DOCUMENT RESUME

ED 035 951 24 CG 005 015

AUTHOR ALLEN, VERNON L.; NEWTSON, DARREN L.
TITLE CONFORMITY, ANTICONFORMITY, AND INDEPENDENCE; REPORT FROM THE PEER GROUP PRESSURES ON LEARNING PROJECT. TECHNICAL REPORT NO. 88.
INSTITUTION WISCONSIN UNIV., MADISON. RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING.
SPONS AGENCY OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C. BUREAU OF RESEARCH.
REPORT NO TR-88
BUREAU NO BR-5-0216
PUB DATE JUN 69
CONTRACT OEC-5-10-154
NOTE 29P.

EDRS PRICE EDRS PRICE MF-$0.25 HC-$1.55
DESCRIPTORS *COLLEGE STUDENTS, CONDITIONED RESPONSE, *CONFORMITY, *GROUP DYNAMICS, LEARNING ACTIVITIES, PEER GROUPS, SOCIAL CHARACTERISTICS, SOCIAL INFLUENCES

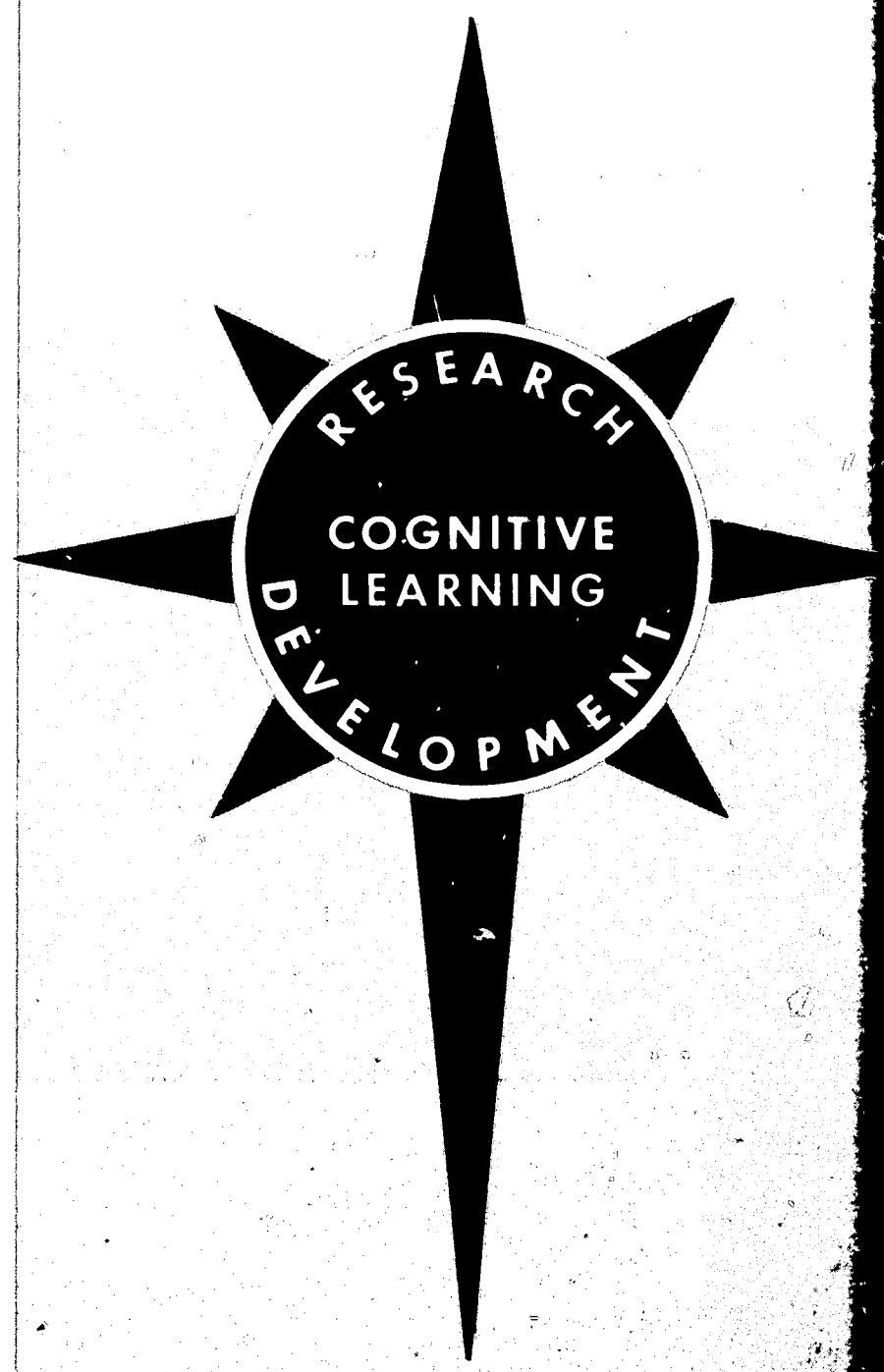
ABSTRACT

THE PRESENT STUDIES TESTED THE HYPOTHESIS THAT A SOCIAL SUPPORTER WITH NEGATIVE TASK RELATED CHARACTERISTICS WOULD BE LESS EFFECTIVE IN REDUCING CONFORMITY IN A GROUP PRESSURE SITUATION THAN A SOCIAL SUPPORTER WITHOUT SUCH NEGATIVE TRAITS. THE SUBJECTS CONSISTED OF 77 UNDERGRADUATES AT THE UNIVERSITY OF WISCONSIN AND THE HYPOTHESIS WAS TESTED IN A STANDARD CRUTCHFIELD SIMULATED GROUP. THE FOLLOWING THREE CONDITIONS WERE USED: (1) VERIDICAL SOCIAL SUPPORTER, (2) ANTICONFORMER, AND (3) UNANIMOUS GROUP CONTROL. RESULTS FAILED TO CONFIRM THE HYPOTHESIS FOR THERE WAS NO SIGNIFICANT DIFFERENCE BETWEEN THE ANTICONFORMER AND VERIDICAL SOCIAL SUPPORTER CONDITIONS. COMPARED TO THE UNANIMOUS GROUP CONTROL HOWEVER BOTH THE ANTICONFORMER AND VERIDICAL SUPPORT CONDITIONS YIELDED A STATISTICALLY SIGNIFICANT REDUCTION OF CONFORMITY. A SECOND EXPERIMENT WAS PERFORMED TO PROVIDE A MORE EXTREME TEST OF THE HYPOTHESIS. THE SAME THREE CONDITIONS WERE USED AND WERE DIFFERENT FROM THE PREVIOUS STUDY ONLY IN THE PERCENTAGE OF TRAILS ON WHICH GROUP PRESSURE WAS APPLIED. RESULTS FROM THE POST EXPERIMENTAL QUESTIONNAIRE AGAIN CONFIRMED THE SUCCESS OF THE MANIPULATION, BUT ANALYSIS OF VARIANCE FAILED TO PRODUCE A SIGNIFICANT CONDITION EFFECT. REASONS FOR THE LACK OF THE HYPOTHESIZED RELATIONSHIP WERE DISCUSSED. (AUTHOR/RSM)

CONFORMITY, ANTICONFORMITY, AND INDEPENDENCE

WISCONSIN RESEARCH AND DEVELOPMENT

CENTER FOR
COGNITIVE LEARNING



Technical Report No. 88

CONFORMITY, ANTICONFORMITY, AND INDEPENDENCE

By Vernon L. Allen and Darren L. Newtson

Report from the Peer Group Pressures on Learning Project
Vernon L. Allen, Principal Investigator

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

June 1969

Published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed herein do not necessarily reflect the position or policy of the Office of Education and no official endorsement by the Office of Education should be inferred.

