to those encountered in social situations, we must deal with perceptual differences among individuals interacting in regard to the same external situation.

It is necessary, therefore, that the group member holding a

particular status position, the norm formation power of which we are to study, enters the experimental norm formation situation with an internalized personal standardization, i. e., individual norm, for the judgment stimuli. This individual norm must: (1) differ from the natural norm for the conditions to a distinct degree, yet, (2) be only moderately arbitrary. In addition, it must be experimentally practical for the experimenter to indoctrinate the desired group member with the prescribed arbitrary norm in a manner which will assure its persistence and under circumstances which will not arouse suspicions of experimental manipulation. This involves the participation of the desired member in an indoctrination session at a set time prior to the group norm formation session.

Even in the highly unstructured autokinetic situation, under constant stimulus conditions, there are limits beyond which perception of extent of movement can not be shifted by prestige, majority opinion, or other persuasion. Shifts which are effected away from the natural mode and range result in an increased latitude of a resulting norm. Under realistic conditions of enculturation, norms which are moderately arbitrary for the conditions may form and persist. Attempts to establish norms under extreme arbitrary conditions, of either modal location or range, either fail completely or result in rapid shifts toward the natural norm (Jacobs & Campbell, 1961; MacNeil, 1964).

To study the effect of aribtrary suggestion by both high and low status position members in the same group, two comparable yet non-confounding

norm formation situations must be available for each group studied. Because of its suitability for the study of social factors involved in norm formation, the autokinetic situation is well suited for use as one of the needed judgment tasks. The second norm formation task was developed in the course of this study. The task required the possibility of being judged in regard to an attribute which permitted variation in the judgments of different individuals making judgments at the same time, as well as differences in judgments made by the same individual at different times. In other words, a task analogous to judging the distance of autokinetic movement was needed.

In addition to the judgment nature of the stimulus, the experimenter had to be able to present the selected task as part of an experiment which has an overtly manifest reason for being done which is not associated with the study of social processes. For example, the autokinetic judgment task lends itself to being explained in terms of investigating "how accurately people can judge the distance a light moves in the dark." Even natural groups can be brought into the autokinetic situation without arousing suspicions that the group is being studied by presenting the experiment as one "investigating how accurately people who are together a lot, such as aircraft crews and spacecraft crews, can judge distance of movement." Since the autokinetic situation obviously lent itself to the purposes of this study, it would be best if the second situation were explainable in a way which matched the explanation used for the autokinetic situation judgments.

Finally, a task was desirable which would appeal to the average American teen-age boy. After extensive pretesting, with both experimental and natural groups, a shotgun shooting and target judging task concerning the number of shot holes in tachistoscopically presented views of mock targets was developed.

Munsterberg in 1914 used a large number of dots on a contrasting background as an ambiguous judgment stimulus (Murphy & Murphy, 1931). Such a stimulus, when presented to subjects for a short period of time which precludes counting, provides a physical stimulus in regard to which individual judgments are subject to the influence of social factors present in the situation (Kaufman, Lord, Reese, & Volkmann, 1949; Koslin, 1963; Pollis, 1964). As with judgments of distance of autokinetic movement, estimations of the number of dots present in a series of stimuli may be analyzed as quantified individual and group norms. The same factors which allow manipulation of emerging norms in the autokinetic situation (prestige, majority opinion, etc.) are likewise effective in "dot" stimulus judging situations.

The similarity of a large number of randomly placed dots on a contrasting background to the pattern made by shotgun shot-holes is apparent. The use of shotgun shot-patterns as judgment stimuli provides a reasonable explanation to naive subjects for the random variation of the patterns and the varied yet limited range of the apparent number of holes from stimulus to stimulus, i.e., from target to target. There is also an

obvious opportunity, when teen-age boys are the subjects, to have a far greater than customary interest, eagerness to participate, and ego-involvement in this psychophysical-like judgment situation. This is especially so when the subjects actually shoot to "make the targets" they believe they are judging. Judgments are actually made of experimenter prepared "mock-targets." This is necessary because, although the judgments are made to stimuli which are randomly patterned, the stimuli must be uniform as to the number and density of dots on each (Volkmann, Hunt, & McGourty, 1940). Even with a shotgun, the shooting skill of the teen-ager is not, alas, sufficiently consistent.

The use of "plants" (instructed assistants) in the guise of subjects, participating with a naive subject in the task of making judgments of apparent distance of light movement in the autokinetic situation, or judging the number of shot holes in a tachistoscopically presented shotgun target, provides a means of imposing status-related arbitrary judgments during norm formation. A group member, selected by the experimenter on the basis of status-position, when a naive subject, over time and repeated interaction with a planted majority, internalizes the prescribed, arbitrary, range and mode of judgments. Later, with his group in the same judgment tasks, such an indoctrinated subject will present, as his own, the prescribed range and mode.

The effort to measure the solidarity (cohesiveness) of a group has been marked by failures to find adequate correlations among the various

measures employed (Eisman, 1959; Gross & Martin, 1952; Kitawaki, 1956). These measures of solidarity were primarily obtained by presenting direct questionnaires and rating scales to group members. The questionnaires and scales requested the individual to indicate how much they liked or disliked other group members (Lott & Lott, 1961); the degree of liking for the group (Gross & Martin, 1952); the degree of enjoyment in being in the group (Cattell, Saunders, & Stice, 1953; Gruen, 1965).

The emotional feelings of individuals are difficult to compare, rank, or measure meaningfully. Group solidarity measures based on different groups' members' stated feelings of liking for their particular group do not readily lend themselves to quantification or comparison. To structure a group in terms of the members' respective popularity, and then define the group's solidarity in terms of the relative popularity among members, again fails to provide an adequate measure by which prediction of the effectiveness of the group in goal attainment may be made.

Solidarity descriptions, realistically, should predict the effectiveness of the group functioning under internal and external stresses and the nature of the functional group structure. The "liking" of group members for each other, and the group, is only a small part of the great number of factors involved. "Liking" may reflect, to some extent, that self needs, meaningful individual goals, are fulfilled in and through the group. However, some ego-needs, must at least occasionally be met by interaction with, and the aid of, persons disliked at the time.

Group structure, determined sociometrically on the basis of popularity, does not necessarily correlate highly with structure determined on the basis of effective initiative. Effective initiative, measured by either long term recorded observation of the detailed interpersonal interaction among members related to group activities, or indirect sociometric questioning of members in regard to the effective contributions of members toward group activities (Sherif & Sherif, 1964) is a more valid measure of the effectiveness of the group, and therefore its satisfaction of needs, in specific or varied stiuations. Certainly structure may be operationally defined in terms of an individual member's relative popularity, or the degree of liking members express for the group. It is the functional validity of such measurement which has not been objectively supported to date.

Some of the objective indicants of group solidarity listed by Sherif and Sherif (1964) are the time spent together by group members and the obstacles overcome in the course of being together. The obstacles are, in part, the distance members without cars have to walk to the common group assembly area, family objection, etc. These factors may be empirically determined by direct observation and thus serve as a means of operationally defining group solidarity. The shortcoming of such procedures is that long periods of detailed observation are required to obtain the basic data.

Sherif and Sherif (1964) studied groups in detail over periods of

three to seven months or longer. This detailed, long time, observation was essential in determining the basic properties of groups, their status hierarchy, and solidarity. These methods establish reliable procedure for studying groups and provide a means by which the validity of other methods may be checked. It, therefore, seems possible to develop more expeditious means of attaining these ends.

Group solidarity consists of two inter-related aspects of group function and structure: (1) the reliability of the reciprocal expectancies of group members in differing situations, and (2) the relative linearity of the hierarchical status structure. The dimension of groupness labeled "solidarity" is formed through the interaction among individuals over repeated mutual efforts in the attainment of a variety of common goals.

When, consciously or unconsciously, each group member's contribution to the attainment of common goals and individual satisfaction is consistently perceived, more or less, in a ranked order, i.e., expectancies are relatively fixed, a group structure may be said to exist. The more this ordering of expectancies is consistent over a variety of situations, and the more the expectancies generalize to situations not commonly encountered, the greater the existing group solidarity.

Solidarity, then, is an objectively determinable attribute of groups. It reflects, and is reflected in, the individual attitudes of each group member toward other members and himself, in regard to contributional

Group structure, or the status hierarchy of a group, is determinable by observing which members are predominant in initiating activities, finalizing decisions, and terminally receiving suggestions, or other communications, in the course of interaction toward group goal attainment. It is the informal, i.e., natural, group's equivalent of the military chain of command or industry's organizational chart.

In the process of group formation there is a developmental continuum from togetherness situations, in which intragroup status relations--and other group normative properties--do not exist, to groupness. The emergence of social norms, formed in the course of interaction among individuals working toward common goal achievement, mark the emergence of a group. These norms, common ways of doing and seeing things, include the reciprocal expectancies among the members and in turn permit the description of the group in terms of status structure.

Solidarity is a property of status structure and its functional generality. It provides a means of defining the firmness, consistency, and the relative weight of the group structure in determining the behavior of the members, and therefore, the behavior of the group. Since individual behavior and psychological experience form a unity--experience must be inferred from behavior--determination in perceptual judgment situations of the relative weight of the opinions, i.e., power, of individuals who hold known status positions provides a measure of group solidarity. Conversely, when solidarity is known, the relative power of a given group

member, if his status position is also known, is predictable.

When the norm formation situation otherwise permits alternatives, the relative power of each member, in determining the nature of the emerging norm, will be a joint function of group solidarity and status position. Given a high solidarity group, each member's power will be in direct relation to his status position. The expressed opinions, judgments, and evaluations of the leader will, up to a point determined by the structural nature of the situation, determine to a great extent the nature of the norm both in terms of its mode and the tolerated range of variation accepted by the group in relation to the norm. Divergent opinions of low status members during norm formation will have relatively less effect and a low status member's perception and his related behavior regarding the situation will shift to conform to the emerging norm.

When group solidarity is low, a member's power in norm formation will not differ as greatly as a function of status position. Situational factors, such as a member's previous experience in the same, or generally similar situations, will have relatively greater weight. A low status member's aggressive and persistent statement of opinion, in keeping with efforts to gain status, will increase his power in determing the emerging norm. In the high solidarity group such impudence is either ignored or actively subdued by the group.

Sherif and Sherif (1964, p. 3), referring to person-to-person interaction related to "individual urges and self-pictures to be fulfilled as

these provide characteristic goal directedness in what the individuals talk about and do," state

> For this purpose, the interactions of adolescents are particularly appropriate. The period is one of throbbing existence in a changing and maturing body, with the image of full-fledged adult man or woman dramatically in the making, as the transition from childhood is made in a social setting itself in the process of change (Sherif & Sherif, 1964, p. 3).

These same authors, referring to their choice of groups consisting of adolescent boys for the study of the directive role of groups in defining the individual's self-identity, write

> We deliberately chose to study this age level and voluntary group formations therein because they dramatize the binding effect of being a member in regulating one's self-conception and behavior. Adolescent group formations are usually of relatively short duration, on the order of a few years. From the viewpoint of our problem, we could just as well have chosen voluntary group formations during a more mature age level which are more lasting (Sherif & Sherif, 1964, p. 248).

Because many of the pressing psychological needs of adolescents are satisfied through the informal groups to which they voluntarily belong, i. e., their reference groups (Sherif & Sherif, 1964), such groups provide ideal means for the study of the effects of interpersonal interaction and relationships in regard to group norm formation. Although reference groups are not limited to informal teen-age groups, such teen-age groups present the researchers an opportunity to obtain a relatively clearer picture of individual status as reflected by reciprocal expectancies, effective initiative, and other indications of group structure.

This is to a great extent true due to the methods and techniques

developed by the Sherifs for the study of such groups.

The status positions of members of informal groups at a given time must be determined by a continuing close study of each group. While not attempting in the present research to study each group to the detailed extent accomplished by Sherif and Sherif (1964), the methods developed by those investigators were deemed appropriate. Informal, natural groups by their very nature will not appropriately respond to direct questionnaires, overtly solicited sociograms, or other obvious status measurement procedures. This is particularly true for informal groups of teen-age boys. While informal groups are not restricted to those consisting of teen-age boys the relative accessibility of groups of this age and their greater susceptibility to being enticed into an experimental judgment situation by the promise of pay for "a little easy work" and the attraction of doing "something different" make them especially fitting for this study.

Hypotheses

On the basis of the cultural evidence, the experimental findings, and the theoretical implications briefly presented in the previous pages, hypotheses are advanced concerning the formation of experimental norms in judgments of extent of autokinetic movement and judgments of the number of holes in a briefly presented portion of a perforated shotgun target, by natural groups.

Group norms which are more or less arbitrary as to mode and latitude will form under conditions in which one member of a natural group

gives moderately arbitrary judgments in the course of group norm formation. The degree of arbitrariness of the emerging norm will be jointly dependent on the status of the deviant member and the solidarity of the group.

The individual arbitrary norm of a previously indoctrinated member of a natural group will be affected by the process of norm formation in his group. Although the emerging group norm will approximate the individual norm of the leader of a high solidarity group, the individual norm of an indoctrinated low status member of such a group will shift in the direction of the emerging group norm, i.e., become less arbitrary. The individual norms of high and low status members of low solidarity groups will become less arbitrary and come to approximate the emerging group norm, i.e., will become less arbitrary yet not to the extent that low status members of high solidarity groups become less arbitrary.

The general hypothesis in regard to the relative power of high and low status positions in relation to group solidarity in group norm formation (which is the main concern of the present study) is that group solidarity directly affects the relative power of status position. In high solidarity groups the leader will have relatively great power to impose arbitrariness on an emerging group norm, whereas a low status member will have little, if any, power to impose arbitrariness. In low solidarity groups the leader will have significantly less power than a high solidarity group leader to impose arbitrariness while the power of a low status

member in low solidarity groups will approximate that of the leader in low solidarity groups.

The specific hypotheses made in this study follow.

Hypotheses Concerning Indoctrinated Members' Norm Persistence and Change

1 (a) A prescribed, moderately arbitrary, norm presented by a majority of participants, who are unknown to a participating naive subject, in the course of interpersonal interaction in autokinetic or shotgun judgment situations, will be internalized by the naive participant.

(b) This internalized arbitrary norm will persist, to a greater or lesser extent, as an individual norm in subsequent judgment interactions participated in by the indoctrinated participant and members of his natural group (not present during the original norm formation).

2 (a) The moderately arbitrary individual norm of a high solidarity natural group leader will persist in the course of group norm formation.

(b) In contrast, the similar arbitrary individual norm of a low status member of the same group will change in the course of group norm formation toward the natural norm and will come to approximate the emerging group norm.

3 (a) The individual norm of both high and low status indoctrinated members of low solidarity groups will shift in the course of group norm formation toward the natural norm.

(b) The individual norms of high and low status indoctrinated

members will not come to approximate the emerging group norm to the extent the individual norms of low status members of high solidarity groups will come to resemble their respective group norms.

(c) Shifts of the individual norms of high and low status members of low solidarity groups will not differ appreciably.

Hypotheses Concerning Group Norm Formation

4 (a) When the leader of a high solidarity natural group gives judgments within an arbitrary prescribed range and around an arbitrary prescribed mode (in conformity to an experimentally indoctrinated arbitrary norm) in the course of group norm formation, interacting group members will form a group norm which is arbitrary in reference to the natural norm for the conditions (provided the leader's arbitrariness is not excessively extreme for the defined conditions of norm formation).

(b) The group norm formed with leader introduced arbitrariness in high solidarity groups will be more arbitrary than norms formed with low status member introduced arbitrariness in high solidarity groups.

(c) The group norm formed with leader introduced arbitrariness in high solidarity groups will be more arbitrary than norms formed under either high or low status member introduced arbitrariness in low solidarity groups.

5 (a) When a low status member of a high solidarity natural group gives judgments in conformity to an arbitrary prescribed norm, in the course of group norm formation, interacting members of the group will

form a group norm in which the norm central focus will lie below that of the prescribed norm, in the direction of the natural norm, and in which the greater proportion of the latitude of the norm will lie outside the prescribed norm in the direction of the natural norm.

(b) Norms formed with low status member introduced arbitrariness in high solidarity groups will be less arbitrary, in both central focus and conformity to the arbitrary norm, than norms formed with either high or low status member introduced arbitrariness in low solidarity groups.

6 (a) When a natural group leader in a low solidarity group conforms to an arbitrary individual norm in the course of group norm formation, the emerging group norm will be less arbitrary than the norm formed under leader introduced arbitrariness in high solidarity groups, and more arbitrary than norms formed with low status introduced arbitrariness in high solidarity groups.

(b) Such low solidarity group norms (formed under leader introduced arbitrariness) will not differ greatly in degree of arbitrariness from norms formed in low solidarity groups with low status member introduced arbitrariness.

CHAPTER III

METHOD

Observation of Groups. Two "Latin" (Mexican-American) observers gained experience by observing natural groups, which were used for purposes of pretest, during the spring of 1965. These observers, under the close supervision of the researcher, located several Latin groups of teen-age boys in a South Texas town of approximately 25,000 population in September, October, and November, 1965. The researcher was working at a state college in the vicinity.

Both observers managed to become non-authoritarian "big brothers" to their respective groups during December, 1965. The groups, "Cobbers" and "Mickers," were both well established, with members primarily from middle-lower socio-economic Latin families. Detailed reports of group activities and intragroup, interpersonal, interaction were made over a six month period by both observers. Status hierarchy shifts and solidarity indicants were recorded. Status and solidarity in the "Cobbers" remained relatively consistent. Status and solidarity in the "Mickers" changed from solid and linearly structured to less solid, as a consequence of status position shifts and instability following the departure

for military service of several high status members in January and February.

An "Anglo" (English speaking South Texas culture derived) observer was placed as a volunteer tutor at a county correctional institution with a population of about 60 boys. Less than a dozen of these boys were Anglo and the situation led to a degree of groupness among the Anglo boys. This group was observed for five months (February to June) before it was placed in the experimental situation. The institutional situation and several field trips (hunting, fishing, etc.), with only the Anglo boys and the observer participating, facilitated structure and solidarity determination for this group (the "Ploys").

One of the previously referred to Latin observers and a third Latin observer observed the "Tonys," "Hogs," and "Bayers" from different South Texas cities throughout June and July, 1966. The members of these groups were participating in a program conducted by the college, in which they remained in residence, in their neighborhood-school groupings as they existed on arrival at the campus. The members of these groups were in close proximity at the college for eight weeks (lived together in dormitory appartments, participated in academic and non-academic activities as neighborhood groups). Observations were made primarily during non-academic activities. Only the extensive previous experience of the observers--plus the proximity of the researcher and his staff--made objective observation of these groups possible in the two month time

period available. (The researcher had written the psychological-social guidelines for this program, based on using existing natural groups, for the purpose of attitude change of socio-economic-academic deprived teen agers toward perceiving formal education as desirable.)

General. The rationale, as given below, used to explain to the group members as to why they were paid to participate in judgment tasks, was effective. Comments made by the participants in the presence of observers, who were not associated in the boys' minds with the judgment sessions, indicated they were not suspicious that they were being influenced individually or studied as a group.

An "official" college institute, at the college where the researcher was employed, entitled "The Measurement Studies Laboratory," was created in January, 1965, complete with post office box, information forms for payment of subjects, and a special local bank checking account through which subjects were paid. The publicly stated purpose of this "research organization" was to determine how accurately people can estimate the measurement of distances, amount of movement, comparative quantities of a large number of objects, and similar "measurement" problems. Public announcements were made: "We want to find out how well the human mind and senses can function as a calculating machine on the basis of a small amount of information." Against this background, when a group was ready for the experimental phase, word was passed casually to a group member (usually by a college student) that the college had made

some money available to this organization and that they would pay fairly high wages to half a dozen or so fellows who are used to working together "because they need information as to how well crews of spacecraft, military aircraft, and other small units might make estimates."

Subject participation at the desired time was assured by payment of the individual, or group, at a higher rate than that usual for teen-age odd-job pay in the area for the subjects involved.

When the subjects arrived at the judgment site (shotgun range or autokinetic room) their observer was not present. They were met by the experimenter, who greeted them in a very casual manner. After the boys relaxed, the experimenter explained to them the "purpose" of the research. He told them:

> There is good evidence that the human mind is a very good calculator; it can make very good estimates when people don't stop and try to figure out things by doing mental arithmetic. Since many situations in both the space program and in military operations involve crews who have worked together for some time making estimates, we are interested in having fellows who know each other pretty well make the estimates here. /phrase--"who know each other pretty well"--omitted from indoctrination sessions/ Some of you may have done this before with some other fellows, but that will be OK, just go ahead and do it again. I guess a little extra money won't hurt you, eh? Now one thing--please make your estimates just as accurately as you can, every time. This is very important since we need good estimates to make this a good study.

For the Shotgun Situation (SG). In the shotgun target judgment situation (see Figures 1 and 2) the experimenter, after the general orientation, had the group sit in a semi-circle, on stools, to the rear and one side of the firing-line. He then showed them the shotgun, explained its operation,

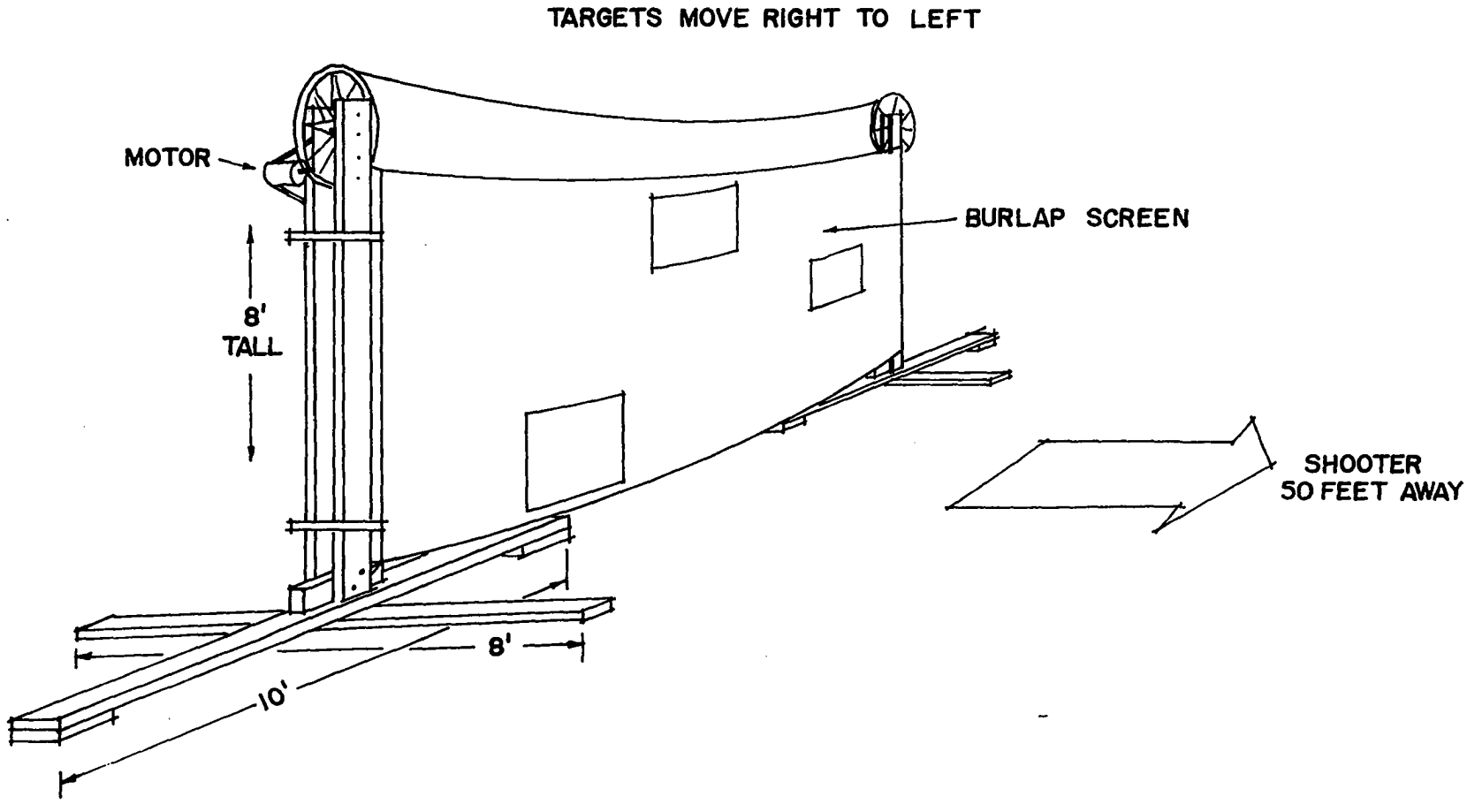


Fig. 1. Shotgun moving target apparatus for judgment situation.