Center No. C-03 / Contract OE 5-10-154

NATIONAL EVALUATION COMMITTEE

Samuel Brownell
Professor of Urban Education
Graduate School
Yale University

Launor F. Carter
Senior Vice President on Technology and Development
System Development Corporation

Francis S. Chase
Professor
Department of Education
University of Chicago

Henry Chauncey
President
Educational Testing Service

Martin Deutsch
Director, Institute for Developmental Studies
New York Medical College

Jack Edling
Director, Teaching Research Division
Oregon State System of Higher Education

Elizabeth Koontz
President
National Education Association

Roderick McPhee
President
Punahou School, Honolulu

G. Wesley Sowards
Director, Elementary Education
Florida State University

Patrick Suppes
Professor
Department of Mathematics
Stanford University

***Benton J. Underwood**
Professor
Department of Psychology
Northwestern University

UNIVERSITY POLICY REVIEW BOARD

Leonard Berkowitz
Chairman
Department of Psychology

Archie A. Buchmiller
Deputy State Superintendent
Department of Public Instruction

***James W. Cleary**
Vice Chancellor for Academic Affairs

Leon D. Epstein
Dean
College of Letters and Science

John Guy Fowlkes
Director
Wisconsin Improvement Program

Robert E. Grinder
Chairman
Department of Educational Psychology

H. Clifton Hutchins
Chairman
Department of Curriculum and Instruction

Clauston Jenkins
Assistant Director
Coordinating Committee for Higher Education

Herbert J. Klausmeier
Director, R & D Center
Professor of Educational Psychology

Donald J. McCarty
Dean
School of Education

Ira Sharkansky
Associate Professor of Political Science

Henry C. Weinlick
Executive Secretary
Wisconsin Education Association

M. Crawford Young
Associate Dean
The Graduate School

EXECUTIVE COMMITTEE

Edgar F. Borgatta
Brittingham Professor of Sociology

Max R. Goodson
Professor of Educational Policy Studies

Russell J. Hosler
Professor of Curriculum and Instruction and of Business

***Herbert J. Klausmeier**
Director, R & D Center
Professor of Educational Psychology

Wayne Otto
Professor of Curriculum and Instruction (Reading)

Robert G. Petzold
Associate Dean of the School of Education
Professor of Curriculum and Instruction and of Music

Richard L. Venezky
Assistant Professor of English and of Computer Sciences

FACULTY OF PRINCIPAL INVESTIGATORS

Ronald R. Allen
Associate Professor of Speech and of Curriculum and Instruction

Vernon L. Allen
Associate Professor of Psychology
(On leave 1968-69)

Nathan S. Blount
Associate Professor of English and of Curriculum and Instruction

Robert C. Calfee
Associate Professor of Psychology

Robert E. Davidson
Assistant Professor of Educational Psychology

Gary A. Davis
Associate Professor of Educational Psychology

M. Vere DeVault
Professor of Curriculum and Instruction (Mathematics)

Frank H. Farley
Assistant Professor of Educational Psychology

John Guy Fowlkes (Advisor)
Professor of Educational Administration
Director of the Wisconsin Improvement Program

Lester S. Golub
Lecturer in Curriculum and Instruction and in English

Max R. Goodson
Professor of Educational Policy Studies

Warren O. Hagstrom
Professor of Sociology

John G. Harvey
Associate Professor of Mathematics and Curriculum and Instruction

Herbert J. Klausmeier
Director, R & D Center
Professor of Educational Psychology

Burton W. Kreitlow
Professor of Educational Policy Studies and of Agricultural and Extension Education

Richard G. Morrow
Assistant Professor of Educational Administration

Wayne Otto
Professor of Curriculum and Instruction (Reading)

Milton O. Pella
Professor of Curriculum and Instruction (Science)

Thomas A. Romberg
Assistant Professor of Mathematics and of Curriculum and Instruction

Richard L. Venezky
Assistant Professor of English and of Computer Sciences

MANAGEMENT COUNCIL

***Herbert J. Klausmeier**
Director, R & D Center
Acting Director, Program 1

Mary R. Quilling
Director
Technical Section

Thomas A. Romberg
Director
Programs 2 and 3

James E. Walter
Director
Dissemination Section

Dan G. Woolpert
Director
Operations and Business

* COMMITTEE CHAIRMAN

STATEMENT OF FOCUS

The Wisconsin Research and Development Center for Cognitive Learning focuses on contributing to a better understanding of cognitive learning by children and youth and to the improvement of related educational practices. The strategy for research and development is comprehensive. It includes basic research to generate new knowledge about the conditions and processes of learning and about the processes of instruction, and the subsequent development of research-based instructional materials, many of which are designed for use by teachers and others for use by students. These materials are tested and refined in school settings. Throughout these operations behavioral scientists, curriculum experts, academic scholars, and school people interact, insuring that the results of Center activities are based soundly on knowledge of subject matter and cognitive learning and that they are applied to the improvement of educational practice.

This Technical Report is from the Peer Group Pressures on Learning Project in Program 1. General objectives of the Program are to generate new knowledge about concept learning and cognitive skills, to synthesize existing knowledge, and to develop educational materials suggested by the prior activities. Contributing to these program objectives, this project is directed toward identification of the effects of peer group pressures on the utilization of concepts already learned and on the learning of new concepts.

CONTENTS

LIST OF TABLES

ABSTRACT

The present studies tested the hypothesis that a social supporter with negative task-related characteristics would be less effective in reducing conformity in a group pressure situation than a social supporter without such negative characteristics. The hypothesis was derived from investigations of conformity and the social support phenomenon. The hypothesis was tested in a standard Crutchfield simulated group. Three conditions were used in the first experiment: Unanimous Group control, Veridical Social Supporter, and Anticonformer. The anticonformer was intended to provide social support from a person negative on task-related characteristics; postexperimental questionnaire data indicated that this was successful.

Results failed to confirm the hypothesis. There was no statistically significant difference between the Anticonformer and Veridical Social Supporter conditions. Compared to the Unanimous Group control, both the Anticonformer and Veridical Social Support conditions yielded statistically significant reduction of conformity ($p < .01$).

In order to assure that the Anticonformer condition had yielded true independence, and not anticonformity, anticonformer influence scores were computed from responses on neutral trials. Correlational analysis confirmed that true independence had occurred.

Correlational analyses were also performed on the mean conformity scores and questionnaire ratings of the anticonformer and pressure group in order to provide a more sensitive check for the hypothesized relationship; no meaningful trends were found.

A second experiment was then performed in hopes of providing a more extreme test of the hypothesis. Total number of trials were increased, and the percentage of pressure trials was reduced from 50% to approximately 5% in order to make the negative task characteristics of the anticonformer as extreme as possible. The same three conditions—Unanimous Group control, Veridical Social Support, and Anticonformer—were used. These were different from the conditions in the previous study only in the percentage of trials on which group pressure was applied.

Results from the postexperimental questionnaire again confirmed the success of the manipulation, but analysis of variance failed to yield a significant conditions effect. Subsequent tests indicated that the amount of conformity obtained was not significantly different from zero. This failure was attributed to the length of the series of trials, to the extreme predictability of group responses, and to the instability of the dependent measure of conformity.

Related research on social support was examined and discussed, and it was concluded that the results were consistent with other studies on the social support phenomenon. Reasons for the lack of the hypothesized relationship were then discussed.

I
INTRODUCTION

Within the extensive literature on conformity (Allen, 1965) one finding has been particularly stable: that a person in a group pressure situation is liberated from the effects of that pressure when provided with a partner who agrees with him. While much research and theory has been devoted to factors such as conditions of responding, attractiveness of the group, and the nature of the task in promoting conformity, little has been done to examine the effects of situational factors upon this consistent finding (Hollander & Willis, 1967; Allen, 1965).