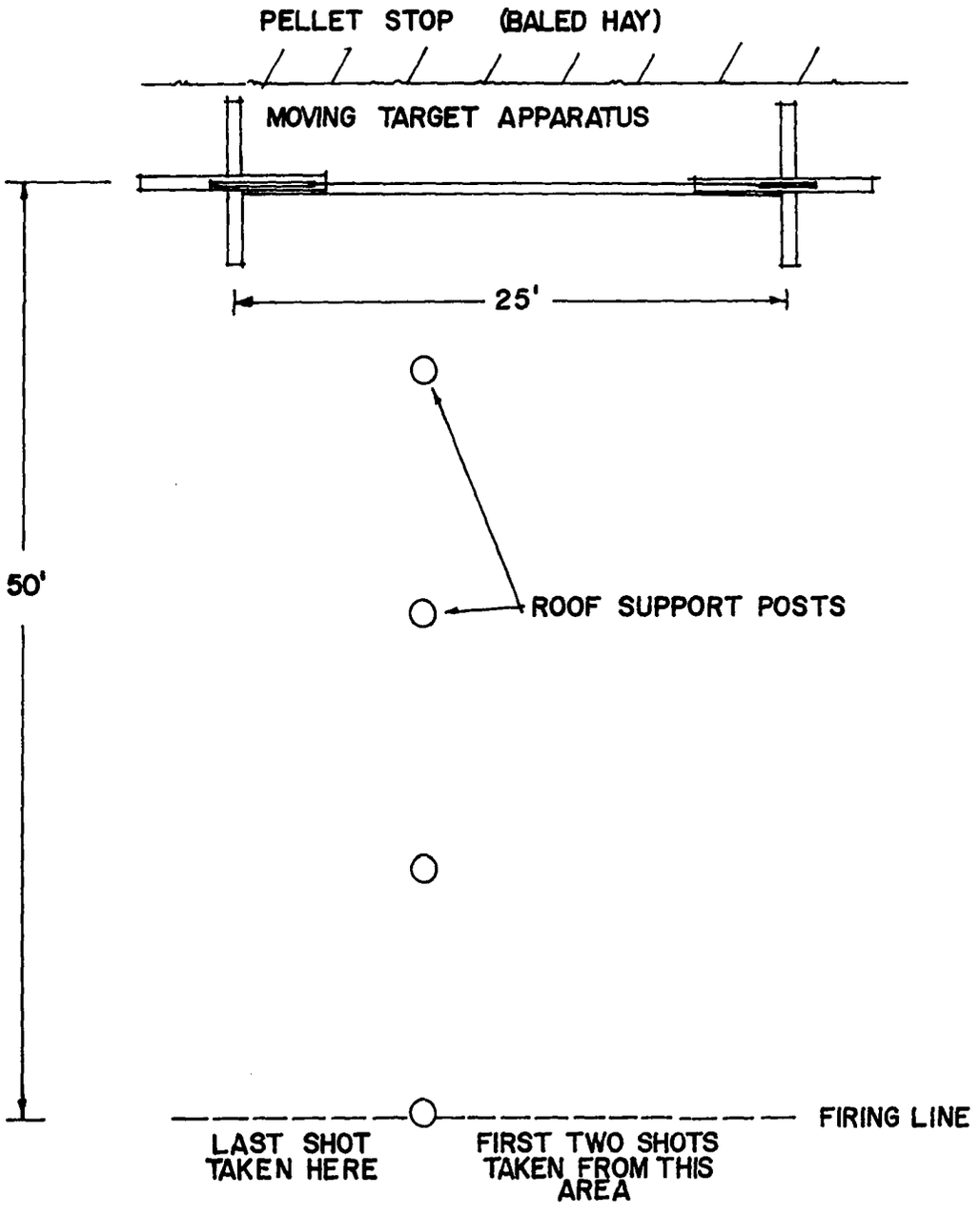


Fig.2. Shotgun judgment task range area.

and passed it to the group for their inspection and handling. The weapon was a common pump-model (Winchester, 410 Ga., model 42) which is also made as a .22 caliber rifle, so most of the boys were familiar with its operation. The experimenter then demonstrated, shooting once at each of the three rabbit-silhouette targets (Figure 3) as they moved into sight in the apertures in the screen located fifty feet from the firing line. A mock target, presented as one just shot by the experimenter, was brought back and shown to the boys. They were told, "See, you can't possibly miss; there is no choke in this gun. Just point it toward the holes down there and pull the trigger. This is the cheapest way we know to make these patterns for you to judge and you might as well have the fun of making them."

The boys were asked "Who is first?" and then, in turn as they chose, each boy fired the course. Each shooter fired once at each of the three rabbit-silhouette targets as they moved into view, one at a time, in openings in the burlap screen. Each shell contained approximately 400 fine pellets, the holes from which could not be seen from the firing line.

The oval body portion of the rabbit-silhouette of mock targets, exactly like the ones shot at, were scored aloud by every member of the group. Each target was presented for .8 sec. by a timer-controlled overhead projector located in a shed to one side of the range. Subjects judged aloud in the same order in which they had fired. Each mock target

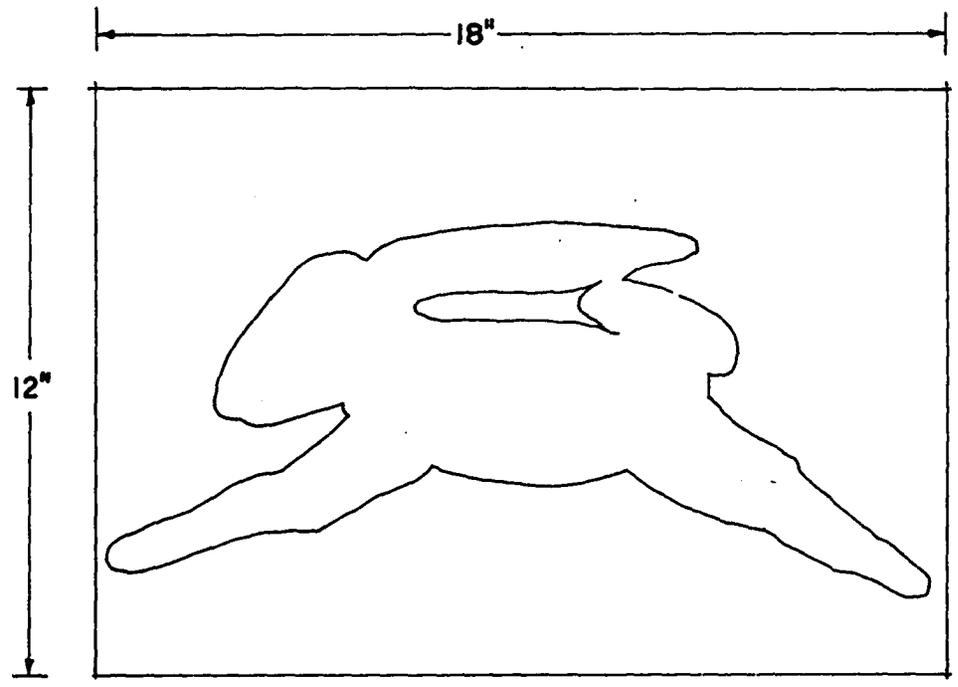


Fig.3. Rabbit outline target used in shotgun judgment task situation.

had a different pattern of holes to simulate real targets. All mock targets had the same number of holes (100) in the portion projected for judging. Even to the experimenter and experienced shooters, the mock targets resembled actual, open bore, shotgun patterns. Pretesting with various patterns indicated that blank spaces, i. e., unperforated spaces, in different parts of the silhouette resulted in different scores being attributed to the targets, so such blanks were avoided. This possible effect of irregular patterns, some poor shooting by a few of the boys, and the lack of being able to control the actual number of shot holes within the judged portion of the silhouette of the shot-at targets are the reasons prepared (mock) targets were used. No subject, during either pretest or experimentation, questioned whether or not the mock targets were the ones they had actually shot.

For the Autokinetic Situation (AK). Following the general orientation the experimenter gave the appropriate instructions for the AK judgment task. In the autokinetic room (Figure 4) the technique and specific instructions developed and used by Sherif (1935) and MacNeil (1964) were followed. A dark adaptation time of five minutes is required and this was used to give the general orientation. Information on the use of knowledge regarding humans' estimating distance of light movement in military, aircraft, and space programs was repeated (MacNeil, 1964).

Experimental Procedure. Six natural groups of teen-age boys were studied in their every-day settings, over periods of from two to seven

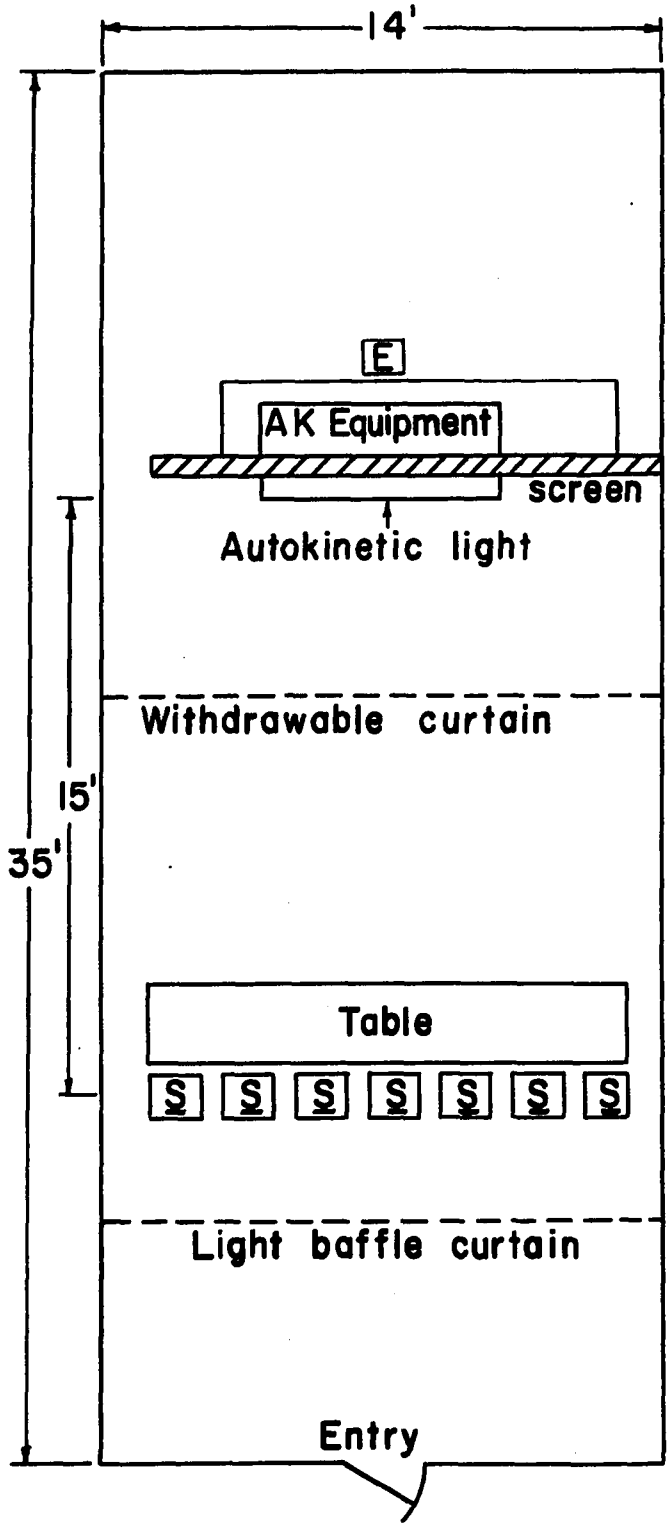


Fig. 4. Autokinetic judgment situation room. Arrangement and dimensions.

months, by non-participant observers. Concurrently with determining the status hierarchy of each group, observers reported indications of group solidarity. These indications included the amount of time group members were together, the variety of activities engaged in, the adoption of evidence of existing group values in conflict with societal and family values, and the secrecy of group activities (Sherif & Sherif, 1964).

A natural group, as defined in this research, is a social unit possessing norms, i.e., standardized ways of perceiving and doing things, in regard to matters which are of concern to the group members. Group norms form, and change, through interpersonal interaction among group members. The norms of a natural group include a relatively definite member status ranking, which like most norms is more or less persistent over time, and which in a natural group is not imposed from outside the group (Sherif & Sherif, 1956).

The status positions of the natural group members in this study were determined by non-participant observers. The criterion of status rank was, primarily, the degree of a member's effective initiation of group activities.

The more fixed, persistent, and generalized over different activities the status structure of a group is, the greater the solidarity of the group. In this study the status hierarchy of each group was reported by the respective group observer immediately following each period of observation. Status ranking was established on the basis of observed effective initiative

and justified in each instance by observed behavior of the group members present. Observers followed the procedures detailed by Sherif & Sherif (1964) and reported on the form shown in Appendix C. Supplementary observations by other than their regular observers were made on all groups. A minimum of one task situation of at least three hours duration was engaged in by all groups, with the activities observed by the researcher and one other trained observer. An example of the task situations is the moving of 500 bales of hay a distance of 150 feet to clear the shotgun range.

The status ranks of group members, at the time they participated in the experimental judgment situations, are indicated in Appendix B. There were no shifts in status position rankings which occurred during the experimental phase of this study, i. e., between the times of the high status indoctrinated member and low status indoctrinated member judgment sessions.

Each group was placed in two judgment situations in the experimental phase of the research: (1) the autokinetic situation (AK) (Sherif & Sherif, 1956), and (2) the shotgun situation (SG) developed in the course of this research. These two situations enabled measurement of the power of a high and a low status member of each group in experimental norm formation. The AK situation is the classic method for studying experimental social norm formation. The SG method was developed during the course of the present research by extensive pretesting on both groups and individuals. It provides the additional social norm formation situation demanded

by the research design.

Experimenter collaborators (plants) in both the AK and SG indoctrination sessions were college social science majors. Plants were selected for their ability to give a prescribed distribution of numerical judgments. Training of plants was necessary so that judgments would be given with assurance and in a random order from experimenter prescribed, arbitrary, distributions. Since both Anglo and Latin groups were used in this study, Anglo and Latin plants were required. Pretesting revealed that members of Latin groups might react in contrast to the prescribed arbitrary judgment range when plants were Anglo, and vice versa. (Interesting speculations as to the feasibility of using this phenomenon as a means of covertly determining acculturation and social distance factors were not pursued.)

Pretest and development of the experimental situations involved 210 subjects, including 3 natural groups. In addition, 20 plants were trained in judgment sessions preceding their participation in indoctrination sessions with the selected group member. Each series of judgment sessions required approximately two hours. Briefings, transportation to and from the SG range, and debriefing of subjects and plants added approximately one hour to each series. SG judgment patterns were pretested at the range and in the laboratory on student volunteers from elementary psychology, sociology, and other social science classes. Experimental and natural groups were used in pretesting and determining the natural norms for the judgment situations.

Arbitrariness in the formation of experimental norms consists of prescribed ranges and modes that diverge to a marked degree from those of norms that would emerge under the same conditions, in the course of intragroup interpersonal interaction, without imposition of experimenter prescribed judgments. In the present study the arbitrariness of the experimenter selected (by status) group member's judgments was established by the member's participating in the judgment situation with four experimenter collaborators (plants) who gave a prescribed, arbitrary, frequency of judgments during the indoctrination phase. Participation in the relatively unstructured judgment situation with four plants, for an extensive series of judgments (140 in AK, 75 in SG) assured the naive group member's perception of the judgment situation as prescribed. The indoctrination sessions were conducted 24 hours prior to the group's participation in the same judgment situation.

In the AK situation the natural range, determined by extensive pretesting of experimental and natural groups, for the conditions was 2" to 9", median = 5". The prescribed arbitrary norm was 12" to 18", median = 15" (observed movement of stimulus light).

In the SG situation the natural range was 50 to 110, median = 75 (estimated number of holes in shotgun mock targets which subjects erroneously assumed had been shot by themselves). The prescribed arbitrary norm was 135 to 165, median = 150. Judgments were given in increments of five without experimenter instruction. The identity of members'

targets was not revealed as they were presented for judgments.

The experimental design required that groups of high solidarity and groups of low solidarity each have both a high and a low status member indoctrinated in different judgment situations. The indoctrinated member was then placed in the same judgment situation with his group. SG and AK situations were alternated among the groups so that the power of high and low status members, from both high and low solidarity groups, was tested in both judgment situations.

The natural groups observed in this study participated in experimental norm formation judgment situations as follows:

Group	Solidarity	Member Indoct.	Judgment Situation	No. of Members
Cobbers	High	High	SG	4
		Low	AK	5
Tonys	High	High	AK	5
		Low	SG	5
Ploys	High	High	AK	7
		Low	SG	7
Mickers	Low	High	AK	6
		Low	SG	6
Hogs	Low	High	SG	5
		Low	AK	5
Bayers	Low	High	SG	4
		Low	AK	4

CHAPTER IV

RESULTS

The concept of norm, as defined in this research, requires a measure of latitude of responses and a measure of typicality, or modal focus, of responses within the norm range. The principal measure used in evaluating the hypotheses is the proportion of group member judgments within the experimenter prescribed arbitrary norm. The raw data are the judgments made by the 32 members of the 6 natural groups which participated in both of the 2 experimental judgment situations utilized in this study.

After the indoctrination phase for each judgment situation, in which either a high or a low status member of the group internalized the prescribed arbitrary norm for the situation, members of each natural group, participating as a group, made judgments aloud in reference to the appropriate stimuli. In the AK situation each member made 150 autokinetic judgments. In the SG situation each member made from 84 to 108 judgments, depending on the number of participating group members.

Judgment sessions in the AK situation consisted of 30 judgments each. Five AK sessions, interrupted only by 5 minute "rest breaks," were completed by all groups 24 hours after their respective high or low

status member's indoctrination sessions. Judgment sessions in the SG situation consisted of judgments, by each member, of 3 mock shot patterns for (and allegedly shot by) each participating member. The number of SG situation judgments per session, therefore, varied from group to group according to the number of members participating. Twelve judgments were made by each member per session by the four member (participating) groups (Bayers and Cobbers). Twenty-one judgments were made per member, per session, in the seven member (participating) group (Ploys). The number of judgment sessions in the SG situation, per group, varied from 5 to 7 in order that approximately the same total number of judgments would be made by all groups.

The base against which comparison of treatment effects are made in this study is the prescribed arbitrary norm. The nature of the arbitrary norm for each judgment situation was determined, not a priori, but through extensive pretest, so as to be distinct from the natural norm yet not be so arbitrary as to preclude adoption. The natural norm is that range and mode of judgments which forms without experimenter introduced arbitrariness. The measure of latitude used to define the natural norm in this study is the range of judgments from 2.5% to 97.5% (Rn'). Judgment means ($\bar{X}$) and medians (Mdn.) indicate modal foci.

Table 1 presents the natural norms for the AK and SG situations. The natural norm for the AK situation is computed from the judgment data of a six member natural group (not otherwise involved in this study) and

Table 1

Natural Norm Medians, Means, and Ranges for Autokinetic and Shotgun Judgment Situations. (AK in inches, SG in estimated shot holes)

Autokinetic Situation

Group	Median	Mean	Range'*
1	6.0	6.5	3 - 11
2	5.0	5.1	1 - 9
3	4.0	3.9	2 - 6
Overall	5.0	5.0**	2 - 9

Shotgun Situation

Group	Median	Mean	Range'*
1	75	75.4	55 - 100
2	75	75.1	50 - 100
3	75	78.4	45 - 120
Overall	75	76.8**	50 - 110

*Range' Range from 2.5% to 97.5% of judgments
**Weighted mean

8 Ss in experimental groups of 4 Ss each. These 14 participants gave a total of 660 AK judgments (Appendix B). The AK natural norm in relation to which the AK arbitrary norm was prescribed is: Mdn. = 5", Rn' = 2"-9". The prescribed AK arbitrary norm is Mdn. = 15", Rn = 12"-18".

The SG situation natural norm is computed from the data of two experimental groups of 6 Ss each and 1 experimental group of 5 Ss. These Ss gave a total of 657 SG judgments (Appendix B). The computed natural SG norm is: Mdn. = 75, Rn' = 50-110 shot holes. The SG arbitrary norm prescribed in relation to the SG natural norm is: Mdn. = 150, Rn = 135-165 shot holes.

The prescribed AK arbitrary norm was presented in the indoctrination phase by 4 plants in 5 judgment sessions with the selected status position group member. The prescribed SG arbitrary norm was presented by 4 plants in 5 judgment sessions in which the plants and the status member shot and then judged the shot patterns they assumedly had just fired. All estimates in the SG situation were given, without prompting, to the nearest 5 shot holes; therefore, the perceptual SG judgment unit is 5.

The derived mathematical comparative relationship between the AK and SG norm judgment units is shown by the formula AK = (SG - 75)/5 (Guilford, 1965, pp. 534-536). The comparative judgment units in terms of inches of perceived movement and estimated number of shot holes within the AK and SG prescribed arbitrary norms respectively are:

Inches (AK)		Shot Holes (SG)
12		135
13		140
14		145
15	--($\bar{x}$, Mdn., Mode)--	150
16		155
17		160
18		165

Solidarity indicants were provided by observer reports, confirmatory observation reports, and observation of task situations. Classification of groups in terms of high (H) or low (L) solidarity was judged by the group's observer, two independent observers who observed all groups at least twice, and the researcher. Criteria of solidarity considered are listed in Appendix C. All judges classified the groups as follows:

Low Solidarity	High Solidarity
Mickers	Cobbers
Hogs	Tonys
Bayers	Ploys

Formation, Persistence, and Change of Individual Arbitrariness

Hypothesis 1 (a). Indoctrination of the high status member (hi) i.e., the leader, and the low status member (lo) of each of the six natural groups with the experimenter prescribed arbitrary norm, as presented by four

plants, resulted in the indoctrinated member's giving judgments in the indoctrination session as shown in Tables 2 and 3. Hypothesis 1 (a) may be evaluated with reference to these tables and Figure 5.

In both the AK and SG indoctrination sessions the leader (hi) of each group gave 100% of his judgments within the prescribed range.

Low status indoctrinated members (lo) of the high solidarity group (H) "Cobbers" and the low solidarity group (L) "Bayers" gave 100% of their judgments within the arbitrary range. The lo member of the "Hogs" (L) gave only one judgment outside the prescribed range, i. e., 98.2% within. The lo of the "Mickers" (L) gave 93.1% of his total indoctrination judgments within the prescribed arbitrary range; however, in the last indoctrination session 100% of his judgments were within the prescribed arbitrary range. The lo of the "Tonys" (H) gave 69.3% of his overall indoctrination judgments within the prescribed arbitrary range, although he gave 80% within during his last indoctrination session. The "Ploys'" (H) lo gave 77% of his indoctrination judgments above the lower limit of the arbitrary range (41.3% within, 36.0% above). The frequency distributions of group members during indoctrination are presented in Appendix A.

All groups participated, as planned, in the group judgment sessions twenty-four hours following the indoctrination of their experimenter selected status member in the appropriate judgment situation.

Hypothesis 1 (b). The effect, on the indoctrinated member's

Table 2

Percent of Judgments Within Prescribed Range for Indoctrination, First, and Overall Group Sessions of Low Solidarity Groups (L)

High Status Member (hi) Indoctrinated

Group	Indoct. Session	1st Gp. Session		Overall Gp. Sessions	
	hi	hi	Gp(-)	hi	Gp(-)
Mickers (AK)	100.0	76.7	34.7	63.3	28.3
Hogs (SG)	100.0	86.7	25.0	87.8	51.4
Bayers (SG)	100.0	100.0	88.9	83.3	85.3
Total	100.0	84.2	40.2	75.3	44.9

Low Status Member (lo) Indoctrinated

Group	Indoct. Session	1st Gp. Session		Overall Gp. Sessions	
	lo	lo	Gp(-)	lo	Gp(-)
Mickers (SG)	93.3(100)*	66.7	27.8	57.4	38.5
Hogs (AK)	100.0	93.3	64.2	70.7	54.5
Bayers (AK)	100.0	100.0	66.7	99.3	84.9
Total	98.6	89.7	54.0	71.6	57.7

*Last session (15 judgments)

Table 3

Percent of Judgments Within Prescribed Range for Indoctrination, First, and Overall Group Sessions of High Solidarity Groups (H)

High Status Member (hi) Indoctrinated

Group	Indoct. Session	1st Gp. Session		Overall Gp. Sessions	
	hi	hi	Gp(-)	hi	Gp(-)
Cobbers (SG)*	100.0	100.0	83.3	98.8	92.1
Tonys (AK)	100.0	93.3	55.0	98.7	72.7
Ploys (AK)	100.0	100.0	67.2	97.3	77.6
Total	100.0	97.2	64.6	98.2	78.0

Low Status Member (lo) Indoctrinated

Group	Indoct. Session	1st Gp. Session		Overall Gp. Sessions	
	lo	lo	Gp(-)	lo	Gp(-)
Cobbers (AK)	100.0	36.7	25.0	16.0	15.8
Tonys (SG)	69.0(80.0)**	73.3	30.0	47.8	26.7
Ploys (SG)	41.3(77.0)***	38.1	22.2	33.3	34.0
Total	76.9	45.5	24.8	29.6	25.5

*Judgment situation
**Last session (15 judgments)
***36.0% above prescribed range

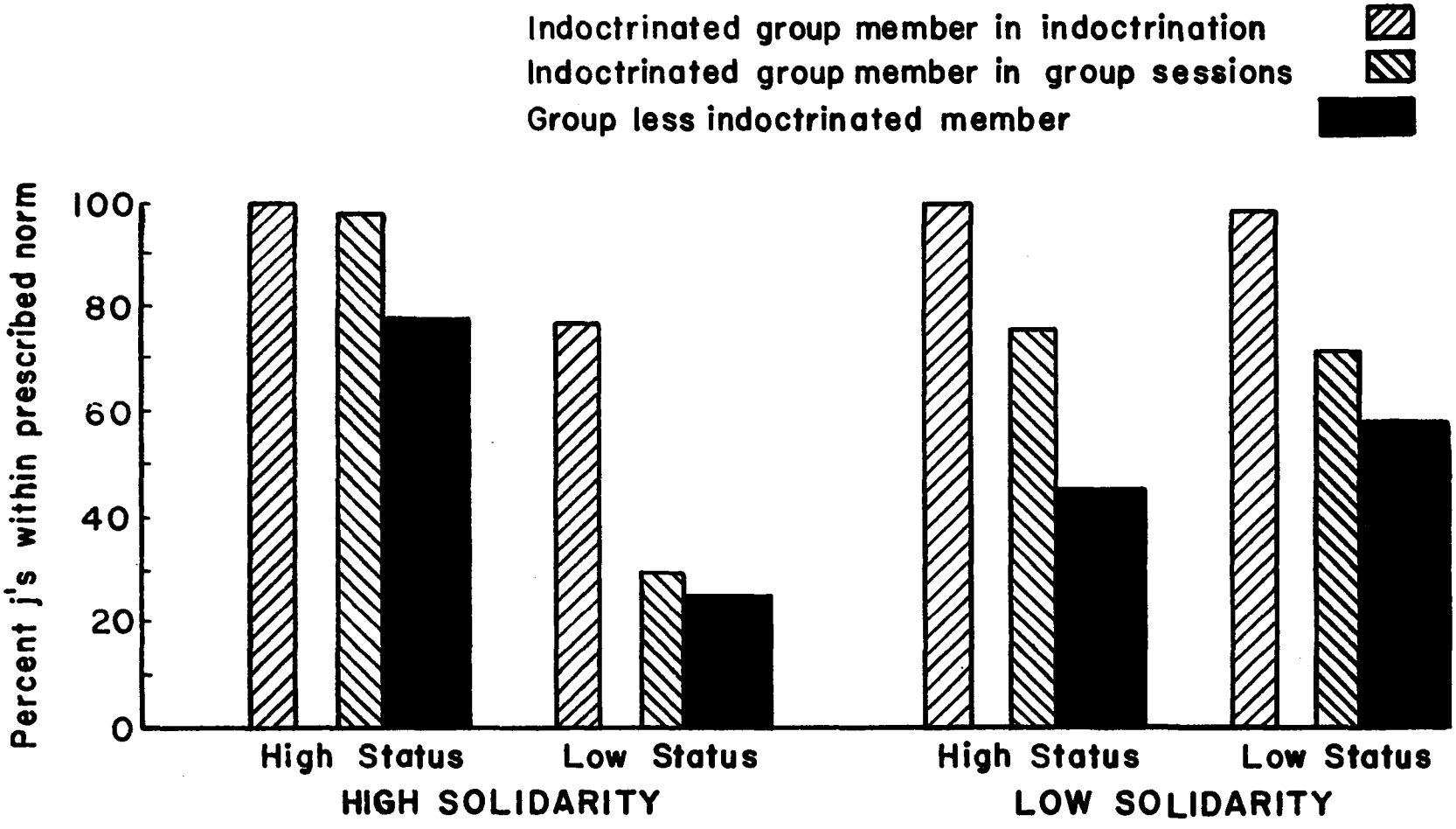


Fig. 5. Percent of judgments within prescribed arbitrary norm of high and low solidarity groups with a high or a low status member previously indoctrinated with the prescribed norm. Three groups in each solidarity condition.

judgments, of the interaction between his arbitrary norm and the judgments of the other group members is apparent in the indoctrinated member's conformity to the arbitrary norm during group norm formation. The indoctrinated member's degree of conformity to the arbitrary norm in the first group judgment sessions and in the total group sessions is indicated in Tables 2 and 3 and Figure 5. These data are highly supportive of hypothesis 1 (b). The internalized arbitrary individual norm formed through indoctrination does persist, more or less, in the initial stages of group norm formation.

Hypothesis 2 (a). It is evident from inspection of Table 3 and Figure 5 that an indoctrinated high status member of a high solidarity group does maintain his individual arbitrary norm during group norm formation under the experimental conditions utilized in this study, as predicted in hypothesis 2 (a). The hi members in H groups shifted from 100% within the arbitrary during indoctrination to 97.2% within during the first group sessions and 98.2% within over all group sessions. There is no significant difference between the percentage of judgments given within the prescribed arbitrary range in the indoctrination sessions and in the group sessions, by tests for the difference between two correlated proportions (Edwards, 1960).

Hypothesis 2 (b). The data presented in Table 3 likewise indicate that an indoctrinated low status member of a high solidarity group, as predicted in hypothesis 2 (b), does not persist in a previously internalized

arbitrary norm during group norm formation. The lo members of H groups shifted from 76.9% overall within the arbitrary norm (87.2% within and above) in indoctrination to 45.5% within during the first group sessions and to 29.6% within over all group sessions. The shifts in percentage of judgments (correlated proportions) within the prescribed arbitrary range in the indoctrination sessions and in the group sessions are significant ($P < .0001$).

The difference in shifts of individual norms, during group norm formation, between hi and lo members in H groups is significant ($P < .0001$), by test for the difference between non-correlated proportions (Edwards, 1960). This difference in shifts supports hypothesis 2 (a) and 2 (b).

Hypothesis 3 (a). It was predicted that the individual norms of hi and lo members of L groups shift during group norm formation toward the natural norm. The data presented in Table 2 indicate that hi members of L groups shifted from 100% within the arbitrary during indoctrination to 84.2% within during the first group sessions and to 75.3% within over all group sessions. These shifts by hi members of L groups are significant ($P < .0001$). The lo members of L groups shifted from 98.6% within the arbitrary norm in indoctrination to 89.7% within during the first group sessions and to 71.6% within over all group sessions. These shifts are significant at better than the .01 level and support hypothesis 3 (a).

Hypothesis 3 (b). The lo members of H groups shifted a significantly greater amount (76.9% indoctrination, 45.5% first sessions, 29.6%

overall) away from the arbitrary norm in terms of percentage of judgments within the arbitrary norm than the lo or hi members of L groups ($P < .0001$). The greater shifts of lo members in H groups compared to shifts of both lo and hi members in L groups (Tables 2 and 3) support hypothesis 3 (b).

Hypothesis 3 (c). There is no significant difference between the shifts from indoctrination to group sessions by hi and lo members of L groups. This lack of difference between hi and lo individual norm shifts supports hypothesis 3 (c).

Joint Effects of Solidarity and Status Arbitrariness on Group Norm Formation

The major concern of this study is the effect of group solidarity on the relative power of high and low status position members to introduce arbitrariness into group norms during norm formation. It was predicted that group solidarity directly affects the power of status position.

In high solidarity groups it was predicted that the leader would have relatively great power to impose a moderate degree of arbitrariness on emerging group norms. A low status member of a high solidarity group was predicted to show the least power in comparison to the leader of high solidarity groups as well as in comparison to both the leader and low status members of low solidarity groups.

In low solidarity groups it was predicted that there would be little difference in the power of low and high status members. It was predicted,

however, that the power of both the low and high status members of the low solidarity groups would exceed that of low status members of high solidarity groups yet not be so great as the power of high status members of high solidarity groups. Symbolically, the predicted power relationship was:

$$\underline{\text{hi H}} > (\underline{\text{hi L}} \cong \underline{\text{lo L}}) > \underline{\text{lo H}}$$

To compare meaningfully the differential effects of low and high solidarity on emerging group norms, the difference between norms formed under similar degrees of arbitrariness, introduced by similar status position members, was considered. To determine the differential effects on group norm formation of arbitrary suggestion by members of high and low status positions, comparison of norms formed under these variables in both high and low solidarity groups, was made. Measurement of the interaction effect of group solidarity and status position was also provided.

The critical measure of the effect of status position power in this study is the degree of conformity by interacting group members to the prescribed arbitrary norm. Conformity is best observed in the proportions of group member judgments which lie within the limits of the prescribed arbitrary norm. The concept of norm defined in this study emphasizes the latitude of behavior involved in the responses of group members. Considering only measures of typicality, i.e., statistical measures of central tendency, while useful in gross descriptions of norms, overlook the nature of real-life norms which are most realistically

described in terms of latitude (MacNeil, 1964).

Comparison of degrees of conformity to the prescribed arbitrary range determined that the distribution of the weighted means of the proportions of judgments within the prescribed arbitrary norm, considering all treatment effects, is not normal, and is bimodal, thus not meeting the assumptions underlying valid use of the parametric statistical method of analysis of variance. This non-normal distribution was predictable for the experimental design employed under the proposed hypotheses. A non-parametric statiscal method enabling valid analysis of the difference in proportions of group judgments above the overall judgment median is an appropriate means for analyzing conformity, the principle measure of effect in this study. Wilson (1956) provides such a test.

The overall median of judgments for H and L solidarity groups under hi and lo status arbitrariness is 13 inches in the AK situation and 140 shot holes in the SG situation. The median in both AK and SG situations, therefore, is 1 judgment unit above the lower limit of the prescribed arbitrary norm. The frequency of judgments above and below the overall median, therefore, provides a stringent, yet realistic, criterion of effect. Wilson's test, in addition, enables analysis of the effect of the interaction of solidarity and status.

Frequencies of judgments above and below the overall median of the high solidarity (H) and low solidarity (L) groups, under conditions of group norm formation in which a leader (hi) or a low status member (lo)

presents a prescribed arbitrary norm, are presented in Table 4. Individual and group data are in Appendix B.

The differential effect of solidarity, H versus L, without regard to status, resulted in a χ^2 of 51.18, $P < .001$. Comparison of status rank, hi versus lo, without regard to solidarity, gave a χ^2 of 504.37, $P < .001$.

In order to evaluate the differences in conformity (Tables 5 and 6, Figures 6 and 7) to the prescribed arbitrary norm by high and low solidarity groups under conditions of low and high status member introduced arbitrariness, a series of tests of correlated and non-correlated proportions (Edwards, 1960) were calculated. Analysis of the difference between H and L solidarity under hi status arbitrariness and H and L solidarity under lo status arbitrariness were made by tests of non-correlated proportions. Comparison of group norms formed under conditions of hi and lo status arbitrariness in H solidarity groups and under hi and lo status arbitrariness in L solidarity groups were made by correlated proportions tests. Table 7 summarizes the results.

Group norm means and medians are presented in Tables 8 - 11 and in Figures 8 and 9. The differences in group means, over judgment sessions, formed under conditions of high and low member introduced arbitrariness in high and low solidarity groups were tested by Mann-Whitney U tests (Siegel, 1956). The results are shown in Table 12.

Hypothesis 4 (a). H solidarity group norms formed with hi status member introduced arbitrariness were arbitrary norms. The means and

Table 4

Contingency Table for Solidarity and Status--

Frequencies of Judgments Above and Below

Overall Median (AK-13 SG-140)

	Above Mdn*			Below Mdn*	
			Solidarity		
Status	H	L		H	L
hi	1640	707		306	877
lo	523	932		1324	858
		χ^2	df	P	
Total		1261.19	3		
Status (r)		504.37	1	< .001	
Solid. (c)		51.18	1	< .001	
Inter. (c x r)		705.64	1	< .001	

*Frequency at median omitted

Siegel (1956)
Wilson (1956)

Table 5

Low Solid Group Conformity to Prescribed Arbitrary Norm --

Group Percentages Within by Sessions

	hi Status Indoctrinated				lo Status Indoctrinated			
Judgment Situation:	AK	SG	SG		SG	AK	AK	
Sessions	Mickers	Hogs	Bayers	Overall	Mickers	Hogs	Bayers	Overall
I	41.7	37.3	91.7	48.5	34.3	70.0	75.0	61.4
II	36.7	66.7	95.8	53.5	40.7	74.7	80.8	66.9
III	32.2	58.7	97.9	49.2	37.0	68.0	89.2	65.9
IV	27.8	65.3	91.7	47.2	41.7	53.3	99.2	64.6
V	32.2	57.3	85.4	46.9	46.3	22.7	98.3	53.4
VI		66.7	72.9	69.1	50.0			50.0
VII			58.3	58.3				
Overall	34.1	58.7	84.8	48.7	41.7	57.7	88.5	59.5

Table 6

High Solid Group Conformity to Prescribed Arbitrary Norm --

Group Percentages Within by Sessions

	hi Status Indoctrinated				lo Status Indoctrinated			
Judgment Situation:	SG	AK	AK		AK	SG	SG	
Sessions	Cobbers	Tonys	Ploys	Overall	Cobbers	Tonys	Ploys	Overall
I	87.5	62.7	71.9	70.3	27.3	38.7	24.5	28.5
II	93.8	78.0	73.3	77.5	24.0	32.0	29.9	28.0
III	97.9	82.7	86.2	86.3	10.7	45.3	38.1	28.5
IV	85.4	81.3	83.3	82.8	9.3	37.3	39.5	26.9
V	97.9	84.7	87.1	87.5	8.0	25.3	37.4	23.1
VI	95.8			95.8		6.7		6.7
VII	97.9			97.9				
Overall	93.7	77.9	80.4	92.9	15.9	30.9	33.9	28.4

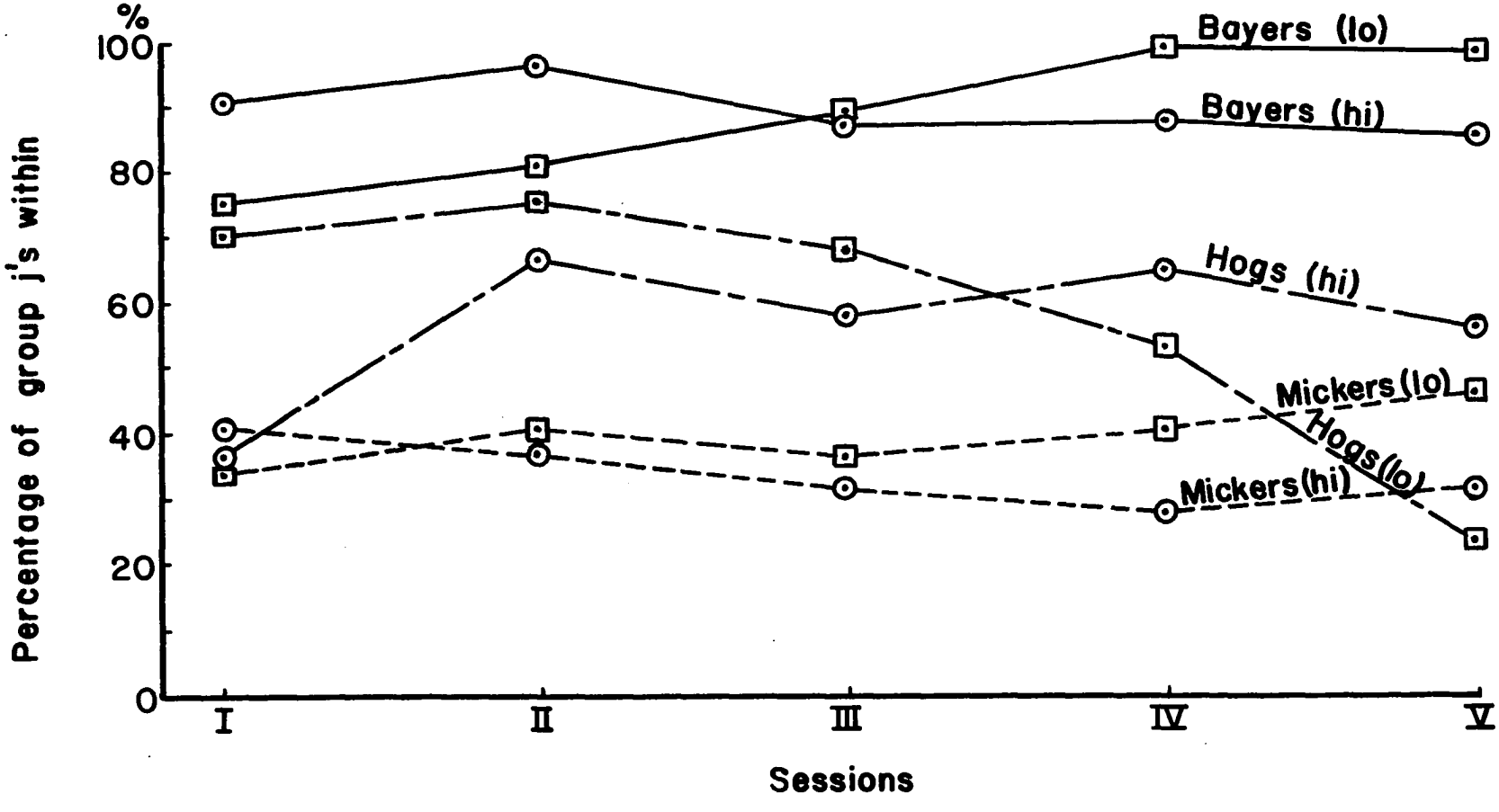


Fig. 6. Percentages of judgments within prescribed arbitrary norm of low solidarity groups under conditions of high (hi) and low (lo) status member arbitrariness.

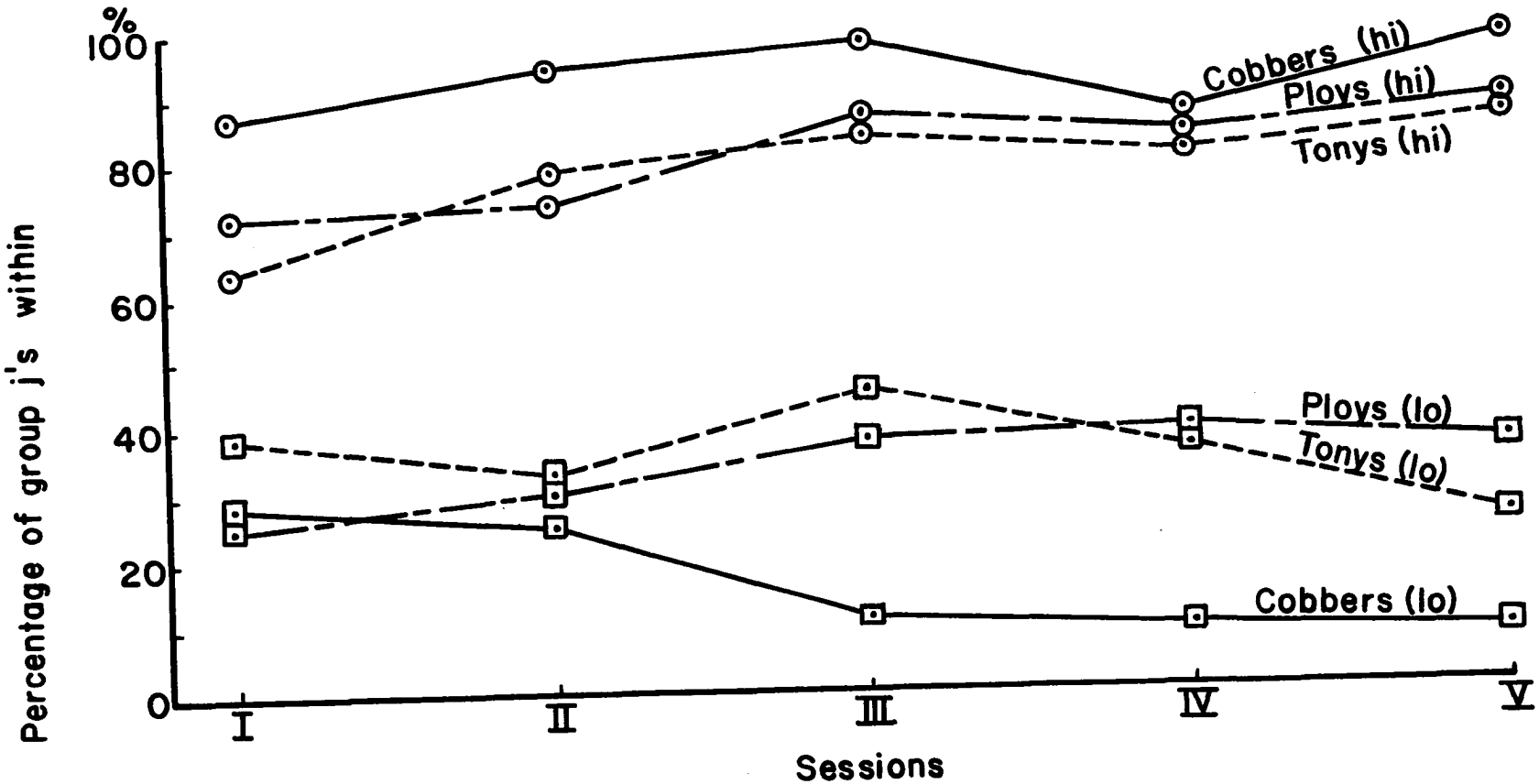


Fig. 7. Percentages of judgments within prescribed arbitrary norm of high solidarity groups under conditions of high (hi) and low (lo) status member arbitrariness.