In the original experiment demonstrating the social support effect, Asch (1951) reported that social support— having one confederate give correct responses in an otherwise unanimously incorrect group—reduced conformity to 5.5% incorrect or conforming responses on judgments of simple visual stimuli. This was contrasted with conforming responses when subjects were faced with a unanimously incorrect group. In a later study, Asch (1956) noted that in post-experimental interviews subjects in the Social Support condition reported feelings of closeness and warmth toward their partner, although they denied that he was in any way responsible for their independence.

In an attempt to explain the social support phenomenon, Asch (1956) tested two alternative explanations. One proposed that the social support effect was due to the subjects not having to face the group alone—an intrapersonal, anxiety-reduction explanation. The second proposed explanation was a more social one: group unanimity is seen as a necessary condition for the exertion of pressure for conformity, and social support merely breaks the unanimity of the group. To test these hypotheses Asch performed an experiment in which one person deviated from the pressure group so as to be more extremely incorrect than they—an "extreme dissenter." Asch reported that the extreme dissenter reduced conformity from 37% in a control condition to 9%. From this finding Asch concluded that lack of unanimity was the crucial factor in the operation of the social support phenomenon.

Allen and Levine (1968a) criticized Asch's conclusion on serveral grounds. First, Asch reported the studies and findings semi-anecdotally. There was no indication of the order of experiments done, and no tests of significance were reported. Also, Asch used items of visual content only, permitting serious questions about the generalizability of his findings—on highly objective items, results might be highly specific. Finally, since Asch used only three comparison lines in his studies, the pressure group in his dissenter condition was answering at a moderately incorrect point; in the control it was at the extremely incorrect point on half of the trials. As a number of investigators have demonstrated (Helson, Blake, & Mouton, 1958; Tuddenham, 1961), amount of conformity is a function of extremeness of the pressure position. This confounding in the Extreme Dissenter condition could have been partly responsible for the reduction in conformity that Asch reported. Allen and Levine replicated the extreme dissenter study with both objective and subjective items. They found results consistent with Asch on visual items but on opinion items, extreme dissent failed to yield a significant decrease in conformity.

One puzzling aspect of the social support phenomenon is its failure to generalize. Asch (1951), impressed by the dramatic decreases in conformity yielded by social support, conducted a study in which subjects were faced with a social support situation on the first half of the trials in a situation and by a unanimous group on the second half. Asch predicted that, having experienced social support, subjects would be more independent than controls in the face of the unanimous group. Quite the opposite occurred; conformity increased from 5.5% with social support to 28.5% without it. In the opposite combination, first unanimous pressure

then social support, conformity abruptly decreased to 8.7% with the arrival of social support.

Subsequent investigations have closely examined this aspect of social support. Allen and Bragg (article in preparation) failed to obtain generalization of social support across different types of items. In their study, social support was given on a preliminary series of trials of one type (e.g., visual), and subjects were then faced with a unanimous group on another type (e.g., opinion). Generalization of independence across types of items failed to occur. Allen and Boyanowsky (in press) tested for generalization across type of item with a larger number of social support trials, and in one condition, with all members of the group alternating as social supporters. Again, generalization failed to occur. Allen and Lepinski (unpublished manuscript) again tried to obtain generalization, using experimenter feedback—the experimenter announced the correct answer after each trial. Subjects remained independent only as long as experimenter feedback was maintained; again, this particularly strong type of social support failed to yield generalization effects across the type of item.

These negative findings are somewhat surprising in light of findings on conformity and commitment to a course of action. Asch (1956) reported a high degree of consistency in subjects' responses to a unanimous group—total conformity could be reliably predicted from the subject's behavior on the first few pressure trials. Most subjects who conformed did so in the first two trials; subjects who remained independent through the first eight trials never conformed (out of 36 pressure trials).

These results suggest that subjects may react to factors in the social support situation considerably different from those in the unanimous group situation. There does not seem to be much commitment to independence in the social support situation, and subjects appear to react in a highly trial-specific manner.

Allen and Levine (1968b), in an attempt further to explain the social support phenomenon, tested the hypothesis that social support provided, in addition to the "emotional comfort" of not being alone in opposition to a majority, an independent assessment of reality in the situation. To test this hypothesis they used two conditions of social support: one with a veridical social supporter giving consistently correct or modal answers, the second with a social supporter who obstensibly was unable to see the items (he wore thick glasses and indicated that he would answer "randomly") yet also correctly dissented from the group. Results showed that while both social support conditions produced significant decreases in conformity as compared to a control, the veridical social supporter was significantly more effective than the one whose reliability was in doubt.

In a recent study, Allen and Levine (1968c) reported another manipulation having impact on the social support phenomenon, "contact." In this experiment subjects either met a member of their group before the experiment or did not. In a unanimous group control, contact served to increase conformity. In the two conditions of social support, with the "contacted" person acting as social supporter, contact served to decrease conformity significantly more than in the usual Social Support condition. It is likely that the "contact" made the situation less anonymous for the subject; the increase in conformity obtained by a unanimous group is consistent with previous research on the public–privateness of responding—the more public the conditions of responding, the more conformity.

In the same study, social support was compared when the social supporter answered first and when he answered in the fourth position. While social support in both positions significantly reduced conformity, social support in the first position was significantly more effective than social support in the fourth position. Allen and Levine suggested that this differential effect was due to the supporter in the first position being perceived as giving a more unbiased estimate of reality: he is presumably not influenced by the group, as the social supporter answering after the group may be. For this reason, subjects may put more faith in his judgment than that of a person who is presumably under pressure at the time he responds, and may be merely an anticonformist.

Hardy (1957) reported an experiment demonstrating an interesting relationship between a personality variable, need-affiliation, and reaction to social support. Hardy used attitudes toward divorce and placed subjects in 7-person groups opposing the subject. Group pressure was of a considerably more active type than in most situations employed: the confederates actively argued with subjects. Hardy measured both conformity and private attitude change. The presence of social support failed to reduce conformity significantly but did produce significant reductions in attitude change. Hardy obtained measures of need-affiliation and analyzed data on the basis of these scores. High need-affiliation subjects showed a conformity reduction almost to zero with social support; low need-affiliation subjects conformed in the social support condition but not when faced with a unanimous group. Apparently, low need-affiliation subjects were reluctant to be identified with one

person when faced with a group but were not reluctant to deviate from the group alone.

It has been shown that attractiveness to a group enhances its ability to exert influence (Festinger, 1953; Gerard, 1954; Walker & Heyns, 1962). These findings, plus everyday observation, suggest that the attractiveness of the social supporter may be a potent variable in his effectiveness in reducing conformity. If a person finds an opinion he holds warmly endorsed by someone he dislikes or whose judgment he strongly questions, he may be more susceptible to influence, rather than less. In an experimental situation, a disliked social supporter may be unable to offer the "emotional comfort" that Allen and Levine (1968b) suggested is a significant factor in conformity reductions.

Malof and Lott (1962) examined this question. Using Asch's group pressure situation and visual judgment stimuli similar to the ones he employed, Malof and Lott provided white subjects rated either high or low on ethnocentrism (and particularly attitudes toward Negroes) with either white or Negro social support. Hypotheses were that high prejudiced whites would be as independent as low prejudiced whites when their partner was white but that high prejudiced whites would conform more to the all-white pressure group when their social supporter was Negro. They found no difference in independence as a function of race of the social supporter. Both high- and low-prejudiced subjects showed equal reduction of conformity with white and Negro social supporters. They concluded that characteristics of the social supporter were not relevant to the effectiveness of social support—simply breaking the unanimous group was sufficient for conformity reduction.