Table 7

Comparison of Conformity Measures -- Percent of Group Norm

Judgments Within the Prescribed Arbitrary Norm Range

Solidarity	Status Arbit.	%w/in*		Solidarity	Status Arbit.	%w/in*	Z**	P <
H	hi	82.9	vs	L	hi	48.7	4.848	.0001
H	lo	28.4	vs	L	lo	59.5	4.443	.0001
H	hi	82.9	vs	H	lo	28.4	7.250	.0001
L	hi	48.7	vs	L	lo	59.5	-2.980	.001
H	hi	82.9	vs	L	lo	59.5	3.286	.001
H	lo	28.4	vs	L	hi	48.7	3.286	.001

*Including indoctrinated member
**Tests of correlated and non correlated proportions (Edwards, 1960)

Table 8

Means of Group Sessions with a High Status Member

Indoctrinated with a Prescribed Norm of

Mean 15"; Range 12"-18"(AK)

Mean 150; Range 135-165(SG)

	High Solid Groups				Low Solid Groups			
Judgment Situation: Sessions	SG* Cobbers	AK Tonys	AK Ploys	Weighted $\bar{X}$ of H/hi $\bar{X}$s	AK Mickers	SG* Hogs	SG* Bayers	Weighted $\bar{X}$ of L/hi $\bar{X}$s
I	14.6	13.6	16.0	14.95	9.7	10.2	14.2	10.63
II	14.6	15.8	15.0	15.25	10.8	13.6	14.8	12.27
III	15.6	15.7	15.6	15.64	10.3	12.6	15.8	12.95
IV	15.0	15.1	16.2	15.65	9.6	13.6	16.0	11.82
V	15.4	14.4	16.3	15.25	8.7	12.2	16.6	11.05
VI	15.0			15.00		12.6	17.4	14.47
VII	15.8			15.80			18.0	18.00
Overall	15.4	14.9	15.8	15.42	9.2	12.4	16.2	11.67

*For purposes of comparison AK = (SG - 75)/5

Table 9

Means of Group Sessions with a Low Status Member

Indoctrinated with a Prescribed Norm of

Mean 15"; Range 12"-18"(AK)

Mean 150; Range 135-165(SG)

	High Solid Groups				Low Solid Groups			
Judgment Situation: Sessions	AK Cobbers	SG* Tonys	SG* Ploys	Weighted $\bar{X}$ of H/lo $\bar{X}$s	SG* Mickers	AK Hogs	AK Bayers	Weighted $\bar{X}$ of L/lo $\bar{X}$s
I	9.5	10.8	11.6	10.59	11.2	13.6	13.8	12.98
II	9.0	10.6	15.6	11.93	11.4	13.1	15.4	13.34
III	8.5	11.0	15.6	11.81	10.8	12.4	14.9	12.74
IV	8.3	10.2	17.4	12.28	11.6	11.2	15.1	12.55
V	8.4	9.0	17.4	12.08	12.4	9.0	15.1	11.91
VI		7.2		7.20	11.8			11.80
Overall	8.7	9.8	15.6	11.58	11.6	11.8	14.9	12.67

*For purposes of comparison AK = (SG - 75)/5

Table 10

Medians of Group Sessions with a High Status Member

Indoctrinated with a Prescribed Norm of

Median 15"; Range 12"-18"(AK)

Median 150; Range 135-165(SG)

	High Solid Groups				Low Solid Groups			
Judgment Situation:	SG*	AK	AK		AK	SG*	SG*	
Sessions	Cobbers	Tonys	Ploys	Avg. Mdn. H/hi	Mickers	Hogs	Bayers	Avg. Mdn. L/hi
I	15.0	14.0	16.0	15.0	10.5	11.0	15.0	12.2
II	15.0	16.0	15.0	15.3	10.0	14.0	15.0	13.0
III	15.0	16.0	16.0	15.7	10.0	13.0	16.0	13.0
IV	15.0	15.0	16.0	15.3	9.0	14.0	16.0	13.0
V	15.0	14.0	16.0	15.0	10.0	13.0	17.0	13.3
VI	16.0			16.0		13.0	17.5	15.2
VII	16.0			16.0			18.0	18.0
Overall	15.0	15.0	16.0	15.3	10.0	13.0	16.0	13.0

*For purposes of comparison AK = (SG - 75)/5

Table 11

Medians of Group Sessions with a Low Status Member

Indoctrinated with a Prescribed Norm of

Median 15"; Range 12"-18"(AK)

Median 150; Range 135-165 (SG)

	High Solid Groups				Low Solid Groups			
Judgment Situation:	AK	SG*	SG*		SG*	AK	AK	
Sessions	Cobbers	Tonys	Ploys	Avg. Mdn. H/lo	Mickers	Hogs	Bayers	Avg. Mdn. L/lo
I	10.0	11.0	10.0	10.3	11.0	14.0	14.0	13.0
II	8.0	10.0	15.0	11.0	11.5	13.0	16.0	13.5
III	8.0	7.0	15.0	10.0	11.0	12.0	15.0	12.7
IV	8.0	10.0	17.0	11.7	11.0	12.0	15.0	12.7
V	8.0	9.0	18.0	11.7	13.0	9.0	15.0	12.3
VI		7.0		7.5	12.5			12.5
Overall	8.0	10.0	15.0	11.0	11.0	12.0	15.0	12.7

*For purposes of comparison AK = (SG - 75)/5

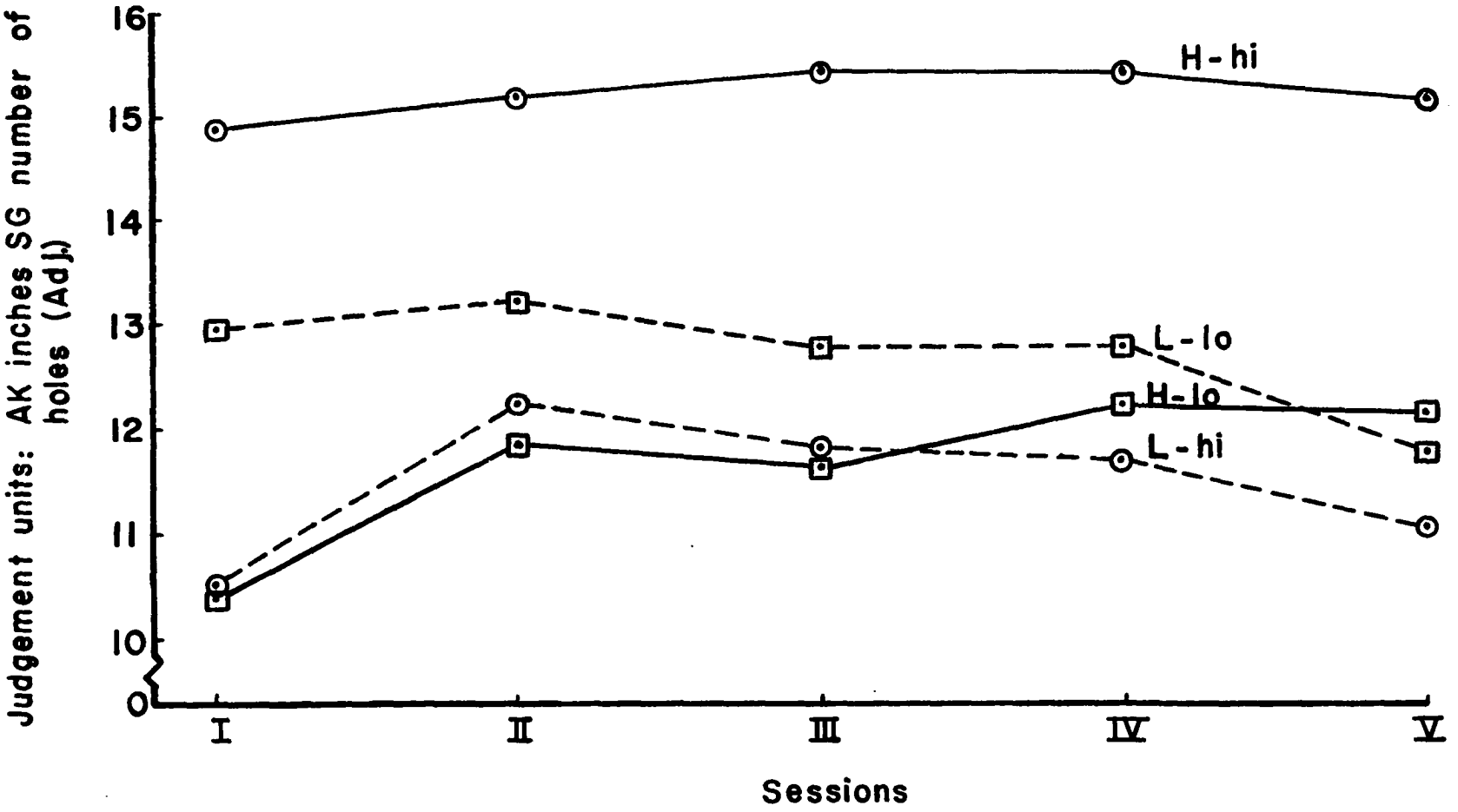


Fig. 8. Weighted means of high (H) and low (L) solidarity groups with high (hi) and low (lo) status arbitrariness in norm formation. SG data adjusted, AK = (SG-75)/5.

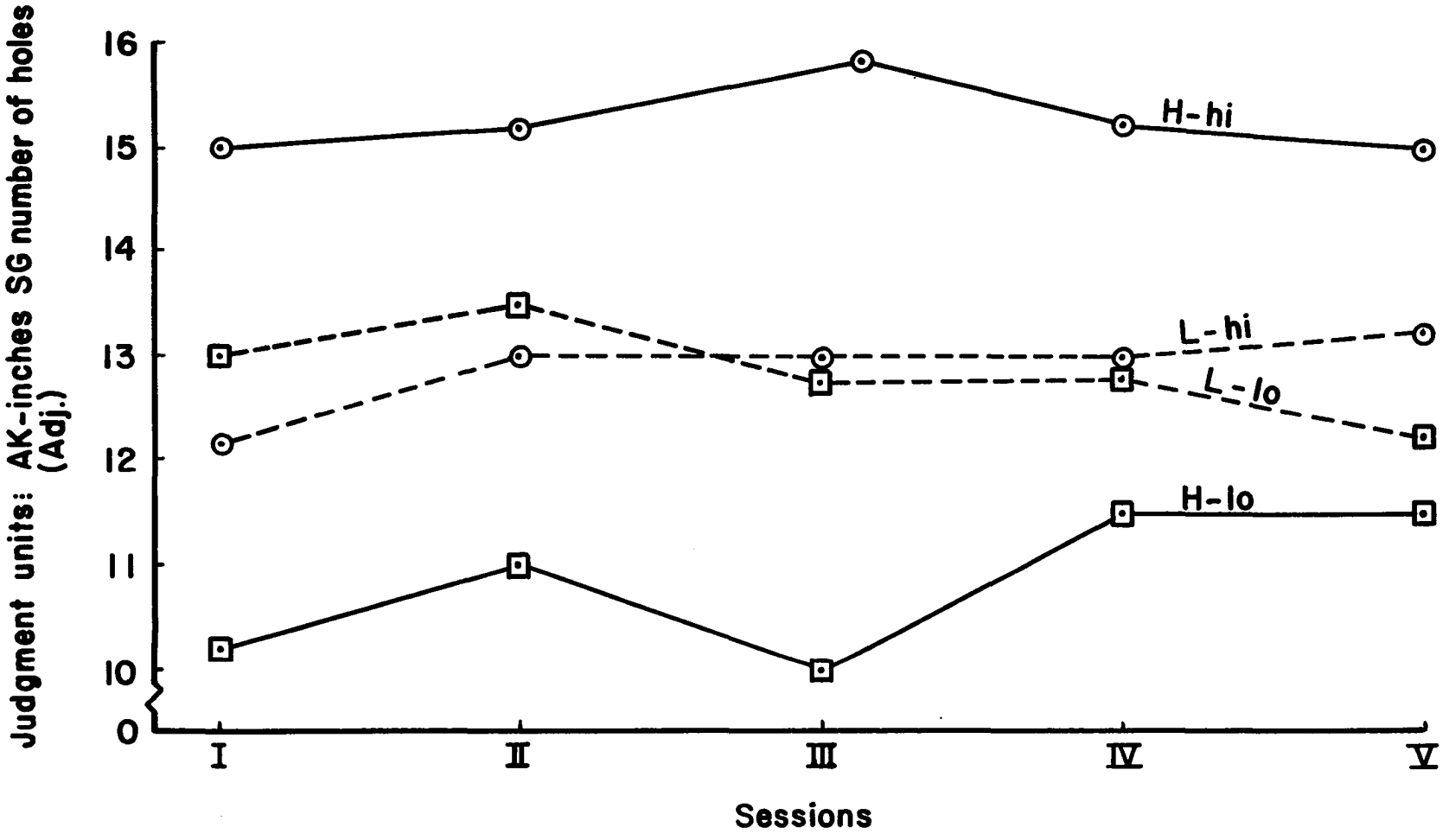


Fig. 9. Average medians of high (H) and low (L) solidarity groups with high (hi) and low (lo) status member arbitrariness in norm formation. SG data adjusted: AK = (SG - 75)/5.

Table 12

Comparison of Means of Group Norms Formed Under Conditions of High and Low Group Solidarity with High and Low Status Introduced Arbitrariness

Solidarity	Status Arbit.	$_{w}\bar{X}$		Solidarity	Status Arbit.	$_{w}\bar{X}$	U	P <
H	hi	15.4	vs	L	hi	11.7	44	.01
H	lo	11.6	vs	L	lo	12.7	71	.05
H	hi	15.4	vs	H	lo	11.6	46	.01
L	hi	11.7	vs	L	lo	12.7	104	NS
H	hi	15.4	vs	L	lo	12.7	24	.001
H	lo	11.6	vs	L	hi	11.7	82	NS

*Mann-Whitney U test of group norm means by sessions (Siegel, 1956)

medians of H solidarity group norms formed under hi arbitrariness were approximately the same as the means and medians of the prescribed arbitrary norm (Tables 8 and 10, Figures 8 and 9). Conformity of H group norms formed under hi member arbitrariness to the arbitrary norm, as indicated by the percentage of member judgments within the prescribed arbitrary norm range, is shown in Tables 3 and 6, Figures 5 and 7. The overall percentage of judgments within the prescribed norm range, for all H groups with hi members, was 78.0% (hi members, 98.2% within, judgments excluded). The degree of conformity of H group norms under hi member arbitrariness to the prescribed arbitrary norm, as indicated by these data, was high and support hypothesis 4 (a).

Hypothesis 4 (b). It was predicted that H solidarity group norms formed with hi member introduced arbitrariness would be more arbitrary than H group norms formed with lo member introduced arbitrariness. Table 7 and Table 12 show that both by comparison of means and comparison of percent of judgments within the prescribed arbitrary range, the differences are significant. Figures 5, 7, 8, and 9 show these relationships.

Hypothesis 4 (c). H solidarity group norms formed with hi member introduced arbitrariness were predicted to be more arbitrary than norms formed under either hi or lo member arbitrariness in L solidarity groups. Tables 7 and 12 show that both in differences in means and differences in percentage of judgments within the prescribed arbitrary

norm the prediction is supported. Figures 5, 8, and 9 graphically present these relationships.

Hypothesis 5 (a). It was predicted that H solidarity group norms formed with lo member introduced arbitrariness would differ from the prescribed arbitrary norm in terms of both central focus and latitude. Table 12 indicates that the means formed under H with lo conditions are significantly different from means of norms formed under H with hi. Table 7 shows that there is a highly significant difference in the proportion of the judgments given under H with lo conditions and those given in H with hi formed norms. Both typicality and conformity differences were in the direction of the natural norm, as predicted. These relationships are graphically portrayed in Figures 5, 7, 8, and 9.

Hypothesis 5 (b). H solidarity group norms formed with lo member introduced arbitrariness were predicted to be less arbitrary, in both central focus and arbitrariness, than norms formed in L solidarity groups under either hi or lo member introduced arbitrariness. Figures 5, 8, and 9 show these differences. Differences in norms formed under conditions of H with lo and L with lo were significant both in regard to means and percent of judgments within the arbitrary range. Differences between norms formed under H with lo and L with hi were significant only in regard to the percent of judgments within the prescribed arbitrary range. Differences in means were not significant (Tables 7 and 12). This failure to find the predicted difference between H with lo and L with hi norm

means while finding the predicted difference in conformity (latitude) measures will be discussed in the following chapter.

Hypothesis 6 (a). It was predicted that L solidarity groups norms formed with hi member arbitrariness would be less arbitrary than norms formed by H solidarity groups under hi member introduced arbitrariness. It is evident from the analysis summarized in Tables 7 and 12 that this prediction of L/hi arbitrariness being less than that of H/hi is supported by differences in both conformity to the prescribed range measures, and in the differences between norm means. This hypothesis further predicted that L solidarity group norms formed under hi member arbitrariness would be more arbitrary than H solidarity group norms formed under lo member arbitrariness. The differences in both typicality measures (means) and conformity measures (% w/in arbitrary), as shown in Tables 7 and 12, support the hypothesis. Figures 5, 8, and 9 present these relationships.

Hypothesis 6 (b). This hypothesis predicted there would be no difference in the degree of arbitrariness of L solidarity group norms formed under hi and lo member arbitrariness. The percent within the arbitrary range measures do not support the prediction (Table 7). The means of the referred to norms reflect the predicted lack of differences (Table 12). The differences found in both conformity and central focus measures were in opposite directions from what might be expected. Norms formed under hi member arbitrariness were lower, less arbitrary, by both measures

than those formed under lo member arbitrariness. Table 2 indicates that 2 of the 3 L groups had these seemingly reversed hi and lo condition norms. This apparent discrepancy will be discussed in the following chapter.

The results of the Wilson (1956) test for interaction summarized in Table 4 supports the thesis of this study. The highly significant interaction effect, indicated by the test, substantiates the general impression of the experimental results. The experimental results as a whole indicate there is a direct relation between status and solidarity in determining group member power in norm formation.

CHAPTER V

SUMMARY AND DISCUSSION

Differences in power to impose arbitrariness on emerging group norms in experimental judgment situations, through individual arbitrary norms of high and low status members, were investigated. These status power differences were studied in high and low solidarity natural groups. It was determined that, within the defined conditions for this study, the solidarity of a group has a direct effect on the relative power, in norm formation, of high and low status members.

In groups of low solidarity no predictable difference in the power of low and high status members was found when norms were compared in terms of both focus and latitude (mean and range). In high solidarity groups distinct differences in low and high status member power in norm formation were obvious.

To determine the relative power of high and low status members in the same group, two analogous experimental norm formation judgment situations were used. The classic autokinetic situation developed by M. Sherif (1935) adapted readily to natural group experimental norm formation. Status related arbitrariness was introduced by means of a selected

member presenting judgments based on his own individual arbitrary norm which he had internalized through previous indoctrination sessions with four experimenter collaborators.

In order to determine the relative power of a second member of the same group, a second experimental group judgment situation was developed. A shotgun range on which group members fired at moving targets, and then judged the numerosity of mock shot patterns (which they believed they had just shot) briefly projected on a screen, was built and used. Extensive pretesting determined optimal conditions and patterns for natural norms of numerosity estimation, comparable by a reduction formula to the autokinetic judgment norms.

Non-participant observers, who matched the groups studied in relation to socio-economic and ethnic factors, were trained in the techniques of field observation developed by the Sherifs (1964). From two to seven months of field observation enabled determination of the status structure and the relative solidarity of the six natural groups which participated in the experimental phase of this study. Groups were classified by three judges, including the observers and the researcher, as high or low solidarity groups.

Group members were unaware of their being studied and volunteered to participate in the experiments for the purpose of earning money for group activities. The experiments were purportedly psychophysical studies for space program and military research projects, aimed at

determining how accurately humans can estimate distances of movement and, at a glance, the number of things shown.

A selected group member of the desired status was induced into the experimental indoctrination situation 24 hours prior to his group's scheduled participation. This was accomplished by an offer of five "easy" dollars for taking the place of a college student who was scheduled but unable to be present for an experiment.

Discussion of Experimental Results

Indoctrination. The lack of difficulty in obtaining conformity by the selected group member to the prescribed arbitrary norm, during indoctrination, attests to the ambiguous nature of the stimulus situations and the moderate arbitrariness of the prescribed norms. Although relatively unstructured, the judgment situations conveyed a sufficient degree of reasonableness regarding the judged aspect to preclude random guessing or giving up trying to do the task. No indoctrinated (or other) group member indicated he felt the judgment tasks to be impossible.

Introducing arbitrariness in an experimental social norm judgment situation by means of an indoctrinated member has methodological advantages. When a subject, a group member, is convinced that the way he perceives the stimuli is really the way they are, there is no need for creating unrealistic differences among members' judgments by means of trick apparatus. Such devices are liable to be either discovered or suspected. The resemblence between indoctrinated member arbitrariness

in experimental norm formation sessions and member differences in group, real-life, interpersonal interaction introduces realism sorely missing in many experiments.

The results of indoctrination show that high status members, in general, adhere to the plant presented arbitrary norm, during indoctrination sessions, more than low status members. One possible implication is that the high status members of the natural groups tested adapted, responded more quickly to social structure, in situations which were relatively unstructured regarding the judgment task. A greater sensitivity and response to interpersonal social factors, in otherwise unstructured situations, would be highly adaptive in the everyday situations involved in acquiring high status in a natural group.

The greater judgment variability of low status members in indoctrination sessions imply a tendency to resort, not to the only strongly structured portion of the situation, the social (judgments of plants), but to internal distance and numerosity reference scales, which were unreliable and ambiguous in these situations. Since adaptive perception in complex, ambiguous, social situations is dependent on sensitivity to cues provided by the social structure, this apparent status related difference in tendency to comply to non-group related social pressure warrants further investigation.

Arbitrariness. All norms formed under the influence of experimentally introduced arbitrariness in this study (excluding the natural

norm) were arbitrary to some degree. The least arbitrary norms, formed by the high solidarity groups under the condition of low status member introduced arbitrariness, were still distinctly arbitrary, i.e., distinct from the natural norm. This norm arbitrariness may be attributed to the indoctrinated member's (regardless of status) having some prestige, being credited with some "expertness," by virtue of his previous experience in the situation. In addition, when norm formation situations are as unstructured as the ones used, any discordant part of the context, social or physical, tends to increase uncertainty and result in higher and more varied judgments. Since differences in norms formed under the experimental conditions were measured and analyzed relative to conformity to a prescribed degree of arbitrariness and to each other, the natural norm was critical only in initially determining a distinct, yet reasonable, degree of arbitrariness for the prescribed arbitrary norm.

The results of this study suggest that an individual's, non-status imposed, situational contributions to structuring ambiguous stimuli are most effective in low solidarity groups. Aggressiveness, persistence, loudness, self-certainty, variability, and other individual behavior patterns or acquired mannerisms--possibly related to striving for status--have an effect when status structure is not a weighty factor in the situation.

There is an implication in the results that unrealistic attitudes, in reference to unstructured social stimulus situations, are readily imposed

on individuals who are members of high solidarity groups through high status member conviction.

Effects of Skew. The prediction, hypothesis 6 (b), that low status introduced arbitrariness in low solidarity groups would lead to similar degrees of norm arbitrariness was only partly substantiated. There was no significant difference found by analysis of the means of low solidarity group norms. When analysis was made by comparison of percentages of judgments within the prescribed arbitrary range, however, low status arbitrariness resulted in more arbitrary norms than high status introduced arbitrariness.

The skew of low solidarity group norms formed under both conditions of introduced arbitrariness tended to be slightly negative. These negative skews were to be expected when the effect of arbitrariness, assumedly the same when introduced by high or low status members in low solidarity groups, is pictured as introducing an anchorage beyond the outer limit of the natural norm range. This anchorage is clearly within the assimilation range, or there would have been no upward norm shifts under the experimental conditions of member arbitrariness.

Analysis of mean differences involved comparison of these norm measures among the low solidarity norms only, not in reference to the prescribed arbitrary norm or its lower limit. Comparison of conformity was based on the norms' relation to each other in terms, primarily, of their relation to the prescribed arbitrary norm (and its lower limit).

Tables 8-11 show the means and medians of the norms formed under low and high status arbitrariness in low solidarity groups. The mean to median differences, (low status, -0.03; high status, -1.33) reflect, as expected, differing negative skews. The positional relations of the means and medians of the two conditions are: high status mean (11.67), low status mean (12.67), low status median (12.70), high status median (13.00). The lower limit of the prescribed arbitrary range is 12.00 and lies above the high status mean and below the other means and medians. These mean-median lower prescribed limit sequential positional relations, considered with the greater negative skew of the high status distribution, clearly result in lack of mean based measure differences and significant difference in conformity to the prescribed range measures.

The prediction of hypothesis 5(b) that there would be a difference between the norms formed under conditions of high solidarity-low status and low solidarity-high and low status was only partially supported. Differences between high solidarity-low status and low solidarity-low status were found both by measures of conformity and by measures of central focus. A significant difference was also found between high solidarity-low status and low solidarity-high status conditions in relation to conformity measures. No difference was found between the means under these latter conditions.

It would be expected, if the low status members of high solidarity

groups had less power than either high or low status members of low solidarity groups, that their distortion of the norm distribution would be less and skews formed under low status-high solidarity conditions would show, in terms of skew, less anchorage-assimilation effects, i. e., less negative skew. This is the case. Low solidarity group-low status influenced norms tend to be positively skewed.

The mean-median-lower prescribed arbitrary range limit sequential positional relations are: high solidarity-low status median (11.00), mean (11.58), lower limit of prescribed arbitrary range (12.00), low solidarity-low status mean (12.67), median (12.70). The opposing skews of the norms involved, the lower located norm positively skewed and the higher located norm negatively skewed, displaces the means of each in the direction of the skew and therefore toward each other, resulting in a lack of significant differences. The same skews displace the greater quantities of each of the distributions to opposite sides of the lower limit of the prescribed range, resulting in conformity differences.

Suggested Research

The scope of this research was restricted by the limited money, time, and personnel available for the work. These factors reduced the number of natural groups available for replicating the experimental conditions. On the other hand, the intent was to be exploratory, to develop new, and expand other, methods for studying the effect of social factors in perception and norm formation. To this end the study was not

designed to be exhaustive, but rather to outline some of the dimensions involved in power relations among small informal group members.

Solidarity Measurement. There is a need to develop a measuring method which will give a quantified measure of natural group solidarity. Present methods, as discussed in Chapter II, are not realistically applicable to natural group studies. In addition, they do not adequately discriminate differences in degrees of solidarity. The dichotomous, high and low, classification used in this study was adequate for present purposes. Further investigation of the interrelated effects of aspects of group structure would benefit by a method enabling finer rankings of groups according to solidarity.

The methods used in this research to measure the effect of status position arbitrariness could, conceivably, be used to determine solidarity when status rank is known. This method would, however, entail experimental judgment sessions which would limit its practical use in the majority of field studies.

Norm Formation Judgment Situations. A limiting factor in the present study was the impracticality of studying experimental norm formation under more than two conditions of status arbitrariness in any one group. To study the effects of status position in relation to different social factors a number of judgment situations, similar to the autokinetic and shotgun situations, are needed. In addition to being merely adequate norm formation judgment situations, the additional methods should

preferably be interesting to the group members and enable introduction of a controllable degree of ego-involvement. Observation of the interest displayed by group members while participating in the shotgun situation suggested the possibility of using modified pinball machines (auditory and visual judgment stimuli possibilities), and other amusement center type devices.

Factors in Attitude Formation and Change. It is apparent that power must be considered in relation to status and solidarity. Other internal attitudinal and external social factors must be integrated into both theoretical concepts and empirical substantiations before the power dimension, in terms of psychological structure and related behavior, is more fully understood.

Ego-involvement as a factor in determining the nature of behavior by particular status members, leading to imposition of individual ideas and perception, needs investigation. Study of ego-involvement as a negator, or facilitator, of status position power likewise offers one means of increasing our knowledge in the area of social persuasion. The relationship of this area of investigation to that of attitude scaling, especially in regard to latitudes of acceptance and rejection (Sherif & Hovland, 1961) is also pertinent. This tie-in is essential since social norms are, at the psychological level of analysis, composed of the individual attitudes of the group members.

The study of status-solidarity-power relations offers possibilities

of extending our understanding of the influence of general societal norms, i.e., attitudinal systems common to most individuals in a culture. Differing degrees of group structure, and conditions in which group structure is minimized or non-existent, including collective behavior situations, offer almost unlimited opportunities to study the psychological processes involved in attitude formation, persistence, and change.

An area of investigation more directly related to the methods used in this study is that of disguised, structured sociogramming. The shotgun situation, when the identity of the shooter of specific targets is known to group members, offers possibilities for norm formation study and group status structure determination in the same judgment sessions. This use of the shotgun situation was not investigated in this study because of the need to match results with those of the autokinetic situation. Group norms formed by judging member identified targets would consist of overlapping ranges of judgments, determined in part by skill evaluations of participating members according to status rank. Such a technique shows promise of providing status rankings and quantified measures of solidarity.

Resumé

In situations which are not highly structured, all interacting group members are influenced to some degree by the behavior of the others. In groups which are highly important to the members, however, each member's behavior does not have equal weight in determining the nature

of a group norm. The degree of the relative influence of a group member in a specific status rank appears to be determined, to a large extent, by the solidarity of the group.

Differences in power to impose arbitrariness on emerging group norms in experimental judgment situations through individual arbitrary norms of high and low status members were investigated. Status power differences were studied as they are affected by high and low solidarity in natural groups of teenage boys. A selected, high or low status, member of a group which had been previously observed, status structured, and classified as high or low solidarity, was indoctrinated in judgment sessions with "plants" to perceive the judgment situations arbitrarily.

The arbitrariness of the prescribed norm with which the member was indoctrinated consisted of a range and mode of judgments that diverged from those of the natural norm for the situation. Judgment situations were the classic autokinetic situation introduced by M. Sherif and a "shotgun situation" developed in this study in which group members shot at moving paper targets and judged numerosity of shot patterns on mock targets briefly projected on a screen.

When natural group members interact during norm formation in judgment situations with high or low status member introduced arbitrariness it was predicted:

1. High solidarity group-leader arbitrariness leads to arbitrary group norms.

2. Low solidarity group-leader arbitrariness leads to less arbitrary group norms.

3. Low solidarity group-low status member arbitrariness leads to group norms approximately as arbitrary as those with low solidarity-leader arbitrariness.

4. High solidarity group-low status member arbitrariness leads to norms less arbitrary than those formed under leader arbitrariness in such groups or those formed under leader or low status arbitrariness in low solidarity groups.

It was determined that, within the defined conditions for the study, the solidarity of a group had a direct effect on the relative power in norm formation of high and low status members. In groups of low solidarity no predictable differences in low and high status member power in norm formation were apparent. In groups of high solidarity, leader introduced arbitrariness led to norms which were more arbitrary than norms formed under either condition in low solidarity groups. Low status member introduced arbitrariness in high solidarity groups led to group norms less arbitrary than those formed under leader arbitrariness in such groups and less arbitrary than norms formed under either condition in low solidarity groups.

REFERENCES

Adair, J. J. A study of culture resistance: the veterans of World War II at Zuni Pueblo. In B. J. Siegel (Ed.) Acculturation: critical abstracts, North America. Stanford: Stanford University Press, 1955.

Barnett, H. G. Innovation. New York: McGraw-Hill, 1953.

Bass, B. M., & Wurster, C. R. Effects of company rank of LGD performance of oil refinery supervisors. Journal of Applied Psychology, 1953, 37, 100-104.

Bird, C. Social psychology. New York: Appleton-Century, 1950.

Bovard, E. W., Jr. Social norms and the individual. Journal of Abnormal and Social Psychology, 1948, 43, 62-69.

Buchanan, J. S., & Dale, E. E. A history of Oklahoma. Evanston, Ill.: Row, Peterson, 1924.

Carter, L. F. Leadership and small group behavior. In M. Sherif & M. O. Wilson (Eds.) Group relations at the crossroads. New York: Harper, 1953.

Cartwright, D., & Zander, A. (Eds.) Group dynamics, research and theory. Evanston, Ill.: Row, Peterson, 1953.

Cattell, R. B., Saunders, D. R., & Stice, G. F. The dimensions of syntality in small groups. Human Relations, 1953, 6, 331-336.

Cleland, H. George Washington in the Ohio valley. Pittsburgh: University of Pittsburgh Press, 1955.

Edwards, A. Experimental design in psychological research. (Rev. ed.) New York: Holt, Rinehart & Winston, 1960.

Eisman, B. Some operational measures of cohesiveness and their correlations. Human Relations, 1959, 12, 183-189.

Festinger, L., Riecken, H. W., & Schachter, S. When prophecy fails. New York: Harper & Row, 1956.

Freeman, D. S. George Washington, a biography. Vol. 1. Young Washington. New York: Scribner, 1948.

Gibb, C. A. Leadership. In G. Lindzey (Ed.) Handbook of social psychology. Cambridge, Mass.: Addison-Wesley, 1954.

Gouldner, A. (Ed.) Studies in leadership. New York: Harper, 1950.

Gross, N., & Martin, W. On group cohesiveness. American Journal of Sociology, 1952, 57, 533-546.

Gruen, W. A contribution toward understanding of cohesiveness in small groups. Psychological Reports, 1965, 17, 311-322.

Guilford, J. P. Fundamental statistics in psychology and education. (4th ed.) New York: McGraw-Hill, 1965.

Hardyck, Jane, & Braden, Marcia. Prophecy fails again. Journal of Abnormal and Social Psychology, 1962, 65, 36-41.

Hare, A. P. Handbook of small group research. New York: Free Press of Glencoe, 1962.

Harvey, O. J., & Consalvi, C. Status and conformity to pressures in informal groups. Journal of Abnormal and Social Psychology, 1960, 60, 182-187.

Haythorn, W. The influence of individual members on the characteristics of small groups. Journal of Abnormal and Social Psychology, 1953, 48, 267-284.

Heyns, R. W., & Lippitt, R. Systematic observational techniques. In G. Lindsey (Ed.) Handbook of social psychology. Cambridge: Addison-Wesley, 1954.

Hood, W. R., & Sherif, M. Verbal report and judgment of an unstructured stimulus. Journal of Psychology, 1962, 54, 121-130.

Hurwitz, J. R., Zander, A. F., & Hymovitch, B. Some effects of power on the relations among group members. In D. Cartwright & A. Zander, (Eds.) Group dynamics. Evanston, Ill.: Row, Peterson, 1953.

Jacobs, R. C., & Campbell, D. T. The perpetuation of an arbitrary tradition through several generations of a laboratory microculture. Journal of Abnormal and Social Psychology, 1961, 62, 649-658.

Janowitz, M. The new military: the changing pattern of organization. New York: Russell Sage Foundation, 1964.

Kaufman, E. L., Lord, M. W., Reese, R. M., & Volkmann, J. The discrimination of visual number. American Journal of Psychology, 1949, 62, 498-525.

Ketchum, R. M. (Ed.) The American heritage picture history of the Civil War. New York: American Heritage, 1960.

Kinkead, E. In every war but one. New York: Norton, 1959.

Kitawaki, M. On the quantification of group cohesiveness in industrial society by sociometric test. Japanese Journal of Psychology, 1956, 26, 386-392.

Koslin, B. L. Preliminary experiments on the process of norm and attitude change during collective behavior. Unpublished doctoral dissertation, University of Oklahoma, 1963.

Lott, A. J., & Lott, B. E. Group cohesiveness, communication level, and conformity. Journal of Abnormal and Social Psychology, 1961, 62, 408-412.

MacNeil, M. K. Persistence and change of norms established under differing arbitrary conditions. Unpublished master's thesis, University of Oklahoma, 1964.

Mauldin, B. Up front. New York: Holt, 1945.

Murphy, G., & Murphy, Lois B. Experimental social psychology. New York: Harper, 1931.

Pollis, N. P. Relative stability of reference scales formed under individual, togetherness, and group situations. Unpublished doctoral dissertation, University of Oklahoma, 1964.

Roseborough, M. E. Experimental studies of small groups. Psychological Bulletin, 1953, 50, 275-303.

Sanford, F. The follower's role in leadership phenomena. In G. Swanson, T. Newcomb, & E. Hartley. (Eds.) Readings in social psychology. New York: Holt, 1952, 328-340.

Sherif, M. A study of some social factors in perception. Archives of Psychology, New York, 1935, 27, No. 187.

Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, Carolyn. Intergroup conflict and cooperation: the Robbers Cave experiment. Norman, Okla.: Institute of Group Relations, University of Oklahoma, 1961.

Sherif, M., & Hovland, C. I. Social judgment. New Haven: Yale University Press, 1961.

Sherif, M. & Sherif, Carolyn. An outline of social psychology. (Rev. ed.) New York: Harper & Row, 1956.

Sherif, M., & Sherif, Carolyn. Reference groups. New York: Harper & Row, 1964.

Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill, 1956.

Thomas, Dorothy S. An attempt to develop precise measurement in the social behavior field. Sociologus, 1933, 9, 1-21.

Torrance, E. P. Some consequences of power differences on decision making in permanent and temporary three-man groups. In A. P. Hare, E. F. Borgatta, & R. F. Bales (Eds.), Small Groups, New York: Knopf, 1965, 600-609.

Tuchman, Barbara W. The guns of August. New York: Macmillan, 1962.

Vogt, E. Z. Navaho veterans, a study of changing values. In B. J. Siegel (Ed.) Acculturation: critical abstracts, North America, Stanford: Stanford University Press, 1955.

Volkmann, J., Hunt, W. A., & McGourty, M. Variability of judgment as a function of stimulus density. American Journal of Psychology, 1940, 53, 277-284.

Webb, W. P. The Texas Rangers. Boston: Houghton Mifflin, 1935.

Whyte, W. F. Street corner society. Chicago: University of Chicago, 1943.

Wilson, K. A distribution-free test of analysis of variance hypotheses. Psychological Bulletin, 1956, 53, 96-101.

Yablonski, L. The violent gang. New York: Macmillan, 1962.

APPENDICES

APPENDIX A

FREQUENCY DISTRIBUTIONS OF INDOCTRINATED GROUP MEMBERS IN INDOCTRINATION SESSIONS

High Status Member - Low Solidarity Group (Mickers)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
12	1	0	1	0	1	3
13	4	4	1	2	0	11
14	4	3	8	8	8	31
15	8	10	15	12	6	51
16	9	10	3	7	4	33
17	4	2	2	1	1	10
18	0	1	0	0	0	1

Low Status Member - Low Solidarity Group (Mickers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
120	1	0	0	0	0	1
125	0	0	0	0	0	0
130	0	2	1	1	0	4
135	1	0	0	0	0	1

Low Status Member - Low Solidarity Group (Mickers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
140	4	5	3	6	5	23
145	1	2	4	3	1	11
150	5	4	5	4	6	24
155	3	2	1	1	3	10
160	0	0	1	0	0	1
165	0	0	0	0	0	0

Low Status Member - Low Solidarity Group (Hogs)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
10	1	0	0	0	0	1
11	0	0	0	0	0	0
12	0	0	0	0	0	0
13	2	0	0	0	1	3
14	4	7	7	7	4	29
15	7	9	6	11	3	36
16	7	7	12	8	11	45
17	9	7	5	4	1	26

High Status Member - Low Solidarity Group (Hogs)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
135	1	2	0	2	1	6

High Status Member - Low Solidarity Group (Hogs)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
140	2	0	2	0	0	4
145	2	3	4	1	3	13
150	6	4	4	5	6	25
155	2	4	2	6	1	15
160	2	2	3	1	3	11
165	0	0	0	0	1	1

Low Status Member - Low Solidarity Group (Bayers)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
12	2	1	1	2	1	7
13	2	2	4	3	1	12
14	7	5	8	4	5	29
15	6	9	5	8	4	32
16	6	5	6	8	7	32
17	5	5	1	5	2	18
18	2	3	5	0	0	10

High Status Member - Low Solidarity Group (Bayers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
135	2	0	1	0	0	3
140	1	0	2	2	1	6

High Status Member - Low Solidarity Group (Bayers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
145	1	4	1	2	2	10
150	5	3	5	6	5	24
155	4	6	2	2	6	20
160	1	2	3	2	1	9
165	1	0	1	1	0	3

Low Status Member - High Solidarity Group (Cobbers)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
12	2	2	3	2	2	11
13	10	4	6	3	4	27
14	4	6	12	5	6	33
15	6	6	6	11	5	34
16	4	5	1	5	2	17
17	3	7	2	4	1	17
18	1	0	0	0	0	1

High Status Member - High Solidarity Group (Cobbers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
135	0	0	0	0	0	0
140	4	3	0	2	2	11
145	2	1	7	4	2	16

High Status Member - High Solidarity Group (Cobbers)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
150	5	7	4	5	6	27
155	3	3	4	4	4	18
160	1	1	0	0	1	3
165	0	0	0	0	0	0

High Status Member - High Solidarity Group (Tonys)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
12	3	1	4	2	1	11
13	4	0	2	5	2	13
14	4	6	6	4	4	24
15	11	12	10	7	6	46
16	8	9	4	10	5	36
17	0	2	4	1	1	8
18	0	0	0	1	1	2

Low Status Member - High Solidarity Group (Tonys)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
115	0	0	0	1	0	1
120	3	1	2	2	2	10
125	2	3	2	0	1	8
130	0	0	0	1	0	1

Low Status Member - High Solidarity Group (Tonys)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
135	1	2	1	2	2	8
140	5	1	0	2	1	9
145	0	1	3	1	4	9
150	2	2	0	1	2	7
155	1	1	1	2	1	6
160	0	3	3	0	1	7
165	1	1	2	1	1	6
170	0	0	1	2	0	3

High Status Member - High Solidarity Group (Ploys)

Sessions (AK)	I	II	III	IV	V	Total
X (Inches)						
12	2	2	1	1	0	6
13	5	2	2	2	3	14
14	10	5	10	11	7	43
15	5	10	7	8	5	35
16	5	10	9	8	3	35
17	0	1	1	0	0	2
18	3	0	0	0	2	5

Low Status Member - High Solidarity Group (Ploys)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
120	1	2	0	1	6	10

Low Status Member - High Solidarity Group (Ploys)

Sessions (SG)	I	II	III	IV	V	Total
X (Shot Holes)						
125	0	0	0	1	4	5
130	1	0	0	0	1	2
135	1	0	0	0	0	1
140	0	0	0	0	0	0
145	1	1	1	0	1	4
150	3	3	1	0	2	9
155	1	0	1	0	1	3
160	2	3	2	1	0	8
165	1	2	1	2	0	6
170	0	0	0	2	0	2
175	0	0	3	3	0	6
180	0	.0	3	3	0	6
185	0	0	2	1	0	3
190	0	0	0	1	0	1
195	0	1	1	0	0	2
220	0	1	0	0	0	1
250	3	2	0	0	0	5
255	1	0	0	0	0	1

Prescribed Indoctrination Frequency Distribution

AK	SG	f/20j's
12	135	1
13	140	2
14	145	4
15	150	6
16	155	4
17	160	2
18	165	1

Given in random order per 20 judgments by four plants during arbitrary norm indoctrination of selected status group members (modified to fit number of judgments per session in SG)

APPENDIX B

FREQUENCY DISTRIBUTIONS OF GROUP MEMBER JUDGMENTS IN AUTOKINETIC AND SHOTGUN SITUATIONS

High Status Member Indoctrinated - Low Solidarity Group (Mickers)

Session I (AK)

	Group Members in Order of Giving Judgments						
Rank**	4	3	5	1*	2	6	Total
X (Inches)							
1	0	1	0	0	0	0	1
2	1	1	0	0	0	0	2
3	2	1	3	0	0	0	6
4	4	2	2	0	0	0	8
5	2	5	1	0	3	1	12
6	3	0	1	0	4	0	8
7	5	2	0	0	3	3	13
8	1	1	2	0	7	1	12
9	2	2	1	2	1	2	10
10	3	4	2	5	2	2	18
11	0	2	0	0	2	1	5

*Previously indoctrinated member
**Status rank in group

Session I

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
12	2	3	1	10	2	5	23
13	1	0	5	3	1	1	11
14	1	1	0	4	0	1	7
15	0	1	5	3	1	7	17
16	0	1	1	3	1	1	7
17	0	2	0	0	2	0	4
18	0	1	4	0	1	0	6
20	2	0	2	0	0	5	9
22	1	0	0	0	0	0	1

Session II

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
1	2	0	1	0	0	0	3
2	1	2	0	0	0	0	3
3	7	2	0	0	1	1	11
4	4	2	2	0	1	0	9
5	6	1	1	0	1	2	11
6	1	0	1	0	2	0	4
7	6	4	0	0	6	0	16
8	1	2	6	2	6	1	18
9	0	1	2	1	0	0	4

Session II

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
10	1	2	1	6	5	5	20
11	0	2	0	0	0	0	2
12	0	2	1	7	3	1	14
13	0	4	3	2	0	5	14
14	0	1	1	5	1	0	8
15	0	2	3	5	2	7	19
16	0	1	0	2	1	0	4
17	0	1	1	0	1	1	4
18	0	0	3	0	0	0	3
19	0	1	3	0	0	0	4
20	1	0	1	0	0	7	9