Malof and Lott's conclusions were weakened somewhat by two problems with the study. First, they used visual items only; the social supporter's presumably negative racial characteristics could not reasonably be assumed to have any effect on his visual abilities. If items of a more subjective, socially relevant nature, such as opinions, had been used, Malof and Lott might have confirmed their hypotheses. Second, a control or Unanimous Group condition including the social supporter was tested prior to the Social Support condition. Subjects were first given a series of trials faced by a unanimous majority that was incorrect on 12 of 18 trials; in the next 18 trials all but one of the group gave erroneous responses on 12 of the trials. Thus, the negative social supporter had previously been associated with the pressure group, all the rest of which was white. A face-to-face group was used; since the white majority had not reacted to the Negro as a group member in the first half of the trials, the relevance of his racial characteristics to agreement with him may have been implicitly deemphasized for the prejudiced subjects.

THE PRESENT STUDY

The present study was designed to remedy these two difficulties by making the undesirable characteristics of the social supporter relevant to the task at hand and to eliminate the confounding of social support with the pressure group. As Jones (1964) has shown, an anticonformer is generally disliked. Thus, it was decided to use an anticonformer as a social supporter—a person who would be disliked on a task-relevant dimension and who would never be identified with the pressure group. On items where group pressure was applied, his behavior could be made identical to that of a true social supporter, i.e., identical to the response usually given in social support studies. A true social supporter is very well liked by subjects in such situations, so the comparison of true social support and an anticonformer should produce a very strong contrast in liking of the social supporter.

Specifically, the hypothesis of the present study was as follows: a negatively valued social supporter, whose negative characteristics are relevant to the task, is less effective in reducing conformity on that task than a social supporter without such negative characteristics. A true social supporter is expected to reduce conformity significantly, as opposed to a unanimous control group, consistent with previous studies. The Anticonformer (negatively valued social supporter) condition is not expected to differ from the unanimous group control.

II

METHOD: EXPERIMENT ONE

SUBJECTS

Subjects were 77 undergraduates, 38 males and 39 females, enrolled in an introductory psychology course at the University of Wisconsin. They received experiment point credits for participation; participation was voluntary but contributed additional credit toward the course grade. Data from an additional 20 subjects were eliminated because of suspicion of the experimental deception as determined by a postexperimental questionnaire and interview (11 males, 9 females). These were distributed equally over the experimental conditions. Five subjects of the same sex were scheduled for each experimental session.

APPARATUS

A standard Crutchfield (1955) apparatus was used. It consisted of five booths containing a panel of signal lights and switches and a master control panel in an adjacent room. Within each booth the subject faced a panel of 45 green lights, in rows nine across and five down; at the left of the green lights were five red lights in a vertical row numbered 1 to 5 from top to bottom. The green lights were numbered 1 through 9, left to right. Below the lights were nine toggle switches labeled 1 through 9 and on a continuum from "Very Strongly Agree" to "Very Strongly Disagree."

The master panel in the adjacent room allowed the experimenter to control the red position lights in each booth and to control the green signal lights. In this manner it was possible to simulate the first four responses. The booths were separated by high partitions that limited the subject's view to his own panel and the screen at the front of the room.

A slide projector operated from the control room presented the stimuli on a screen facing the five booths, and an intercom was used for communication between the experimenter and the subjects while testing. Subjects' responses were indicated on a grid on the master panel, and were recorded from there.

STIMULI

Thirty-six slides were selected from a series developed and standardized by Tuddenham, Macbride, and Zahn (1956). There were 12 slides of each of three kinds of items—opinion, information, and visual. Opinion items consisted of statements such as "There's no use doing anything for people; they don't appreciate it," or "I cannot do anything well," and subjects responded by using one of the nine switches according to the "Very Strongly Agree" —"Very Strongly Disagree" scale. Information items consisted of questions of matters of fact; for example, "How many of the nine Supreme Court justices are over 35 years of age?" All of these items could be answered by a number from 1 through 9, and subjects responded by using the appropriately numbered switch. Visual items asked for judgments of relations between lines, geometric forms, etc. For example, one vertical line would be set beside nine horizontal lines numbered 1 through 9, all of different lengths, and the subject would be asked, "Which of the numbered lines has the same length as the line marked C?"

Of the 36 items, 18 were used as group pressure items, with the majority of the simulated group answering at the 95th percentile of responses given by Tuddenham's standardization groups. On the other 18 items the majority of the group was simulated to give the modal response. Although Tuddenham's standardization of these items was done in 1956, Allen & Levine (1968c) repeated the standardization on a group of 300 introductory psychology students at the University of Wisconsin and obtained virtually identical results for Tuddenham's items.

The 36 stimuli were balanced within three blocks of 12; each block contained four each of visual, information, and opinion items, with order of type of item, order of pressure and neutral trials, and order of unanimous or variable responses identical within each block. Unanimous responses were those where the majority of the group gave identical responses; variable responses were those where the group majority gave responses varying around the modal or pressure point, i.e., two would give one answer, a 6, for example, and the other two would give 7 as their answer. Each block of trials was presented in each position within each condition.

DESIGN

The experiment was a four-factor analysis of variance design. There were three experimental treatments, two levels of sex, three types of items, and three orders of presentation of the stimuli.

Three experimental conditions were used: Unanimous Group, Veridical Social Support, and Anticonformer.

The Unanimous condition was used as a control. It consisted of all four persons of the simulated group giving erroneous responses on the pressure trials; on the neutral trials all four gave modal (correct or popular) responses.

The Veridical Social Support condition consisted of the first three simulated respondents answering as in the Unanimous condition, giving erroneous or non-modal answers on the pressure trials. In this condition the Number Four person, however, gave the modal response on all trials. Thus, on neutral trials, all four persons gave modal responses.

The Anticonformer condition was effected by having the first three persons answering as in the other two conditions—non-modal responses on half the trials and modal responses on half the trials—but with person Number Four always opposed to the group. Thus, while the social supporter (the Number Four person in the Social Support condition) was in agreement with the other three members of his group on the neutral trials half the time, the anticomformer (the Number Four person in the Anticonformer condition) never agreed with the other three persons. On pressure trials, while the group gave the erroneous response, the anticonformer gave the correct or modal response; on neutral trials the reverse occurred, with the first three persons giving modal answers and the anticonformer giving erroneous responses.

PROCEDURE

Subjects were met at a waiting room and brought to the experimental room by the experimenter. There they were seated at the booths and given instructions and practice trials designed to convince them that they were each answering in a different position, and that the four answers other than their own that were indicated on their panel by lights were indeed those of the other four persons.

During the practice trials and subsequent experiment the lights in the room were dimmed. Subjects were cautioned not to flip their switches forcefully when responding; this was done so that they would not hear others' switches and realize that they were all answering in the Number Five position. This warning, plus the noise of the slide projector immediately behind them, was effective.

After the practice trials all subjects were then placed in the fifth (last) answering position, and the response received on the boards of all subjects were provided by the experimenter. As each slide was presented the experimenter read the question appropriate to each item over the intercom.

Following the presentation of the 36 items, a questionnaire was administered and subjects were thoroughly debriefed and asked not to talk about the experiment to others.

DEPENDENT MEASURES

Data from the experiment consisted of a mean conformity score for each subject for each of the three types of items. For responses on each pressure item of the opinion or information type, the subject's response in the experiment was subtracted from his previous response to the same items on the questionnaire given at the beginning of the semester. If the subject changed his response toward the group, he was given a positive score of the appropriate magnitude; if he moved from his original position in a direction away from the group, he was given a negative score. If his original position was the same or more extreme than the group's, i.e., more extreme than the 95th percentile of normal responses, no score could be computed for that item. The algebraic mean of these individual item scores was then taken. In the case of visual items, as no previous response of the subject was available, difference scores computed from the mode of Tuddenham's standardization groups were used in the manner above.