Session III

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
1	5	0	0	0	0	0	5
2	5	0	1	0	0	0	6
3	6	0	1	0	1	0	8
4	4	1	0	0	1	0	6
5	2	3	3	0	0	4	12
6	0	2	1	0	4	1	8
7	3	5	1	0	3	1	13

Session III

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
8	0	4	10	2	5	0	21
9	0	2	3	1	3	1	10
10	3	1	4	4	4	3	19
11	0	2	0	2	2	0	6
12	0	4	0	8	3	3	18
13	0	3	0	2	4	1	10
14	0	0	0	7	0	1	8
15	2	1	2	3	0	10	18
16	0	1	0	0	0	0	1
17	0	0	0	1	0	0	1
18	0	1	0	0	0	1	2
19	0	0	1	0	0	0	1
20	0	0	3	0	0	4	7

Session IV

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
1	10	0	0	0	0	0	10
2	5	0	0	0	0	0	5
3	5	0	1	0	0	0	6
4	4	1	4	1	1	0	11
5	1	3	5	1	1	5	16

Session IV

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
6	0	3	0	1	4	0	8
7	2	5	0	0	2	2	11
8	0	3	6	4	8	0	21
9	0	4	2	3	2	2	13
10	1	3	2	6	2	9	23
11	1	2	0	1	0	0	4
12	1	1	1	8	5	5	21
13	0	0	0	2	1	0	3
14	0	1	4	3	2	0	10
15	0	1	2	0	1	6	10
16	0	2	0	0	1	1	4
17	0	1	0	0	0	0	1
18	0	0	1	0	0	0	1
19	0	0	1	0	0	0	1
20	0	0	1	0	0	0	1

Session V

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
1	11	0	0	0	0	0	11
2	8	1	0	0	0	0	9
3	3	0	1	0	0	0	4

Session V

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
4	5	2	1	0	0	0	8
5	1	1	4	0	3	1	10
6	1	1	0	0	3	0	5
7	0	3	0	1	3	0	7
8	0	4	7	4	4	0	19
9	0	2	2	2	2	2	10
10	1	0	4	6	6	11	28
11	0	4	1	0	1	2	8
12	0	3	3	6	4	7	23
13	0	1	1	2	3	2	9
14	0	3	1	4	1	0	9
15	0	1	1	4	0	5	11
16	0	2	0	1	0	0	3
17	0	0	0	0	0	0	0
18	0	0	3	0	0	0	3
19	0	2	1	0	0	0	3

Total Sessions

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
1	28	1	1	0	0	0	30
2	20	4	1	0	0	0	25

Total Sessions

Rank:	4	3	5	1*	2	6	Total
X (Inches)							
3	23	3	6	0	2	1	35
4	21	8	9	1	3	0	42
5	12	13	14	1	8	13	61
6	5	6	3	1	17	1	33
7	16	19	1	1	17	6	60
8	2	14	31	12	30	2	91
9	2	11	10	9	8	7	47
10	9	10	13	27	19	30	108
11	1	12	1	3	5	3	25
12	3	13	6	39	17	21	99
13	1	8	9	11	9	9	47
14	1	6	6	23	4	2	42
15	2	6	13	15	4	35	75
16	0	7	1	6	3	2	19
17	0	4	1	1	3	1	10
18	0	2	11	0	1	1	15
19	0	3	6	0	0	0	9
20	3	0	7	0	0	16	26
22	1	0	0	0	0	0	1

Low Status Member Indoctrinated - Low Solidarity Group (Mickers)

Session I (SG)

	Group Members in Order of Giving Judgments						
Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
70	0	0	0	1	0	0	1
75	0	2	0	1	0	0	3
80	1	0	0	1	1	0	3
85	0	0	0	0	0	0	0
90	2	0	0	1	1	0	4
95	0	0	0	0	1	0	1
100	1	1	0	5	0	4	11
105	0	0	0	0	1	0	1
110	2	1	0	0	2	2	7
115	1	0	0	0	2	0	3
120	0	3	1	1	1	2	8
125	0	2	0	0	1	0	3
130	2	2	5	0	2	5	16
135	0	0	0	0	1	0	1
140	0	2	3	0	3	0	8
145	0	1	4	1	0	0	6
150	2	3	1	4	1	3	14
155	1	0	1	0	1	0	3
160	2	0	2	0	0	0	4
165	0	0	1	0	0	0	1

Session I

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
170	0	0	0	1	0	2	3
175	2	1	0	1	0	0	4
200	1	0	0	1	0	0	2
360	1	0	0	0	0	0	1

Session II

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
60	0	0	0	0	1	0	1
65	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0
75	0	1	0	0	1	0	2
80	0	0	0	0	0	1	1
85	0	0	0	0	0	0	0
90	3	2	0	1	0	0	6
95	0	0	0	0	0	0	0
100	0	1	1	5	0	4	11
105	0	0	0	0	1	0	1
110	1	0	0	0	1	0	2
115	0	0	0	0	2	0	2
120	0	2	1	0	4	5	12
125	0	1	2	0	3	0	6

Session II

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
130	0	2	2	3	0	3	10
135	2	0	1	0	3	0	6
140	0	3	3	1	1	3	11
145	0	0	1	0	0	0	1
150	1	4	5	3	0	2	15
155	0	0	0	0	1	0	1
160	5	1	1	1	0	0	8
165	1	0	1	0	0	0	2
170	0	1	0	2	0	0	3
175	1	0	0	1	0	0	2
180	3	0	0	1	0	0	4
190	1	0	0	0	0	0	1

Session III

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
50	1	0	0	0	0	0	1
55	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0

Session III

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
80	1	0	0	0	0	0	1
85	0	0	0	0	1	0	1
90	1	0	0	3	0	1	5
95	0	0	0	0	1	0	1
100	1	4	2	4	0	2	13
105	0	0	0	1	1	0	2
110	1	0	0	0	2	2	5
115	0	0	0	0	3	0	3
120	0	4	3	0	2	5	14
125	0	0	1	0	0	0	1
130	1	4	2	2	1	4	14
135	0	0	0	0	2	0	2
140	0	3	3	3	2	1	12
145	0	0	2	0	2	0	4
150	4	2	5	1	1	3	16
155	0	0	0	0	0	0	0
160	4	1	0	1	0	0	6
165	0	0	0	0	0	0	0
170	0	0	0	2	0	0	2
175	0	0	0	0	0	0	0
180	4	0	0	1	0	0	5

Session IV

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
70	0	0	0	1	0	0	1
75	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0
90	2	0	0	1	0	1	4
95	0	0	0	0	1	0	1
100	0	2	3	4	0	1	10
105	0	0	0	0	1	0	1
110	0	0	0	0	3	1	4
115	2	0	0	0	1	0	3
120	0	1	3	2	2	2	10
125	2	0	0	1	1	0	4
130	1	3	4	2	2	6	18
135	1	0	0	0	1	0	2
140	0	4	3	1	2	2	12
145	0	0	2	0	3	0	5
150	1	4	1	3	1	5	15
155	1	0	1	0	0	0	2
160	1	3	1	2	0	0	7
165	2	0	0	0	0	0	2
170	0	0	0	1	0	0	1
175	3	1	0	0	0	0	4
180	2	0	0	0	0	0	2

Session V

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
70	0	0	0	2	0	0	2
75	0	0	0	0	0	0	0
80	0	0	0	0	0	1	1
85	0	0	0	0	1	0	1
90	0	1	0	1	0	0	2
95	0	0	0	0	0	0	0
100	2	0	1	3	1	0	7
105	0	0	0	0	0	0	0
110	3	2	0	1	0	1	7
115	0	0	0	0	2	1	3
120	0	1	5	2	0	2	10
125	0	0	0	0	3	0	3
130	0	2	3	2	2	3	12
135	2	0	0	0	1	0	3
140	0	4	2	3	1	3	13
145	0	0	0	0	3	0	3
150	2	4	3	1	1	5	16
155	0	0	2	0	2	0	4
160	2	4	2	0	1	2	11
165	0	0	0	0	0	0	0
180	2	0	0	2	0	0	4
190	0	0	0	1	0	0	1

Session V

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
195	2	0	0	0	0	0	2
205	1	0	0	0	0	0	1
210	1	0	0	0	0	0	1
235	1	0	0	0	0	0	1

Session VI

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
80	1	0	0	0	0	0	1
85	0	0	0	0	0	0	0
90	0	0	0	2	0	1	3
95	1	0	0	0	1	0	2
100	0	4	1	4	0	2	11
105	0	0	0	0	0	0	0
110	1	0	0	0	2	2	5
115	0	0	0	0	1	0	1
120	0	2	4	0	2	1	9
125	1	0	0	0	2	0	3
130	1	2	2	3	2	4	14
135	3	0	1	0	1	0	5
140	0	3	5	1	1	3	13
145	0	0	0	0	4	0	4

Session VI

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
150	2	4	4	4	1	3	18
155	0	0	1	0	1	0	2
160	5	3	0	2	0	2	12
165	0	0	0	0	0	0	0
170	0	0	0	1	0	0	1
180	3	0	0	0	0	0	3
200	0	0	0	1	0	0	1

Total Sessions

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
50	1	0	0	0	0	0	1
55	0	0	0	0	0	0	0
60	0	0	0	0	1	0	1
65	0	0	0	0	0	0	0
70	0	0	0	4	0	0	4
75	0	3	0	1	1	0	5
80	3	0	0	1	1	2	7
85	0	0	0	0	2	0	2
90	8	3	0	9	1	3	24
95	1	0	0	0	4	0	5
100	4	12	8	25	1	13	63

Total Sessions

Rank:	5	2	6*	4	3	1	Total
X (Shot Holes)							
105	0	1	0	1	4	0	6
110	8	2	0	1	10	8	29
115	3	0	0	0	11	1	15
120	0	13	17	5	11	17	63
125	3	3	3	1	10	0	20
130	5	15	18	12	9	25	84
135	8	0	2	0	9	0	19
140	0	19	19	9	10	12	69
145	0	1	9	1	12	0	23
150	12	21	19	16	5	21	94
155	2	0	5	0	5	0	12
160	19	12	6	6	1	4	48
165	3	0	2	0	0	0	5
170	0	1	0	7	0	2	10
175	6	2	0	2	0	0	10
180	14	0	0	4	0	0	18
190	1	0	0	1	0	0	2
195	2	0	0	0	0	0	2
200	1	0	0	2	0	0	3
205	1	0	0	0	0	0	1
210	1	0	0	0	0	0	1
235	1	0	0	0	0	0	1
360	1	0	0	0	0	0	1

High Status Member Indoctrinated - Low Solidarity Group (Hogs)

Session I (SG)

Group Members in Order of Giving Judgments

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
40	0	1	0	0	0	1
45	0	0	0	0	0	0
50	1	0	0	0	0	1
55	0	0	0	0	0	0
60	0	0	0	0	0	0
65	0	0	0	0	0	0
70	1	0	0	0	0	1
75	0	0	0	0	0	0
80	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	2	0	2	0	4
95	0	0	0	0	0	0
100	2	2	1	1	0	6
105	0	1	0	0	0	1
110	0	2	1	2	0	5
115	1	1	0	0	0	2
120	4	3	3	2	0	12
125	0	0	0	0	0	0
130	1	3	4	3	2	13
135	1	0	1	2	3	7

Session I

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
140	0	0	1	1	1	3
145	0	0	0	0	3	3
150	0	0	2	2	3	7
155	3	0	1	0	1	5
160	1	0	0	0	2	3
165	0	0	0	0	0	0
170	0	0	0	0	0	0
175	0	0	1	0	0	1

Session II

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
100	0	1	0	1	0	2
105	0	0	0	0	0	0
110	0	1	1	1	0	3
115	0	0	0	0	0	0
120	0	4	0	2	1	7
125	0	1	0	0	0	1
130	1	4	0	1	0	6
135	0	1	3	1	3	8
140	2	3	1	1	2	9
125	2	0	2	2	2	8
150	4	0	2	2	5	13

Session II

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
155	0	0	1	0	0	1
160	2	0	2	1	2	7
165	3	0	1	0	0	4
170	1	0	1	2	0	4
175	0	0	0	0	0	0
180	0	0	0	1	0	1
185	0	0	1	0	0	1

Session III

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
50	0	0	0	0	1	1
55	0	0	0	0	0	0
60	0	0	0	0	0	0
65	0	0	0	0	0	0
70	0	0	0	0	0	0
75	0	0	0	0	0	0
80	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	1	0	0	0	1
95	0	0	0	0	0	0
100	0	0	0	1	0	1
105	0	0	0	0	0	0

Session III

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
110	0	0	0	2	0	2
115	1	1	2	0	0	4
120	0	5	0	2	0	7
125	0	1	2	0	2	5
130	2	4	0	0	0	6
135	1	1	0	3	0	5
140	1	2	0	2	4	9
145	2	0	3	1	3	9
150	2	0	1	1	2	6
155	3	0	4	0	1	8
160	1	0	0	1	2	4
165	1	0	1	1	0	3
170	1	0	1	1	0	3
175	0	0	0	0	0	0
180	0	0	1	0	0	1

Session IV

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
110	0	2	0	2	0	4
115	0	2	0	0	0	2
120	0	2	1	1	0	4
125	0	2	1	0	0	3

Session IV

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
130	1	5	0	2	0	8
135	0	1	3	0	5	9
140	1	1	1	1	1	5
145	3	0	0	2	2	7
150	4	0	3	1	4	12
155	3	0	1	1	2	7
160	3	0	0	2	1	6
165	0	0	2	1	0	3
170	0	0	1	2	0	3
175	0	0	1	0	0	1
180	0	0	1	0	0	1

Session V

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
90	0	1	0	0	0	1
95	0	0	0	0	0	0
100	0	0	0	1	0	1
105	0	2	0	0	0	2
110	0	3	1	2	0	6
115	1	2	0	0	0	3
120	2	1	1	2	0	6
125	0	2	1	0	1	4

Session V

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
130	1	1	0	3	2	7
135	1	2	1	0	1	5
140	2	0	0	0	2	4
145	5	1	5	3	2	16
150	2	0	1	1	3	7
155	1	0	2	0	2	5
160	0	0	1	2	2	5
165	0	0	1	0	0	1
170	0	0	1	1	0	2

Session VI

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
80	0	1	0	0	0	1
85	0	0	0	0	0	0
90	0	0	1	0	0	1
95	0	0	0	0	0	0
100	0	0	0	0	0	0
105	0	1	0	0	0	1
110	1	2	0	0	0	3
115	0	1	1	0	0	2
120	1	1	0	2	0	4

Session VI

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
125	1	3	2	0	2	8
130	0	2	0	2	0	4
135	0	2	1	2	2	7
140	1	1	2	4	2	10
145	2	1	1	0	4	8
150	6	0	4	3	3	16
155	1	0	1	0	1	3
160	1	0	1	1	1	4
165	1	0	1	0	0	2
170	0	0	0	1	0	1

Total Sessions

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
40	0	1	0	0	0	1
45	0	0	0	0	0	0
50	1	0	0	0	1	2
55	0	0	0	0	0	0
60	0	0	0	0	0	0
65	0	0	0	0	0	0
70	1	0	0	0	0	1
75	0	0	0	0	0	0
80	0	1	0	0	0	1

Total Sessions

Rank:	5	2	3	4	1*	Total
X (Shot Holes)						
85	0	0	0	0	0	0
90	0	4	1	2	0	7
95	0	0	0	0	0	0
100	2	3	1	4	0	10
105	0	4	0	0	0	4
110	1	10	3	9	0	23
115	3	7	3	0	0	13
120	7	16	5	11	1	40
125	1	9	6	0	5	21
130	6	19	4	11	4	44
135	3	7	9	8	14	41
140	7	7	5	9	12	40
145	14	2	11	8	16	51
150	18	0	13	10	20	61
155	11	0	10	1	7	29
160	8	0	4	7	10	29
165	5	0	6	2	0	13
170	2	0	4	7	0	13
175	0	0	2	0	0	2
180	0	0	2	1	0	3
185	0	0	1	0	0	1

Low Status Member Indoctrinated - Low Solidarity Group (Hogs)

Session I (AK)

Group Members in Order of Giving Judgments

Rank:	2	4	1	3	5*	Total
X (Inches)						
0	1	0	0	0	0	1
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	1	0	0	0	0	1
5	1	1	0	0	0	2
6	1	0	0	0	0	1
7	0	0	0	0	0	0
8	4	3	0	2	0	9
9	0	0	0	3	0	3
10	6	1	4	1	2	14
11	1	2	0	0	0	3
12	4	2	4	6	6	22
13	3	5	1	5	0	14
14	0	5	3	2	5	15
15	5	2	9	3	4	23
16	1	2	1	1	5	10
17	0	1	4	2	4	11
18	0	0	2	4	4	10
19	0	2	1	0	0	3

Session I

Rank:	2	4	1	3	5*	Total
X (Inches)						
20	1	4	1	1	0	7
24	1	0	0	0	0	1

Session II

Rank:	2	4	1	3	5*	Total
X (Inches)						
5	1	0	0	0	0	1
6	1	0	0	0	0	1
7	0	2	0	0	0	2
8	4	2	2	3	1	12
9	0	1	0	1	0	2
10	3	5	2	3	3	16
11	0	0	0	2	0	2
12	6	4	11	4	6	31
13	2	6	0	4	0	12
14	1	1	5	4	8	19
15	8	4	5	7	1	25
16	0	2	2	0	6	10
17	2	3	2	1	2	10
18	0	0	1	1	3	5
20	1	0	0	0	0	1
28	1	0	0	0	0	1

Session III

Rank:	2	4	1	3	5*	Total
X (Inches)						
5	0	1	1	0	0	2
6	0	2	0	0	0	2
7	0	1	0	0	0	1
8	4	5	3	4	1	17
9	0	0	1	3	0	4
10	6	3	4	1	4	18
11	0	1	0	3	0	4
12	8	4	8	7	7	34
13	3	2	0	4	1	10
14	1	4	8	2	13	28
15	4	4	3	5	3	19
16	0	1	1	0	0	2
17	3	0	1	0	0	4
18	1	2	0	1	1	5

Session IV

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	0	1	0	0	0	1
5	2	1	1	0	0	4
6	0	1	1	0	1	3
7	0	2	1	3	0	6
8	4	3	5	3	3	18

Session IV

Rank:	2	4	1	3	5*	Total
X (Inches)						
9	0	1	0	5	0	6
10	8	8	4	2	4	26
11	0	0	0	5	1	6
12	6	2	10	5	7	30
13	1	5	0	4	1	11
14	1	4	5	3	12	25
15	5	2	1	0	1	9
16	0	0	0	0	0	0
17	3	0	2	0	0	5
18	0	0	0	0	0	0

Session V

Rank:	2	4	1	3	5*	Total
X (Inches)						
1	0	1	0	0	0	1
2	0	0	0	0	0	0
3	2	1	1	0	0	4
4	1	0	1	0	0	2
5	5	0	9	0	2	16
6	0	1	1	1	1	4
7	2	5	2	9	2	20
8	4	3	6	4	6	23
9	2	6	1	7	6	22

Session V

Rank:	2	4	1	3	5*	Total
X (Inches)						
10	5	3	3	2	6	19
11	1	0	0	3	1	5
12	3	3	3	0	2	11
13	3	2	0	1	0	6
14	1	3	3	1	1	9
15	1	1	0	2	3	7
16	0	0	0	0	0	0
17	0	1	0	0	0	1
18	0	0	0	0	0	0

Total Sessions

Rank:	2	4	1	3	5*	Total
X (Inches)						
0	1	0	0	0	0	1
1	0	1	0	0	0	1
3	2	1	1	0	0	4
4	2	1	1	0	0	4
5	9	3	11	0	2	25
6	2	4	2	1	2	11
7	2	10	3	12	2	29
8	20	16	16	16	11	79
9	2	8	2	19	6	37

Total Sessions

Rank:	2	4	1	3	5*	Total
X (Inches)						
10	28	20	17	9	19	93
11	2	3	0	13	2	20
12	27	15	36	22	28	128
13	12	20	1	18	2	53
14	4	17	24	12	39	96
15	23	13	18	17	12	83
16	1	5	4	1	11	22
17	8	5	9	3	6	31
18	1	2	3	6	8	20
19	0	2	1	0	0	3
20	2	4	1	1	0	8
24	1	0	0	0	0	1
28	1	0	0	0	0	1

High Status Member Indoctrinated - Low Solidarity Group (Bayers)

Session I (SG)

	Group Members in Order of Giving Judgments				
Rank:	3	4	2	1*	Total
X (Shot Holes)					
120	0	0	2	0	2
125	0	0	0	0	0
130	1	0	1	0	2
135	1	0	3	0	4
140	1	0	2	3	6
145	2	4	0	3	9
150	2	4	3	4	13
155	2	2	1	2	7
160	1	2	0	0	3
165	2	0	0	0	2

Session II

Rank:	3	4	2	1*	Total
X (Shot Holes)					
130	1	1	0	0	2
135	0	0	0	1	1
140	0	1	0	4	5
145	3	3	6	0	12
150	2	4	3	2	11
155	4	1	3	4	12
160	1	2	0	1	4

Session II

Rank:	3	4	2	1*	Total
X (Shot Holes)					
165	1	0	0	0	1

Session III

Rank:	3	4	2	1*	Total
X (Shot Holes)					
130	0	0	1	0	1
135	0	0	0	0	0
140	0	0	0	1	1
145	3	3	2	1	9
150	1	2	6	2	11
155	1	1	3	3	8
160	3	5	0	2	10
165	4	1	0	3	8

Session IV

Rank:	3	4	2	1*	Total
X (Shot Holes)					
135	0	1	0	0	1
140	0	0	0	2	2
145	3	0	4	0	7
150	1	2	3	3	9
155	4	3	2	2	11
160	1	2	1	0	4

Session IV

Rank:	3	4	2	1*	Total
X (Shot Holes)					
165	3	3	2	2	10
170	0	1	0	3	4

Session V

Rank:	3	4	2	1*	Total
X (Shot Holes)					
135	0	0	0	0	0
140	0	0	0	1	1
145	1	1	2	0	4
150	2	1	1	3	7
155	2	2	4	0	8
160	3	2	4	3	12
165	2	4	1	2	9
170	2	2	0	3	7

Session VI

Rank:	3	4	2	1*	Total
X (Shot Holes)					
135	0	0	0	0	0
140	0	0	0	0	0
145	1	1	0	1	3
150	1	0	2	2	5
155	2	0	4	1	7

Session VI

Rank:	3	4	2	1*	Total
X (Shot Holes)					
160	2	3	0	4	9
165	2	4	4	1	11
170	3	4	1	2	10
175	1	0	1	1	3

Session VII

Rank:	3	4	2	1*	Total
X (Shot Holes)					
150	1	0	0	3	4
155	1	0	0	0	1
160	1	4	4	3	12
165	4	2	4	1	11
170	3	4	3	3	13
175	2	2	1	2	7

Total Sessions

Rank:	3	4	2	1*	Total
X (Shot Holes)					
120	0	0	2	0	2
125	0	0	0	0	0
130	2	1	2	0	5
135	1	1	3	1	6
140	1	1	2	11	15

Total Sessions					
Rank:	3	4	2	1*	Total
X (Shot Holes)					
145	13	12	14	5	44
150	10	13	18	19	60
155	16	9	17	12	54
160	12	20	9	13	54
165	18	14	11	9	52
170	8	11	4	11	34
175	3	2	2	3	10