Questionnaire data consisted of 14 rating scales; on seven, subjects rated person Number

Four, and on seven, they rated the rest of the group. Each of the seven dimensions consisted of a 10-point scale going from one characteristic to its opposite: intelligent–unintelligent, sincere–insincere, dependable–unreliable, conforming–independent, accurate–inaccurate, conservative–liberal, likable-unlikable. For purpose of analysis, one end of the scale was designated 1 and the other 10, and numeric scores were then computed. An effort was made to assign the negative characteristic the low end of the scale, but in the case of some types of dimensions, such as liberal–conservative, subjects varied widely in which end they considered negative. For this reason, no general positive or negative rating was computed.

To avoid pointing out to subjects that the Number Four person was expected to be distinguished from the group, as he was in two of the three conditions, all subjects were asked to answer about the person who had answered immediately before them, with the Number One person instructed to answer about person Number Five. As all were answering in the Number Five position, the data were collected with the minimum suspicion possible.

ANALYSIS

An analysis of variance of the mean conformity scores was performed. Factors analyzed for were condition, sex, type of item, and order of presentation. Subsequently, *t* tests on the mean conformity scores for each of the conditions and type of item were made.

Ratings of person Number Four and the rest of the group, obtained from the questionnaire, were computed; a variance estimate was obtained; and the following tests were made:

(a) Test for homogeneity of variance in the ratings of person Number Four and the rest of the group within each condition (*F* tests).

(b) Test for homogeneity of variance in ratings of person Number Four and the group across conditions (*F* tests).

(c) Comparison of the rating of person Number Four and the rest of the group on the same dimension within each condition (*t* tests).

(d) Comparisons of the rating of person Number Four on each dimension across conditions (*t* tests).

(e) Comparisons of the rating of the group on each dimension across conditions (*t* tests).

In order to further explain results of the Anticonformer condition, three correlation analyses were performed. Mean conformity scores for each sex and type of item were correlated with questionnaire ratings of the group and of the anticonformer. In addition, mean influence scores were computed from the responses on the neutral trials in the manner of conformity scores on the pressure trials, indicating movement away from the modal group toward the erroneous anticonformer, and correlated with the questionnaire data. Finally, mean conformity scores were correlated with the anticonformer influence scores.

III

RESULTS: EXPERIMENT ONE

PERCEPTION OF THE ANTICONFORMER AND VERIDICAL SOCIAL SUPPORTER

If the experimental manipulation were successful, the anticonformer should have been perceived more negatively than the veridical social supporter. On the postexperimental questionnaire, subjects were asked to rate person Number Four on seven dimensions. Results, as shown in Table 1, indicated that relative to the veridical social supporter the anticonformer was rated as significantly less intelligent, sincere, dependable, accurate, and likable. Interestingly, the anticonformer was seen as significantly more liberal than the veridical social supporter. Both the anticonformer and the veridical social supporter were rated as highly independent. Responses of subjects to the anticonformer tended, however, to be somewhat bimodal, either fairly strongly positive or negative. This was reflected in statistically significant differences in variance between the anticonformity and veridical dissent conditions on perception of person Number Four's intelligence, sincerity, independence, accuracy, and likableness. These data are presented in Table 2.

Overall, then, the experimental manipulation was successful. Subjects perceived the anticonformer as significantly more negative than the veridical social supporter on task-related characteristics, such as accuracy and intelligence.

Table 1

Mean Ratings of Veridical Social Supporter and Anticonformer

Scale	Veridical Social Supporter	Anticonformer
Intelligent—Unintelligent	8.6	6.4*
Sincere—Insincere	9.3	6.1*
Dependable—Unreliable	8.1	5.5*
Independent—Conforming	8.1	9.0
Accurate—Inaccurate	8.2	5.1*
Liberal—Conservative	5.8	7.0
Likable—Unlikable	8.0	6.5*

* $p < .05$

Note: High numbers indicate "positive" traits; on conservative-liberal, high score indicates "liberal."

Conformity Data

Analysis of variance on conformity scores indicated a Condition's main effect significant at beyond the .001 level. This is shown in the results of analysis of variance in Table 3. No other factors or interactions yielded statistical significance. Tests on the overall means, shown in Table 4, indicated that both the Anticonformer and Veridical Social Supporter conditions significantly reduced conformity when compared to the Unanimous group control ($p < .01$). The predicted difference between the Anticonformer and Veridical Social Supporter conditions was not confirmed. Table 5 presents the analysis by type of item. The same results held although differences were weaker for visual items than for opinion and information items.

Table 2

Variance in Ratings of Veridical Social Supporter and Anticonformer

Scale	Veridical Social Supporter	Anticonformer
Intelligent–Unintelligent	.91	5.12**
Sincere–Insincere	.70	8.65**
Dependable–Unreliable	4.27	6.85
Independent–Conforming	5.11	1.37**
Accurate–Inaccurate	1.23	8.09**
Liberal–Conservative	5.11	5.80
Likable–Unlikable	2.33	4.92*

* $p < .05$

** $p < .001$

Additional Questionnaire Data

After rating person Number Four on each dimension, subjects were asked to rate the rest of the group on the same dimensions. In the Unanimous Group condition, where person Number Four did not act any differently from the other members of his group, he tended to be seen as a bit more reliable. These results are shown in Table 6. The social supporter was strongly differentiated from the other members of his group, being seen as more intelligent, sincere, dependable, independent, accurate, and likable. Indeed, the only scale on which he was not differentiated from the other members of his group was on the conservative–liberal dimension, where both the social supporter and the group were rated almost exactly in the middle, as can be seen in Table 7. In contrast, Table 8 shows that the anticonformer was rated as significantly more liberal and independent than the other members of his group but was not differentially evaluated on the other five dimensions.

Table 3

Analysis of Variance on Mean Conformity Scores

Variable	Mean Square	df	F
A (Conditions)	3.670	2	8.95**
B (Sex)	.339	1	1
C (Order of Presentation)	.458	2	1.12
D (Type of Item)	.051	2	1
AB	.176	2	1
AC	.359	4	1
BC	1.106	2	2.71*
AD	.245	4	1
BD	.017	2	1
CD	.392	4	1.34
ABC	.560	4	1.37
ABD	.414	4	1.41
ACD	.230	8	1
BCD	.154	4	1
ABCD	.111	8	1
S(ABC)	.405	59	
S(ABC)D	.285	118	

* $p < .10$

** $p < .001$

Table 4

Mean Conformity Scores by Condition

Condition	
Unanimous Group	.535
Veridical Social Support	.128*
Anticonformer	.157*

* Differs from Unanimous Group at the .01 level

Table 5

Mean Conformity Scores by Condition and Type of Item

Condition	Visual	Opinion	Information
Unanimous Group	.463	.578	.563
Veridical Social Support	.253	.024**	.075**
Anticonformer	.165*	.157**	.147**

* Differs from Unanimous Group ($p < .10$)
** Differs from Unanimous Group ($p < .10$)

Table 6

Mean Ratings of Person Four and Group in Unanimous Group Condition

Scale	Person 4	Group
Intelligent–Unintelligent	6.1	5.6
Sincere–Insincere	6.5	6.2
Dependable–Unreliable	4.4	5.6*
Independent–Conforming	3.0	2.9
Accurate–Inaccurate	4.1	4.3
Liberal–Conservative	4.6	4.5
Likeable–Unlikable	6.1	6.0

* $p < .10$

Additional Analysis of the Anticonformer Condition

In order to assess more fully what occurred in the Anticonformer condition, a number of correlational analyses were performed. Due to the tendency toward bimodality in the ratings of the anticonformer, it was hoped that this might cast

Table 7

Mean Ratings of Veridical Social Supporter and Group in Social Support Condition

Scale	Social Supporter	Group
Intelligent–Unintelligent	8.6	5.7*
Sincere–Insincere	9.3	6.0*
Dependable–Unreliable	8.1	6.1*
Independent–Conforming	8.1	4.0*
Accurate–Inaccurate	8.2	4.0*
Liberal–Conservative	5.8	5.6
Likable–Unlikable	8.0	5.9*

* $p < .01$

Table 8

Mean Ratings of Anticonformer and Group in Anticonformer Condition

Scale	Anticonformer	Group
Intelligent–Unintelligent	6.4	6.0
Sincere–Insincere	6.1	6.7
Dependable–Unreliable	5.5	6.1
Independent–Conforming	9.0	3.9**
Accurate–Inaccurate	5.1	4.5
Liberal–Conservative	7.0	4.9*
Likable–Unlikable	6.5	6.4

* $p < .01$
** $p < .001$

some light on the failure to confirm the hypothesis. Due to possible sex-role differences in attitudes toward deviation, it was decided to analyze separately by sex. Pearson product-moment correlations were used.

Correlations were computed between amount of conformity and ratings of the anticonformer. Results in Table 9 failed to show any consistently strong trends, although for males most of the correlations were negative (15 of 21), while this was not the case for females (only 8 of 21 negative). Few correlations for either sex approached significance, however, with only one beyond the .05 level. For females, conformity on information items was positively correlated with perceived accuracy of the anticonformer ($r = .758$, $p < .001$); i.e., the more females conformed on visual items the more they tended to rate the anticonformer as likable ($r = .489$, $p < .06$). For males, results were weaker, but more in line with the hypothesis. The more males conformed on visual items, the less likable they tended to rate the anticonformer ($r = .401$, $p < .13$).

Conformity scores were also correlated with ratings of the group in the anticonformer condition. Again the analysis failed to differentiate clearly among subjects, as seen in Table 10. For males, there was a positive but nonsignificant correlation between conformity on information items and ratings of accuracy of the group ($r = .403$, $p < .12$). This was the only correlation for males that approached significance in this analysis. For females, four of the 21 correlations approached significance. Conformity on information items tended to be negatively correlated with rated sincerity and dependability of the pressure group ($r = .418$, $p < .12$ and $r = .451$, $p < .09$, respectively). Rated likableness of the group tended to be positively correlated with conformity on opinion items ($r = .464$, $p < .08$) and on visual items ($r = .439$, $p < .10$). From these data and the correlations reported above for females between liking of the anticonformer and conformity, there is a suggestion that females who conformed in the situation liked everyone in the group more than females who were extremely independent. These results should be approached with extreme caution; only 5 of 40 correlations were significant at the .05 level, and this is about what would be expected by chance alone.

Anticonformer Influence

Mean anticonformer influence scores were computed for all subjects from responses given on neutral items. These scores were computed in the manner of conformity scores, except that movement away from the correct group toward the erroneous anticonformer was measured. This was necessary because subjects who answered identically with the anticonformer on both neutral and pressure items would be

Table 9

Correlation of Mean Conformity Scores with Questionnaire Ratings of Anticonformer

	Males N=16			Females N=15		
		Information			Information	
Scale	Opinion		Visual	Opinion		Visual
Intelligent–Unintelligent	-.019	.070	.282	-.236	.380	.190
Sincere–Insincere	-.137	-.042	.040	-.097	.216	-.032
Dependable–Unreliable	-.154	-.124	-.085	-.173	.145	.179
Independent–Conforming	-.077	-.311	-.312	.430	-.004	-.356
Accurate–Inaccurate	-.226	-.167	.287	-.184	.758**	.111
Liberal–Conservative	-.228	.266	.372	.090	-.019	.020
Likable–Unlikable	-.281	-.278	-.401	.198	.236	.489*

** $p < .001$ * $p < .06$

Table 10

Correlation of Mean Conformity Scores with
Questionnaire Rating of Group in Anticonformer Condition

Scale	Males N=16			Females N=15		
	Opinion	Information	Visual	Opinion	Information	Visual
Intelligent–Unintelligent	.266	-.014	-.079	.043	.088	.320
Sincere–Insincere	.151	-.002	.086	.154	-.418*	.113
Dependable–Unreliable	.065	-.238	.038	.348	-.451**	.332
Independent–Conforming	.381	-.102	.041	-.193	-.377	.202
Accurate–Inaccurate	.084	.403	.089	-.054	-.333	.247
Liberal–Conservative	-.172	-.182	.113	-.354	.266	-.016
Likable–Unlikable	.108	.052	.042	.464*	-.228	.439#

** $p < .09$ * $p < .08$ # $p < .10$

scored on pressure items alone as being independent; if the anticonformer does not create independence but simply provides an alternate source of influence, producing anticonformity, then it should be indicated in these scores. Mean anticonformer influence scores are reported in Table 11. Unfortunately, these data are not directly comparable to the mean conformity scores; they are based on different items, and items may vary considerably on how "influenceable" subjects' responses to them may be.

Table 11

Mean Anticonformer Influence on Neutral Items

Type of Item	Males	Females	Combined
Opinion	1.56	1.52	1.54
Information	.07	.42	.24
Visual	.26	.18	.22

Anticonformity can be analyzed by correlating conformity scores with anticonformer influence scores. If subjects were simply following the anticonformer they would have low conformity scores and high anticonformer influence scores yielding a negative correlation. This analysis was performed (Tables 12, 13, 14) and yielded only one significant correlation. This correlation, however, was positive. Conformity on visual items correlated positively with anticonformer influence on information items ($r = .371$, $p < .04$). None of the other correlations approached significance. It must be remembered that conformity scores in the Anticonformer condition were very low—averaging less than in the Veridical Social Supporter condition. Subjects in this condition who did conform at all, did so only to a slight degree. The positive correlation noted above suggests that some subjects were "compromising" between the pressure group and the opposing anticonformer, either to avoid agreeing with either of two disliked influence sources or to minimize antagonism between the two.

Correlation of anticonformer influence scores with questionnaire ratings yielded some information on this point but was confused by item differences. Correlations of anticonformer influence and ratings of the anticonformer (Table 15) and correlations of anticonformer influence and ratings of the group (Table 16) were performed. Results were negligible for females, but for males some suggestive results were obtained. On neutral items, at least, perception of the anticonformer did have some effect. Males who rated the anticonformer as unintelligent, insincere, and unreliable were least likely to deviate from the group on neutral visual items.

Perhaps more interesting was the reaction of males to the group. Of the 21 correlations of ratings of the pressure group and of anticonformer influence, 19 were negative although only four reached or approached significance. Males who disliked the group were apparently ready to deviate even when it was correct. As with the previous correlation analysis, however, these results may be due to chance alone, as only 9 of 84 correlations approached significance.