Low Status Member Indoctrinated - Low Solidarity Group (Bayers)

Session I (AK)

Group Members in Order of Giving Judgments

Rank:	2	3	1	4*	Total
X (Inches)					
6	1	1	0	0	2
7	2	0	0	0	2
8	0	2	3	0	5
9	0	1	0	0	1
10	9	0	0	0	9
11	0	1	7	0	8
12	0	2	3	0	5
13	2	6	2	7	17
14	1	1	7	8	17
15	9	7	2	1	19
16	0	0	3	5	8
17	4	5	1	7	17
18	2	1	2	2	7
19	0	3	0	0	3

Session II

Rank:	2	3	1	4*	Total
X (Inches)					
8	0	1	0	0	1
9	0	0	0	0	0

Session II

Rank:	2	3	1	4*	Total
X (Inches)					
10	4	0	2	0	6
11	1	2	1	0	4
12	1	2	3	1	7
13	3	2	1	5	11
14	0	1	1	6	8
15	7	6	2	4	19
16	0	1	7	8	16
17	7	8	4	5	24
18	2	2	7	1	12
19	1	3	1	0	5
20	4	2	0	0	6
21	0	0	1	0	1

Session III

Rank:	2	3	1	4*	Total
X (Inches)					
8	0	1	0	0	1
9	0	0	0	0	0
10	3	0	0	0	3
11	0	1	2	0	3
12	0	1	5	0	6
13	10	5	1	7	23
14	0	1	9	2	12

Session III

Rank:	2	3	1	4*	Total
X (Inches)					
15	7	11	1	5	24
16	0	0	8	5	13
17	8	7	2	8	25
18	2	0	0	2	4
19	0	3	1	1	5
20	0	0	1	0	1

Session IV

Rank:	2	3	1	4*	Total
X (Inches)					
10	1	0	0	0	1
11	0	0	0	0	0
12	1	0	2	0	3
13	8	8	2	4	22
14	0	1	11	5	17
15	9	12	0	4	25
16	1	2	8	11	22
17	10	6	4	4	24
18	0	1	3	2	6

Session V

Rank:	2	3	1	4*	Total
X (Inches)					
10	0	1	0	0	1

Session V

Rank:	2	3	1	4*	Total
X (Inches)					
11	0	0	0	0	0
12	4	1	5	0	10
13	6	4	3	0	13
14	5	0	9	4	18
15	4	13	3	7	27
16	6	1	5	11	23
17	3	10	3	7	23
18	1	0	2	1	4
19	1	0	0	0	1

Total Sessions

Rank:	2	3	1	4*	Total
X (Inches)					
6	1	1	0	0	2
7	2	0	0	0	2
8	0	4	3	0	7
9	0	1	0	0	1
10	17	1	2	0	20
11	1	4	10	0	15
12	6	6	18	1	31
13	29	25	9	23	86
14	6	4	37	25	72

Total Sessions

Rank:	2	3	1	4*	Total
X (Inches)					
15	36	49	8	21	114
16	7	4	31	40	82
17	32	36	14	31	113
18	7	4	14	8	33
19	2	9	2	1	14
20	4	2	1	0	7
21	0	0	1	0	1

High Status Member Indoctrinated - High Solidarity Group (Cobbers)

Session I (SG)

	Group Members in Order of Giving Judgments				
Rank:	1*	4	2	3	Total
X (Shot Holes)					
120	0	0	0	1	1
125	0	0	0	0	0
130	0	1	1	1	3
135	3	1	0	1	5
140	2	2	1	1	6
145	3	2	1	1	7
150	4	1	2	3	10
155	0	2	2	1	5
160	0	2	2	2	6
165	0	0	3	0	3
170	0	1	0	1	2

Session II

Rank:	1*	4	2	3	Total
X (Shot Holes)					
130	0	1	1	1	3
135	0	0	1	0	1
140	1	0	2	6	9
145	4	2	1	1	8
150	4	2	4	1	11

Session II

Rank:	1*	4	2	3	Total
X (Shot Holes)					
155	2	2	2	2	8
160	1	4	0	1	6
165	0	1	1	0	2

Session III

Rank:	1*	4	2	3	Total
X (Shot Holes)					
135	1	0	0	0	1
140	0	1	2	1	4
145	2	3	1	1	7
150	4	1	4	4	13
155	3	2	3	1	9
160	1	3	2	3	9
165	1	1	0	2	4
170	0	1	0	0	1

Session IV

Rank:	1*	4	2	3	Total
X (Shot Holes					
125	0	0	0	1	1
130	1	0	2	1	4
135	1	0	0	0	1

Session IV

Rank:	1*	4	2	3	Total
X (Shot Holes)					
140	1	3	1	2	7
145	0	2	2	0	4
150	4	1	3	1	9
155	4	2	1	1	8
160	1	2	0	3	6
165	0	2	3	1	6
170	0	0	0	2	2

Session V

Rank:	1*	4	2	3	Total
X (Shot Holes)					
135	0	1	0	0	1
140	3	2	1	2	8
145	3	0	2	0	5
150	3	1	3	4	11
155	2	4	3	0	9
160	1	2	2	2	7
165	0	1	1	4	6
170	0	1	0	0	1

Session VI

Rank:	1*	4	2	3	Total
X (Shot Holes)					
135	0	1	0	0	1

Session VI

Rank:	1*	4	2	3	Total
X (Shot Holes)					
140	2	0	0	1	3
145	2	1	2	0	5
150	1	2	2	3	8
155	5	3	3	1	12
160	2	3	1	2	8
165	0	2	4	3	9
170	0	0	0	2	2

Session VII

Rank:	1*	4	2	3	Total
X (Shot Holes)					
135	0	0	0	0	0
140	1	0	0	4	5
145	3	2	0	0	5
150	3	2	4	0	9
155	3	4	5	0	12
160	2	2	1	4	9
165	0	2	2	3	7
170	0	0	0	1	1

Total Sessions

Rank:	1*	4	2	3	Total
X (Shot Holes)					
120	0	0	0	1	1
125	0	0	0	1	1
130	1	2	4	3	10
135	5	3	1	1	10
140	10	8	7	17	42
145	17	12	9	3	41
150	23	10	22	16	71
155	19	19	19	6	63
160	8	18	8	17	51
165	1	9	14	13	37
170	0	3	0	6	9

Low Status Member Indoctrinated - High Solidarity Group (Cobbers)

Session I (AK)

Group Members in Order of Giving Judgments

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	0	1	0	0	0	1
5	0	4	3	1	0	8
6	2	6	4	0	0	12
7	3	2	2	4	1	12
8	7	11	3	2	2	25
9	1	0	4	4	4	13
10	6	4	5	5	7	27
11	2	0	0	4	5	11
12	5	1	5	6	4	21
12	2	0	3	3	5	13
14	1	0	1	1	1	4
15	1	1	0	0	1	3
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Session II

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	0	0	2	0	0	2

Session II

Rank:	2	4	1	3	5*	Total
X (Inches)						
5	0	3	2	0	4	9
6	5	13	6	0	0	24
7	1	2	2	3	3	11
8	8	10	6	1	6	31
9	1	0	2	5	2	10
10	5	2	1	7	3	18
11	2	0	0	3	4	9
12	3	0	8	5	2	18
13	3	0	1	5	4	13
14	1	0	0	1	1	3
15	1	0	0	0	1	2
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Session III

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	1	0	0	0	0	1
5	0	1	4	1	1	7
6	5	6	2	2	3	18
7	8	7	8	1	5	29

Session III

Rank:	2	4	1	3	5*	Total
X (Inches)						
8	7	11	2	5	3	28
9	3	1	3	6	4	17
10	3	4	6	4	6	23
11	0	0	0	5	6	11
12	2	0	5	6	1	14
13	1	0	0	0	1	2
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Session IV

Rank:	2	4	1	3	5*	Total
X (Inches)						
5	2	1	2	2	1	8
6	4	7	3	5	5	24
7	7	6	2	4	4	23
8	5	15	7	2	5	34
9	5	1	6	3	6	21
10	1	0	6	4	4	15
11	3	0	0	5	3	11

Session IV

Rank:	2	4	1	3	5*	Total
X (Inches)						
12	2	0	2	5	1	10
13	1	0	0	0	1	2
14	0	0	2	0	0	2
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Session V

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	0	0	0	0	1	1
5	1	1	2	1	0	5
6	4	4	2	5	3	18
7	10	6	6	4	4	30
8	1	18	5	6	5	35
9	9	0	3	0	5	17
10	3	0	7	5	5	20
11	1	0	0	5	6	12
12	1	1	5	4	1	12
13	0	0	0	0	0	0
14	0	0	0	0	0	0

Session V

Rank:	2	4	1	3	5*	Total
X (Inches)						
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Total Sessions

Rank:	2	4	1	3	5*	Total
X (Inches)						
4	1	1	2	0	1	5
5	3	10	13	5	6	37
6	20	36	17	12	11	96
7	29	23	20	16	17	105
8	28	65	23	16	21	153
9	19	2	18	18	21	78
10	18	10	25	25	25	103
11	8	0	0	22	24	54
12	13	2	25	26	9	75
13	7	0	4	8	11	30
14	2	0	3	2	2	9
15	2	1	0	0	2	5
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

High Status Member Indoctrinated - High Solidarity Group (Tonys)

Session I (AK)

	Group Members in Order of Giving Judgments					
Rank:	2	5	3	4	1*	Total
X (Inches)						
5	0	0	0	2	0	2
6	1	2	1	0	0	4
7	1	1	3	1	0	6
8	0	4	0	4	0	8
9	1	0	2	1	0	4
10	6	2	1	5	2	16
11	0	2	1	1	0	4
12	2	3	2	4	4	15
13	2	2	3	1	3	11
14	0	1	3	4	6	14
15	4	1	4	3	7	19
16	3	1	3	1	2	10
17	1	2	5	0	3	11
18	5	3	1	2	3	14
19	1	0	1	1	0	3
20	3	1	0	0	0	4
21	0	1	0	0	0	1
22	0	3	0	0	0	3
25	0	1	0	0	0	1

Session II

Rank:	2	5	3	4	1*	Total
X (Inches)						
7	0	0	1	0	0	1
8	0	1	2	1	0	4
9	0	0	0	0	0	0
10	0	1	3	1	0	5
11	0	0	0	0	0	0
12	0	1	1	4	3	9
13	2	1	1	4	0	8
14	5	5	9	5	3	27
15	4	2	2	6	5	19
16	4	1	3	2	6	16
17	1	2	5	3	4	15
18	7	5	2	0	9	23
19	0	0	1	0	0	1
20	7	6	0	2	0	15
21	0	0	0	1	0	1
22	0	2	0	0	0	2
24	0	2	0	0	0	2
25	0	1	0	1	0	2

Session III

Rank:	2	5	3	4	1*	Total
X (Inches)						
4	0	0	1	0	0	1

Session III

Rank:	2	5	3	4	1*	Total
X (Inches)						
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	1	0	0	1
8	0	1	0	1	0	2
9	0	0	0	0	0	0
10	0	0	1	1	0	2
11	0	0	0	0	0	0
12	2	4	1	2	5	14
13	3	0	1	6	1	11
14	9	1	7	4	1	22
15	3	1	0	5	3	12
16	5	4	7	3	10	29
17	0	4	7	3	5	19
18	4	4	1	3	5	17
19	0	2	2	1	0	5
20	4	2	1	1	0	8
21	0	1	0	0	0	1
22	0	3	0	0	0	3
24	0	2	0	0	0	2
25	0	1	0	0	0	1

Session IV

Rank:	2	5	3	4	1*	Total
X (Inches)						
7	0	0	1	0	0	1
8	0	2	0	0	0	2
9	0	0	1	0	0	1
10	0	6	5	0	0	11
11	0	0	0	1	0	1
12	2	4	0	5	6	17
13	3	1	2	5	0	11
14	4	5	1	5	2	17
15	3	0	2	6	6	17
16	7	2	9	4	6	28
17	2	3	4	1	4	14
18	6	1	3	2	6	18
19	1	0	1	0	0	2
20	2	2	0	1	0	5
21	0	2	0	0	0	2
23	0	0	1	0	0	1
24	0	2	0	0	0	2

Session V

Rank:	2	5	3	4	1*	Total
X (Inches)						
8	1	0	0	0	0	1

Session V

Rank:	2	5	3	4	1*	Total
X (Inches)						
9	0	1	0	0	0	1
10	1	5	6	1	0	13
11	0	3	0	0	0	3
12	7	3	3	5	5	23
13	7	1	1	2	0	11
14	4	5	5	4	8	26
15	2	3	3	7	4	19
16	6	2	3	3	9	23
17	0	1	6	5	1	13
18	1	5	0	3	3	12
19	1	0	1	0	0	2
20	0	0	1	0	0	1
22	0	1	0	0	0	1
24	0	0	1	0	0	1

Total Sessions

Rank:	2	5	3	4	1*	Total
X (Inches)						
4	0	0	1	0	0	1
5	0	0	0	2	0	2
6	1	2	1	0	0	4
7	1	1	6	1	0	9

Total Sessions

Rank:	2	5	3	4	1*	Total
X (Inches)						
8	1	8	2	6	0	17
9	1	1	3	1	0	6
10	7	14	16	8	2	47
11	0	5	1	2	0	8
12	13	15	7	20	23	78
13	17	5	8	18	4	52
14	22	17	25	22	20	106
15	16	7	11	27	25	86
16	25	10	25	13	33	106
17	4	12	27	12	17	72
18	23	18	7	10	26	84
19	3	2	6	2	0	13
20	16	11	2	4	0	33
21	0	4	0	1	0	5
22	0	9	0	0	0	9
23	0	0	1	0	0	1
24	0	6	1	0	0	7
25	0	3	0	1	0	4

Low Status Member Indoctrinated - High Solidarity Group (Tonys)

Session I (SG)

	Group Members in Order of Giving Judgments					
Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
95	2	0	0	0	0	2
100	2	2	2	3	0	9
105	0	0	1	0	1	2
110	2	1	2	1	0	6
115	1	1	2	2	0	6
120	0	0	2	0	1	3
125	2	3	3	0	0	8
130	2	0	1	3	2	8
135	0	3	0	0	3	6
140	0	1	1	0	2	4
145	0	1	1	1	1	4
150	2	2	0	2	0	6
155	1	1	0	0	2	4
160	1	0	0	1	2	4
165	0	0	0	0	1	1
170	0	0	0	0	0	0
175	0	0	0	1	0	1
180	0	0	0	1	0	1

Session II

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	2	0	2
85	0	0	0	0	1	1
90	0	0	0	0	0	0
95	0	0	0	1	1	2
100	2	1	0	1	0	4
105	0	0	0	0	0	0
110	2	2	1	1	1	7
115	1	1	5	1	1	9
120	0	0	2	2	1	5
125	4	2	4	1	1	12
130	2	0	2	0	1	5
135	1	1	1	1	0	4
140	0	2	0	1	1	4
145	0	3	0	0	2	5
150	1	1	0	1	1	4
155	1	1	0	0	0	2
160	1	0	0	0	2	3
165	0	1	0	0	1	2
170	0	0	0	1	1	2
175	0	0	0	1	0	1
180	0	0	0	1	0	1

Session III

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	1	0	1
85	0	0	0	0	1	1
90	0	0	0	2	0	2
95	1	1	0	0	0	2
100	1	0	2	3	0	6
105	0	0	0	1	1	2
110	2	0	1	0	0	3
115	0	1	0	0	0	1
120	0	1	0	2	2	5
125	4	2	3	0	2	11
130	0	0	5	0	0	5
135	3	4	3	0	2	12
140	0	1	1	1	0	3
145	1	1	0	0	3	5
150	0	1	0	1	0	2
155	1	0	0	0	1	2
160	1	1	0	2	0	4
165	1	2	0	0	3	6
175	0	0	0	1	0	1
185	0	0	0	1	0	1

Session IV

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	1	0	1
85	0	0	0	0	0	0
90	2	0	0	0	1	3
95	0	0	0	1	1	2
100	2	1	0	2	1	6
105	1	1	2	0	0	4
110	0	1	1	0	2	4
115	2	1	1	0	1	5
120	0	0	2	3	0	5
125	2	4	3	1	1	11
130	1	1	0	1	1	4
135	1	1	5	0	1	8
140	0	3	1	2	2	8
145	2	0	0	1	1	4
150	0	1	0	0	0	1
155	0	0	0	0	1	1
160	1	1	0	1	1	4
165	1	0	0	0	1	2
175	0	0	0	1	0	1
180	0	0	0	1	0	1

Session V

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	2	1	3
85	0	0	0	0	0	0
90	1	0	0	0	0	1
95	2	0	0	1	0	3
100	3	3	2	3	0	11
105	0	1	0	0	1	2
110	0	0	1	2	3	6
115	0	3	4	1	0	8
120	0	0	3	2	2	7
125	6	0	1	0	1	8
130	0	2	1	3	1	7
135	2	2	2	0	1	7
140	1	0	1	0	1	3
145	0	1	0	0	1	2
150	0	2	0	0	3	5
155	0	0	0	0	0	0
160	0	1	0	1	0	2
165	0	0	0	0	0	0

Session VI

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	1	1	2

Session VI

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
85	0	0	0	2	0	2
90	1	2	0	0	0	3
95	2	1	0	4	0	7
100	6	2	3	1	1	13
105	0	2	0	0	1	3
110	1	1	3	2	1	8
115	4	2	3	0	3	12
120	0	1	3	3	1	8
125	0	3	3	1	4	11
130	0	1	0	0	0	1
135	1	0	0	0	2	3
140	0	0	0	0	0	0
145	0	0	0	0	0	0
150	0	0	0	0	0	0
155	0	0	0	0	0	0
160	0	0	0	1	1	2
165	0	0	0	0	0	0

Total Sessions

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
80	0	0	0	7	2	9

Total Sessions

Rank:	1	4	2	3	5*	Total
X (Shot Holes)						
85	0	0	0	2	2	4
90	4	2	0	2	1	9
95	7	2	0	7	2	18
100	16	9	9	13	2	49
105	1	4	3	1	4	13
110	7	5	9	6	7	34
115	8	9	15	4	5	41
120	0	2	12	12	7	33
125	18	14	17	3	9	61
130	5	4	9	7	5	30
135	8	11	11	1	9	40
140	1	7	4	4	6	22
145	3	6	1	2	8	20
150	3	7	0	4	4	18
155	3	2	0	0	4	9
160	4	3	0	6	6	19
165	2	3	0	0	6	11
170	0	0	0	1	1	2
175	0	0	0	4	0	4
180	0	0	0	3	0	3
185	0	0	0	1	0	1

High Status Member Indoctrinated - High Solidarity Group (Ploys)

Session I (AK)

	Group Members in Order of Giving Judgments							
Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
5	0	0	0	0	0	1	1	2
6	0	1	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0
8	0	4	0	0	0	0	0	4
9	0	1	0	0	0	0	0	1
10	0	1	0	0	0	0	1	2
11	1	1	0	0	0	0	1	3
12	3	4	0	0	0	1	2	10
13	6	1	0	2	3	4	8	24
14	1	4	1	13	13	1	2	35
15	3	1	2	1	5	3	6	21
16	4	4	4	8	6	1	1	28
17	7	0	5	1	0	4	1	18
18	1	3	4	1	3	1	2	15
19	2	2	7	3	0	0	3	17
20	2	1	5	1	0	2	1	12
21	0	0	1	0	0	2	0	3
22	0	1	1	0	0	1	0	3
23	0	0	0	0	0	2	0	2
24	0	1	0	0	0	1	0	2

Session I

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
25	0	0	0	0	0	1	0	1
26	0	0	0	0	0	1	0	1
27	0	0	0	0	0	1	0	1
28	0	0	0	0	0	1	0	1
30	0	0	0	0	0	1	0	1
31	0	0	0	0	0	1	1	2

Session II

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
1	0	0	0	0	0	1	0	1
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0
7	0	1	0	0	0	0	0	1
8	2	1	0	0	0	0	0	3
9	0	3	0	0	0	0	2	5
10	5	1	1	0	0	12	0	19
11	3	1	0	0	0	0	0	4
12	3	2	1	1	0	1	3	11

Session II

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
13	4	1	3	1	1	2	9	21
14	0	4	4	9	9	2	2	30
15	1	1	3	4	5	1	4	19
16	5	3	4	3	7	2	5	29
17	1	0	9	3	2	3	2	20
18	3	5	2	8	5	0	1	24
19	1	3	2	0	0	0	2	8
20	1	2	1	0	1	1	0	6
21	0	1	0	0	0	0	0	1
22	0	1	0	0	0	1	0	2
25	0	0	0	1	0	0	0	1
28	0	0	0	0	0	1	0	1
29	0	0	0	0	0	1	0	1
30	0	0	0	0	0	1	0	1
40	0	0	0	0	0	1	0	1

Session III

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
9	2	0	0	0	0	0	0	2
10	1	0	0	0	0	6	0	7
11	1	0	0	0	0	0	1	2

Session III

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
12	3	0	0	0	0	0	1	4
13	9	0	0	2	0	0	11	22
14	0	8	5	7	3	2	4	29
15	3	0	4	2	12	7	3	31
16	3	8	9	5	9	2	4	40
17	3	3	4	1	3	5	2	21
18	0	3	4	13	3	8	3	34
19	3	4	2	0	0	0	0	9
20	1	1	2	0	0	0	1	5
21	1	0	0	0	0	0	0	1
22	0	1	0	0	0	0	0	1
24	0	2	0	0	0	0	0	2

Session IV

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
4	0	0	0	0	0	1	0	1
5	0	0	0	1	0	0	0	1
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	1	0	0	0	0	0	1
9	1	0	0	0	0	0	1	2

Session IV

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
10	1	0	0	0	0	1	0	2
11	1	0	0	0	0	0	0	1
12	1	0	1	4	1	1	0	8
13	6	2	0	0	0	0	7	15
14	0	9	3	4	11	0	1	28
15	4	3	3	0	1	2	8	21
16	4	0	7	3	10	3	5	32
17	3	0	7	0	1	2	4	17
18	4	5	7	14	4	19	1	54
19	3	1	1	0	1	1	2	9
20	1	3	0	2	0	0	0	6
21	0	3	1	0	0	0	0	4
22	0	0	0	1	1	0	0	2
23	1	0	0	0	0	0	1	2
24	0	1	0	1	0	0	0	2
25	0	1	0	0	0	0	0	1
28	0	1	0	0	0	0	0	1

Session V

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
9	1	0	0	0	0	0	0	1

Session V

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
10	0	0	0	0	0	1	0	1
11	0	0	0	0	0	0	2	2
12	2	1	2	0	2	0	2	9
13	9	1	0	0	0	0	4	14
14	0	4	8	4	8	1	0	25
15	6	5	2	0	3	0	8	24
16	4	2	8	6	9	4	3	36
17	4	3	3	1	3	0	3	17
18	0	6	5	17	4	23	3	58
19	2	1	1	1	0	1	4	10
20	1	0	1	1	1	0	1	5
21	1	3	0	0	0	0	0	4
22	0	2	0	0	0	0	0	2
23	0	1	0	0	0	0	0	1
24	0	1	0	0	0	0	0	1

Total Sessions

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
1	0	0	0	0	0	1	0	1
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0