Table 12

Correlations Between Conformity and Anticonformer Influence for Males

	Anticonformer Influence		
		Information	
	Opinion		Visual
Conformity			
Opinion	.182	.367	-.270
Information	.003	-.025	.359
Visual	.020	.418*	-.162

* $p < .02$

Table 13

Correlations Between Conformity and Anticonformer Influence for Females

	Anticonformer Influence		
		Information	
	Opinion		Visual
Conformity			
Opinion	.006	-.211	.430
Information	-.252	.344	.031
Visual	.078	.446*	.297

* $p < .10$

Table 14

Correlations of Conformity and Anticonformer Influence for Males and Females Combined

	Antinconformer Influence		
		Information	
	Opinion		Visual
Conformity			
Opinion	.088	.091	.052
Information	.127	.133	.211
Visual	.041	.371*	-.015

* $p < .04$

Table 15

Correlation of Anticonformer Influence on Neutral Items with Questionnaire Ratings of Anticonformer

	Males N=16			Females N=15		
		Information			Information	
Scale	Opinion		Visual	Opinion		Visual
Intelligent–Unintelligent	.410	.090	.605*	.035	.085	-.243
Sincere–Insincere	.314	-.149	.656*	.201	.103	-.232
Dependable–Unreliable	.154	-.453+	.454+	.066	.185	-.332
Independent–Conforming	.247	.085	-.153	-.233	.130	-.028
Accurate–Inaccurate	.184	-.171	.386	.065	.137	-.164
Liberal–Conservative	.075	.155	.243	-.150	.160	.173
Likable–Unlikable	.282	-.388	.314	.137	.430	.344

* $p < .01$ + $p < .08$

Table 16

Correlation of Anticonformer Influence on Neutral Items with Questionnaire Ratings of the Group

Scale	Males N=16			Females N=15		
	Opinion	Information	Visual	Opinion	Information	Visual
Intelligent–Unintelligent	-.159	-.544°	-.012	-.561+	.224	.044
Sincere–Insincere	-.256	-.396*	-.073	-.352	-.041	.045
Dependable–Unreliable	-.309	-.312	-.264	-.076	-.248	.367
Independent–Conformity	-.435**	-.190	-.336	.061	-.294	.059
Accurate–Inaccurate	-.307	-.055	.145	-.222	.203	.072
Liberal–Conservative	-.327	-.378	-.170	.120	.333	-.157
Likable–Unlikable	-.068	-.524°°	-.040	-.096	-.201	.313

° $p < .03$ °° $p < .04$
** $p < .09$ + $p < .03$

IV
DISCUSSION: EXPERIMENT ONE

Results failed to confirm the hypothesis that a social supporter with task-related negative characteristics would be less effective in reducing conformity than a social supporter without those negative characteristics. Both veridical social support and anticonformity caused a reduction in amount of conformity, as compared to the unanimous group control. Failure to confirm the hypothesis was apparently not due to a failure of the anticonformity—veridical social support manipulation. The manipulation was intended to provide situations differing on pressure trials only in subjects' perception of their source of social support. Questionnaire data confirmed this result: while ratings of the anticonformer and veridical social supporter were significantly different, and in the desired direction on such task-related characteristics as intelligence, sincerity, dependability, and likability, the ratings of the rest of the group in both conditions did not differ significantly on a single dimension. In fact, pressure groups were rated uniformly across all three conditions run; there were no differences in the ratings of the groups in the Unanimous Group Control, Veridical Social Support, or Anticonformer conditions. Finally, analysis of the anticonformer condition for anticonformity indicated that true independence did occur.

Results of the present study are consistent with the conclusions of Malof and Lott (1962). It will be recalled that, using highly prejudiced whites and Negro social supporters, they concluded that negative characteristics of the social supporter were not relevant to the effectiveness of social support. The present study indicates that, even when these characteristics are highly task relevant, they do not appear to be a factor in the effectiveness of social support in reducing conformity. In addition, Malof and Lott used visual judgments only; the present study replicated their findings with opinion and information items as well as visual, increasing the generalizability of their findings.

These findings, however, apparently conflict with those of Allen and Levine (1968b), as reported above. Allen and Levine manipulated task-relevant characteristics of a social supporter by indicating to subjects that he couldn't see the items and found him to be significantly less effective than a normal social supporter. It is possible that their manipulation caused subjects to discount the dissent of the "half-blind" social supporter as largely accidental; if he could see he might not be dissenting. The meaning of his dissent, in other words, was not the same as in the present study. The "half-blind" social supporter couldn't help deviating; the anticonformer intended to dissent from the group—he was meaningfully rejecting the judgments of the pressure group. In a sense, then, Allen and Levine's disabled social supporter was not fully a member of the task group: he was not able, apparently, to participate meaningfully in the judgments the group was making. This may account for the apparent inconsistency between the two studies.

The problem of a satisfactory explanation of the present results remains: What other factors in this kind of conformity situation makes the task characteristics of the anticonformer irrelevant to his effectiveness in reducing conformity? Research on the generalization of social support suggests one possible explanation. The lack of generalization of social support within and across types of items points to the conclusion that subjects' responses in the types of situations typically employed in conformity research may be highly trial-specific—subjects may approach each trial independently of the previous ones. In this case, then, subjects would have approached each trial without considering the general characteristics of the social supporter, based on his past performance, at all. This explanation is not very satisfactory in view of the strong and accurate differentiation of the

GPO 813-253:-3

anticonformer from the veridical social supporter in the questionnaire data. It does not seem very likely that subjects would have paid enough attention to the anticonformer to accurately recall his performance, yet approached each trial without considering it.

Allen and Levine's (1968a) study on "extreme dissent" suggests a second possible explanation. In this study, it will be remembered, subjects were opposed on pressure trials by an incorrect majority and one person dissenting from that majority so as to be even more incorrect. This produced a reduction in conformity on visual items, the most objective type, but failed to reduce conformity on more subjective items such as opinion statements. Allen and Levine suggested that unanimity or consensus is more strongly expected on objective kinds of items than on others. The reduction in conformity yielded by the extreme dissenter occurs, therefore, because lack of consensus on such objective matters is an unusual event, indicating that the members of the group are unreliable perceivers of physical reality. The subject may then reject the group as an acceptable reference group and remain independent. In the present study, this lack of consensus occurred on all trials in the anticonformer condition, one third of which were visual items. This may have resulted in a general discrediting of the group (a generalization effect, at last?), decreasing its pressure on the subject. This explanation suffers, however, because the pressure groups were rated identically in the three conditions; if a general discrediting of the group had occurred, one would expect the group in the anticonformer condition to be rated lower.

A third possible explanation is suggested by the responses of subjects in interviews after the experiment. Subjects did not appear to take the anticonformer very seriously: he was "just fooling around," in the words of one subject. When asked why they agreed with him so frequently, since he was so unreliable, subjects simply stated that their judgments and his often coincided. They did not attribute any responsibility for their independence to his presence. Subjects in the Veridical Social Supporter condition seemed to take the entire situation a bit more seriously, many more subjects in this situation made statements like, "I always gave the answer I thought was right" when first asked how they answered. They seemed to be more aware that they had been independent than subjects in the Anticonformer condition. Subjects in the Veridical Social Supporter condition saw consensus on half the trials: the social supporter only dissented from the group in order to be correct. In the Anticonformer condition, in contrast, subjects observed the anticonformer constantly, almost whimsically, dissenting from the group. This may have resulted in greater emphasis on giving the correct answer in the Veridical Social Supporter condition than in the Anticonformer condition; subjects in the Anticonformer condition then would simply not be very concerned if their answers differed from the others.

Liking of the group has been shown to affect the ability of a group to exert pressure in a unanimous group influence situation; it seems strange that liking for the social supporter is unrelated to his ability to reduce compliance with group pressure, as occurred in the present study. This, however, is consistent with findings reported in the Allen and Levine (1968c) study on prior contact with the social supporter. The "contacted" social supporter, who was more effective in reducing conformity than a social supporter whom subjects had not met prior to the conformity situation, was liked significantly less than the non-contacted social supporter. Apparently, the unanimous group pressure situation is considerably different from that of social support: variables act in very different ways in the two situations. The unanimous opposition of the group creates great uncertainty in subjects about their judgment and understanding of the situation. Opposing an attractive group will only increase the anxiety of subjects—they might also be rejected by this attractive group as deviant. Independence, then, becomes a very high anxiety alternative to conformity, with liking for the group amplifying it. Under social support, however, much of the uncertainty about the subject's judgment is removed, he is not alone. Being less anxious, he may react much less intensely to any one variable in the situation and also be able to react to a wider range of variables. At lower levels of anxiety, then, his confidence in his own judgment may override the liking variable.