Total Sessions

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
4	0	0	0	0	0	1	0	1
5	1	0	0	1	0	1	1	4
6	0	1	0	0	0	0	0	1
7	0	1	0	0	0	0	0	1
8	2	6	0	0	0	0	0	8
9	4	4	0	0	0	0	3	11
10	7	2	1	0	0	20	1	31
11	6	2	0	0	0	0	4	12
12	12	7	4	5	3	3	8	42
13	34	5	3	5	4	6	39	96
14	1	29	21	37	44	6	9	147
15	17	10	14	7	26	13	29	116
16	20	17	32	25	41	12	18	165
17	18	6	28	6	9	14	12	93
18	8	22	22	53	19	51	10	185
19	11	11	13	4	1	2	11	53
20	6	7	9	4	2	3	3	34
21	2	7	2	0	0	2	0	13
22	0	5	1	1	1	2	0	10
23	1	1	0	0	0	2	1	5
24	0	5	0	1	0	1	0	7
25	0	1	0	1	0	1	0	3

Total Sessions

Rank:	3	4	5	2	1*	7	6	Total
X (Inches)								
26	0	0	0	0	0	1	0	1
27	0	0	0	0	0	1	0	1
28	0	1	0	0	0	2	0	3
29	0	0	0	0	0	1	0	1
30	0	0	0	0	0	2	0	2
31	0	0	0	0	0	1	1	2
40	0	0	0	0	0	1	0	1

Low Status Member Indoctrinated - High Solidarity Group (Ploys)

Session I (SG)

	Group Members in Order of Giving Judgments							
Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
65	0	0	0	0	0	1	0	1
70	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0
80	2	0	0	0	0	0	0	2
85	0	0	0	0	0	0	0	0
90	0	0	0	2	0	1	1	4
95	1	0	1	0	0	1	1	4
100	4	1	2	1	1	0	1	10
105	0	0	1	0	3	1	0	5
110	3	3	0	3	3	1	2	15
115	4	1	1	5	2	0	2	15
120	0	1	4	1	0	0	2	8
125	3	2	0	3	4	5	0	17
130	1	0	5	0	3	1	1	11
135	0	0	4	0	0	2	2	8
140	0	1	0	0	2	0	3	6
145	0	0	0	0	0	3	1	4
150	1	3	1	0	1	0	0	6
155	0	0	1	0	0	0	0	1
160	0	4	1	0	0	2	1	8

Session I

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
165	1	0	0	0	1	1	0	3
170	1	1	0	0	0	0	1	3
180	0	1	0	0	0	0	1	2
185	0	0	0	0	0	1	0	1
190	0	0	0	1	0	0	0	1
195	0	0	0	2	0	0	1	3
200	0	3	0	2	0	0	1	6
250	0	0	0	1	0	1	0	2
300	0	0	0	0	1	0	0	1

Session II

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
75	1	0	0	0	1	0	0	2
80	0	0	0	1	0	0	0	1
85	0	0	0	0	0	1	1	2
90	0	1	0	0	1	0	0	2
95	0	1	0	0	0	0	0	1
100	1	0	1	1	2	0	0	5
105	0	0	2	0	1	0	0	3
110	0	2	0	1	1	0	0	4
115	4	0	0	1	2	0	1	8

Session II

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
120	0	1	1	2	0	2	0	6
125	3	3	0	3	0	0	0	9
130	0	0	0	0	3	1	3	7
135	0	0	2	0	2	1	0	5
140	0	2	0	0	0	3	4	9
145	0	1	0	0	0	0	0	1
150	2	0	5	2	0	2	2	13
155	3	0	0	0	0	0	1	4
160	2	2	2	1	2	1	0	10
165	1	0	0	1	0	0	0	2
170	1	1	0	1	0	1	5	9
175	0	0	1	1	1	0	0	3
180	0	0	1	0	0	2	1	4
185	1	0	1	0	0	0	0	2
190	0	1	0	0	1	1	1	4
195	1	0	3	0	2	0	0	6
200	0	4	2	3	0	2	1	12
205	0	0	0	0	1	1	0	2
210	1	0	0	2	0	1	1	5
215	0	0	0	1	0	0	0	1
220	0	2	0	0	0	0	0	2
230	0	0	0	0	1	0	0	1

Session II

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
240	0	0	0	0	0	1	0	1
250	0	0	0	0	0	1	0	1

Session III

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
80	0	0	0	1	0	0	0	1
85	0	0	0	0	0	0	0	0
90	0	0	0	0	1	0	0	1
95	0	1	0	0	0	0	0	1
100	0	1	0	0	2	1	0	4
105	0	0	0	0	0	0	0	0
110	0	1	0	0	0	0	0	1
115	1	0	0	1	0	0	0	2
120	2	1	1	0	2	5	0	11
125	1	5	0	3	2	2	2	15
130	2	0	0	1	2	2	0	7
135	2	0	4	3	1	1	0	11
140	0	0	1	0	0	1	5	7
145	1	2	0	0	1	1	0	5
150	4	2	2	2	0	1	0	11
155	3	1	0	0	2	0	0	6

Session III

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
160	2	0	3	1	1	0	5	12
165	2	1	0	0	0	1	0	4
170	0	1	3	1	1	1	4	11
175	0	0	0	1	3	2	1	7
180	0	0	3	0	1	0	2	6
185	1	0	0	0	0	0	1	2
190	0	0	1	0	0	0	1	2
195	0	0	0	2	1	1	0	4
200	0	3	3	3	0	1	0	10
205	0	0	0	0	1	0	0	1
210	0	2	0	2	0	0	0	4
250	0	0	0	0	0	1	0	1

Session IV

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
80	0	0	0	2	0	0	0	2
85	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0
95	0	1	0	1	0	0	0	2
100	0	1	0	1	0	0	0	2
105	0	0	0	0	0	0	0	0
110	1	2	0	0	0	0	0	3

Session IV

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
115	1	0	0	0	1	0	0	2
120	1	0	0	0	0	4	1	6
125	1	0	1	1	0	3	0	6
130	2	0	1	0	1	2	0	6
135	1	0	1	2	4	0	0	8
140	0	1	0	0	2	2	3	8
145	0	1	0	0	0	0	1	2
150	4	0	0	1	0	2	1	8
155	1	1	1	0	2	1	0	6
160	0	4	6	0	1	1	7	19
165	1	3	1	0	1	1	0	7
170	0	0	1	2	1	0	4	8
175	2	0	0	0	1	1	0	4
180	1	0	1	0	2	2	1	7
185	1	1	0	0	1	1	0	4
190	1	1	2	2	1	0	1	8
195	2	1	0	2	3	0	0	8
200	1	3	4	2	0	1	1	12
210	0	1	0	2	0	0	1	4
215	0	0	1	0	0	0	0	1
250	0	0	1	1	0	0	0	2
255	0	0	0	1	0	0	0	1
275	0	0	0	1	0	0	0	1

Session V

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
95	0	1	0	0	0	0	0	1
100	0	0	0	3	0	1	0	4
105	1	0	0	0	0	0	0	1
110	0	2	0	0	0	0	1	3
115	1	0	1	0	2	0	0	4
120	0	0	0	1	0	4	1	6
125	0	0	0	0	0	3	0	3
130	1	0	1	0	0	1	0	3
135	2	0	0	3	1	0	0	6
140	1	2	0	0	0	1	2	6
145	0	1	1	0	2	1	0	5
150	1	0	1	0	1	0	0	3
155	1	2	0	0	0	0	0	3
160	2	2	3	0	0	4	11	22
165	1	2	1	1	3	2	0	10
170	1	0	0	3	2	1	2	9
175	2	0	1	0	6	1	0	10
180	1	3	1	0	2	0	0	7
185	3	1	2	1	1	1	1	10
190	1	2	6	2	0	0	1	12
195	1	0	1	0	0	0	0	2
200	1	2	2	5	0	1	2	13

Session V

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
205	0	0	0	0	1	0	0	1
210	0	1	0	1	0	0	0	2
215	0	0	0	1	0	0	0	1

Total Sessions

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
65	0	0	0	0	0	1	0	1
70	0	0	0	0	0	0	0	0
75	1	0	0	0	1	0	0	2
80	2	0	0	4	0	0	0	6
85	0	0	0	0	0	1	1	2
90	0	1	0	2	2	1	1	7
95	1	4	1	1	0	1	1	9
100	5	3	3	6	5	2	1	25
105	1	0	3	0	4	1	0	9
110	4	10	0	4	4	1	3	26
115	11	1	2	7	7	0	3	31
120	3	3	6	4	2	15	4	37
125	8	10	1	10	6	13	2	50
130	6	0	7	1	9	7	4	34
135	5	0	11	8	8	4	2	38

Total Sessions

Rank:	1	4	3	2	6	7*	5	Total
X (Shot Holes)								
140	1	6	1	0	4	7	17	36
145	1	5	1	0	3	5	2	17
150	12	5	9	5	2	5	3	41
155	8	4	2	0	4	1	1	20
160	6	12	15	2	4	8	24	71
165	6	6	2	2	5	5	0	26
170	3	3	4	7	4	3	16	40
175	4	0	2	2	11	4	1	24
180	2	4	6	0	5	4	5	26
185	6	2	3	1	2	3	2	19
190	2	4	9	5	2	1	4	27
195	4	1	4	6	6	1	1	23
200	2	15	11	15	0	5	5	53
205	0	0	0	0	3	1	0	4
210	1	4	0	7	0	1	2	15
215	0	0	1	2	0	0	0	3
220	0	2	0	0	0	0	0	2
230	0	0	0	0	1	0	0	1
240	0	0	0	0	0	1	0	1
250	0	0	1	2	0	3	0	6
255	0	0	0	1	0	0	0	1
275	0	0	0	1	0	0	0	1
300	0	0	0	0	1	0	0	1

Natural Norm Formation

Group 1 (Natural)AK

Session I

	Subjects						Total
	A	B	C	D	E	F	
X (Inches)							
2	0	0	0	0	0	1	1
3	3	0	2	0	0	1	6
4	1	9	2	0	2	3	17
5	8	9	5	7	3	4	36
6	6	0	11	6	5	7	35
7	5	6	7	9	6	4	37
8	2	3	1	5	5	3	19
9	3	2	1	1	6	5	18
10	1	0	0	0	2	0	3
11	0	1	0	1	1	1	4
12	1	0	1	1	0	1	4

Group 2 (Experimental)AK

Session I

	Subjects				Total
	A	B	C	D	
X (Inches)					
0	0	0	0	1	1
1	5	0	1	2	8

Group 2 (Experimental)AK

Session I

X (Inches)	Subjects A	B	C	D	Total
2	5	3	5	6	19
3	3	6	0	4	13
4	6	1	1	5	13
5	5	5	7	0	17
6	1	7	7	6	21
7	3	1	2	2	8
8	2	4	2	3	11
9	0	2	4	0	6
10	0	1	1	1	3

Session II

X (Inches)	Subjects A	B	C	D	Total
2	1	0	1	4	6
3	1	0	2	4	7
4	9	2	5	8	24
5	9	12	5	7	33
6	7	4	7	3	21
7	2	4	4	2	12

Session II

	Subjects				Total
	A	B	C	D	
X (Inches)					
8	1	6	6	1	14
9	0	1	0	1	2
10	0	1	0	0	1

Total Sessions

	Subjects				Total
	A	B	C	D	
X (Inches)					
0	0	0	0	1	1
1	5	0	1	2	8
2	6	3	6	10	25
3	4	6	2	8	20
4	15	3	6	13	37
5	14	17	12	7	50
6	8	11	14	9	42
7	5	5	6	4	20
8	3	10	8	4	25
9	0	3	4	1	8
10	0	2	1	1	4

Group 3 (Experimental)AK

Session I

	Subjects				Total
	A	B	C	D	
X (Inches)					
1	0	1	0	0	1
2	0	0	0	1	1
3	5	10	5	8	28
4	10	13	14	14	51
5	11	5	10	5	31
6	4	1	1	2	8

Session II

	Subjects				Total
	A	B	C	D	
X (Inches)					
1	0	1	0	0	1
2	1	4	2	1	8
3	9	13	9	12	43
4	15	9	12	15	51
5	5	2	6	2	15
6	0	0	1	0	1
7	0	1	0	0	1

Total Sessions

	Subjects				Total
	A	B	C	D	
X (Inches)					
1	0	2	0	0	2
2	1	4	2	2	9
3	14	23	14	20	71
4	25	22	26	29	102
5	16	7	16	7	46
6	4	1	2	2	9
7	0	1	0	0	1

Group 1 (Experimental)SG

Session I

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
55	0	1	1	2	0	4
60	0	4	0	3	0	7
65	0	3	0	2	0	5
70	2	2	4	3	2	13
75	4	3	1	4	0	12
80	5	2	3	0	3	13
85	2	0	3	1	2	8
90	1	0	0	0	3	4

Session I

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
95	0	0	2	0	0	2
100	1	0	1	0	3	5
105	0	0	0	0	0	0
110	0	0	0	0	1	1
115	0	0	0	0	0	0
120	0	0	0	0	0	0
125	0	0	0	0	0	0
130	0	0	0	0	1	1

Session II

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
50	0	1	0	2	0	3
55	0	1	0	1	0	2
60	0	3	1	2	0	6
65	0	4	3	4	1	12
70	5	4	0	2	2	13
75	2	1	2	1	2	8
80	5	0	3	1	2	11
85	1	0	5	2	2	10

Session II

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
90	2	1	0	0	4	7
95	0	0	0	0	0	0
100	0	0	1	0	2	3

Session III

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
55	0	0	2	1	0	3
60	1	2	0	1	0	4
65	0	1	2	2	1	6
70	5	6	3	6	0	20
75	4	2	3	3	5	17
80	4	3	0	0	0	7
85	1	1	4	2	4	12
90	0	0	1	0	3	4
95	0	0	0	0	1	1
100	0	0	0	0	1	1

Total Sessions

	Subjects					Total
	A	B	C	D	E	
X (Shot Holes)						
50	0	1	0	2	0	3
55	0	2	3	4	0	9
60	1	9	1	6	0	17
65	0	8	5	8	2	23
70	12	12	7	11	4	46
75	10	6	6	8	7	37
80	14	5	6	1	5	31
85	4	1	12	5	8	30
90	3	1	1	0	10	15
95	0	0	2	0	1	3
100	1	0	2	0	6	9
105	0	0	0	0	0	0
110	0	0	0	0	1	1
115	0	0	0	0	0	0
120	0	0	0	0	0	0
125	0	0	0	0	0	0
130	0	0	0	0	1	1

Group 2 (Experimental)SG

Session I

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
45	0	0	0	0	0	1	1
50	0	0	0	0	2	4	6
55	0	1	0	0	1	6	8
60	1	0	0	0	4	2	7
65	0	1	0	0	6	4	11
70	1	4	4	0	2	1	12
75	5	6	1	2	2	0	16
80	3	2	4	1	1	0	11
85	3	3	0	6	0	0	12
90	2	1	5	6	0	0	14
95	2	0	2	2	0	0	6
100	1	0	1	1	0	0	3
105	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0
125	0	0	1	0	0	0	1

Group 3 (Experimental)SG

Session I

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
45	0	0	0	0	0	1	1
50	1	1	1	3	0	2	8
55	0	0	0	0	1	0	1
60	1	2	1	2	1	5	12
65	1	0	2	1	1	0	5
70	0	0	2	4	2	2	10
75	3	2	3	6	0	0	14
80	0	2	0	1	1	5	9
85	0	1	2	0	2	0	5
90	2	0	5	0	3	1	11
95	0	0	1	0	2	0	3
100	5	4	1	1	1	2	14
105	0	1	0	0	3	0	4
110	3	0	0	0	1	0	4
115	0	0	0	0	0	0	0
120	0	1	0	0	0	0	1
125	1	1	0	0	0	0	2
135	1	0	0	0	0	0	1
150	0	1	0	0	0	0	1
175	0	1	0	0	0	0	1
200	0	1	0	0	0	0	1

Session II

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
30	0	0	1	0	0	1	2
35	1	0	0	1	0	0	2
40	0	0	1	1	1	1	4
45	0	0	0	2	1	0	3
50	3	4	2	1	0	5	15
55	0	1	0	1	1	0	3
60	1	2	2	0	2	4	11
65	0	0	0	2	2	0	4
70	0	2	1	4	4	1	12
75	4	0	2	2	2	0	10
80	2	2	1	2	2	4	13
85	0	1	2	1	2	0	6
90	3	1	3	1	1	1	10
95	0	1	1	0	0	0	2
100	3	3	2	0	0	1	9
105	0	1	0	0	0	0	1
110	1	0	0	0	0	0	1

Session III

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
50	0	0	0	1	0	4	5
55	0	0	0	1	0	0	1
60	0	2	1	2	0	5	10
65	0	0	0	2	3	0	5
70	0	0	2	5	4	5	16
75	1	0	2	7	2	0	12
80	2	0	3	0	7	3	15
85	2	0	1	0	1	0	4
90	2	3	5	0	1	1	12
95	0	3	0	0	0	0	3
100	6	4	2	0	0	0	12
105	0	1	0	0	0	0	1
110	4	3	2	0	0	0	9
115	0	1	0	0	0	0	1
120	0	1	0	0	0	0	1
125	1	0	0	0	0	0	1

Total Sessions

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
30	0	0	1	0	0	1	2
35	1	0	0	1	0	0	2
40	0	0	1	1	1	1	4
45	0	0	0	2	1	1	4
50	4	5	3	5	0	11	28
55	0	1	0	2	2	0	5
60	2	6	4	4	3	14	33
65	1	0	2	5	6	0	14
70	0	2	5	13	10	8	38
75	8	2	7	15	4	0	36
80	4	4	4	3	10	12	37
85	2	2	5	1	5	0	15
90	7	4	13	1	5	3	33
95	0	4	2	1	2	0	9
100	14	11	5	0	1	3	34
105	0	3	0	0	3	0	6
110	8	3	2	0	1	0	14
115	0	1	0	0	0	0	1
120	0	2	0	0	0	0	2
125	2	1	0	0	0	0	3
135	1	0	0	0	0	0	1

Total Sessions

	Subjects						Total
	A	B	C	D	E	F	
X (Shot Holes)							
150	0	1	0	0	0	0	1
175	0	1	0	0	0	0	1
200	0	1	0	0	0	0	1

APPENDIX C

OBSERVER REPORT AND STATUS RATING FORMS*

AND SOLIDARITY CRITERIA

Observer_____ Date_____

Time of Observation _____

Location(s) of Interaction (Describe if not previously done)

Participants
(a) Clusters of Members

(b) Others present in situation

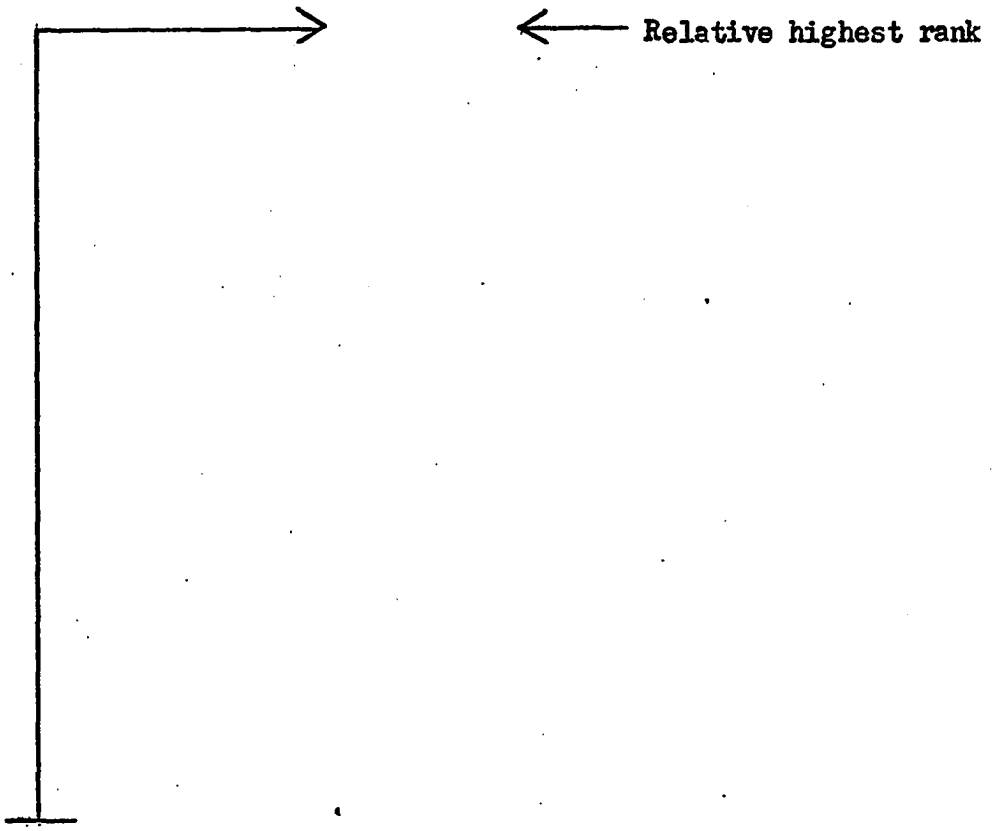
Narrative of interaction(s). (Please underline names of members.)

*Adapted from Institute of Group Relations Form, courtesy of Dr. M. Sherif

Status Rating: Observer_____ Date_____

1. Use triangles for members with stabilized positions, circles for those whose rank is not yet ascertained, broken line figures for those who can be ranked by comments of others but who are not present during the time of this report, arrows to indicate changes up or down.

2. When the observations in the main body of this report indicate that one member has shown greater effective initiative, with other indicators of high regard for him, put his name on the top beside the arrow. Place the man lowest in effective initiative, and other indicators, at the bottom of the space below. Rank other members who participated in this report period according to their observed positions relative to each other. Rate only members present except as noted above.



3. On the back of the page, summarize the main facts on which this ranking is based. Refer to specific points in your report for the day by page number.

4. Indicate the confidence or certainty with which you ranked each person for this observation. Below, list the names of all members present, including those indicated by triangles and circles. Beside each name, rate your own certainty or uncertainty for each (how confident you are in each), using one of the following degrees in each case:

Altogether Certain
Certain
Slightly Certain
Wavering (between Certainty-Uncertainty)
Slightly Uncertain
Uncertain
Altogether Uncertain

Rate the group being considered as high (H) or low (L) on the basis each of the following:

1. Average free time 3 or more members spend together, in contrast to time members spend together in pairs.

2. Violations of parents' (or authorities') restrictions to be with group.

3. Arguments with family leading to staying away overnight with other group member.

4. Frequency of use of group name by members.

5. Homogeneity of attitudes toward school.

6. Secrecy of group toward outsiders concerning group activities. Secrecy toward observer.

7. Length of time from a member's first speaking to observer to the first positive advances toward observer by group (3 or more members).

8. Length of time before first group "secret" observer permitted to hear.

9. Group norms (regarding clothing, hairstyle, verbal expressions, etc.) which vary from societal styles and usage by group's socio-economic peers.

10. Group members letting other members in on "good deals."

11. Sharing money among themselves.

12. All members stick by other group members who are in trouble.

13. Homogeneity of school grades, attendence, and extra-curricula participation.

14. Variety of situations for which norms (more or less unique) have been established.

15. Observer's general impression of solidarity.

16. Supplementary observer's general impression of solidarity.

17. Researcher's general impression of solidarity during task situation.

18. Apparent group organization during task situation:
    a. Apparent clearcut and effective chain of command
    b. Delegation of sub-tasks
    c. Dirty work given to low status
    d. Money earned—used for group project or split up among members.