V
EXPERIMENT TWO

PROBLEM

The hypothesis that a social supporter with negative task-relevant characteristics would be less effective in reducing conformity than a social supporter without these negative characteristics was not confirmed by the first study. Difference between the Anticonformer and Veridical Social Supporter conditions was minimal; in fact, the anticonformer was slightly more effective in reducing conformity than the veridical social supporter, although it varied much more widely across subjects. In addition, it appears that the Anticonformer condition did indeed produce true independence; anticonformity was not evident to any significant degree in the subjects' responses on neutral items. Instead of reacting to the negatively valued social supporter (i.e., the anticonformer), furthermore, there was some evidence that male subjects tended to react more systematically to the equally negative pressure group.

There were a number of problems with the first study. First, the group and the anticonformer were equally inaccurate and negatively valued; the group as well as the anticonformer was incorrect on one-half of the trials. While this also occurred in the Normal Social Support condition in this study, perhaps the continual contrast with the anticonformer made subjects more aware of how frequently the group was wrong, thus decreasing its credibility as a source of influence below that of the group in the other two conditions. In addition, the anticonformer became useful to the subjects as social support at the outset; whatever subjects may have felt about the continuing evidence of his unreliability, they knew his one redeeming characteristic from the outset—he would be with them whenever they wished to deviate from the group.

Despite these problems, the results obtained in the first study are rather surprising. Although the group had little to recommend it, in terms of competence, neither did the anticonformer, and subjects accurately perceived this. The anticonformer was as often wrong as he was right, yet was still highly effective in reducing influence. In order to provide a stronger test of the hypothesis that negative task-related characteristics of a social supporter would reduce his effectiveness, a second study was undertaken. The procedure and experimental conditions were identical to the first study except for the following:

(1) Only 5% of the items were pressure items —3 out of 48. In the Anticonformer condition, this should help create an extreme condition of task incompetence for the anticonformer—95% of the time the anticonformer would be wrong. The group, on the other hand, should be established as highly credible and reliable, being correct 95% of the time.

(2) All pressure items occurred in the last 20 trials. This was done in order to assure that the anticonformer's incompetence, and the group's competence, was firmly established before the anticonformer offered as social support.

VI
METHOD: EXPERIMENT TWO

SUBJECTS

Subjects were 60 undergraduates, 30 males and 30 females, enrolled in an introductory psychology class at the University of Wisconsin. Data from 9 subjects were eliminated because of suspicion of the experimental deception, as assessed by postexperimental questionnaire and interview (3 males and 6 females). These subjects were distributed equally across the experimental conditions. Subjects were selected in the same manner as in the previous study.

APPARATUS

The apparatus was the same as in the previous study: a standard Crutchfield conformity apparatus was used.

DESIGN

The experiment was a three-factor analysis of variance design, with three experimental treatments, two levels of sex, and three types of items. As this study was a slightly modified replication of the first one, exactly the same conditions were used: Unanimous Group, where the group gave unanimously incorrect answers on pressure trials; Veridical Social Support, with the Number Four person correctly deviating from the group on the pressure trials; and Anticonformer, with the Number Four person dissenting on every trial—incorrectly on neutral trials, correctly on the three pressure trials.

STIMULI

Forty-eight slides were selected from the series developed and standardized by Tuddenham et al. (1956). Thirty-six of these were the ones used in the previous study. Sixteen of each type of item—opinion, information, and visual—were used.

Of the 48 items, only 3 were used as pressure items, with the majority of the simulated group answering at the 95th percentile of responses given by Tuddenham's standardization groups. One pressure item of each type was employed. The first 28 items were neutral or non-pressure items, with the majority of the group giving the modal answer and the anticonformer giving the incorrect or unpopular response. Pressure items were inserted on the 29th, 37th, and 46th trials: the 29th was a visual item, the 37th an information item, and the 46th an opinion item.

DEPENDENT MEASURES

Data consisted of a single conformity score for each subject for each of the three types of items. Data were computed as difference scores from subjects' previous answers to the same items on a questionnaire; in the case of visual items the mode of Tuddenham's standardization group was used.

Questionnaire data were identical to those of the previous study—rating of the Number Four person on seven dimensions and rating the rest of the group on the same dimensions.

VII

RESULTS: EXPERIMENT TWO

The summary table for the analysis of variance is given in Table 17. As may be seen, only one F, that for type of item, approached significance ($p < .10$); all others are less than unity. The mean conformity in each condition was as follows: Unanimous Group, .669; Social Supporter, .458; Anticonformer, .342. Departures of these means from zero can be explained by error.

Table 17

Summary Table for Analysis of Variance: Experiment Two

Source	Mean Square	df	F
A (Condition)	1.393	2	1
B (Sex)	.149	1	1
C (Type of Item)	5.895	2	2.553*
AB	1.206	2	1
AC	1.379	4	1
CB	.210	2	1
ABC	2.045	4	1
S(AB)	1.499	45	
S(AB)C	2.309	90	

* $p < .10$

The questionnaire data were considerably more stable than in the previous study. Variance within each dimension was homogeneous except in the case of the liberal–conservative dimension: there was more variance in the rating of the anticonformer on this dimension than for the Number Four person in the other two conditions ($p < .05$). The mean ratings of the Number Four person (Table 18) show that the anticonformer was rated significantly different from the veridical social supporter and the Number Four person in the unanaimous group on all seven dimensions. The anticonformer was seen as significantly less intelligent, sincere, dependable, accurate, conforming, conservative, and likable. The Number Four person in the Unanimous Group condition, and in the Veridical Social Support condition were not differentiated significantly from the rest of their group. In the Unanimous Group condition, the Number Four person never deviated from the group, and, as there were only three pressure trials among the 48 trials, the veridical social supporter only deviated from his group three times, so this finding is not surprising. Compared to the other members of his group, however, the anticonformer was strongly differentiated on all dimensions except that of likableness; here there was a tendency toward a difference but it did not reach the .05 level ($p < .10$). Ratings at the groups are given in Table 19.

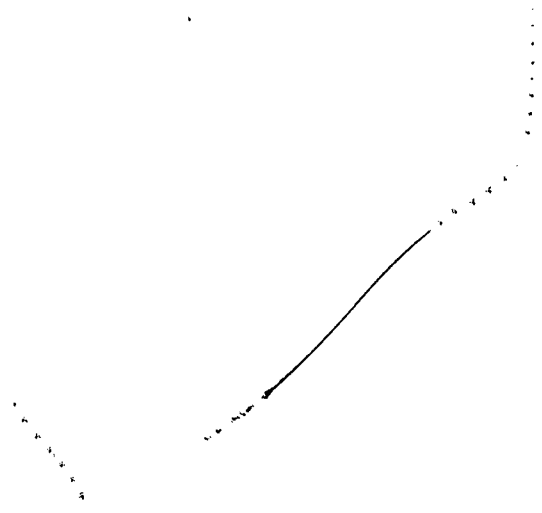


Table 18

Ratings of Person Number Four by Conditions

Scale	Anti-conformer	Veridical Social Supporter	Unanimous Group
Intelligent–Unintelligent	3.9*	7.9	7.7
Sincere–Insincere	2.0*	7.9	7.3
Dependable–Unreliable	3.7*	7.1	7.1
Independent–Conforming	8.6*	4.8	3.5
Accurate–Inaccurate	1.5*	7.5	6.5
Liberal–Conservative	6.8**	4.8	4.5
Likable–Unlikable	4.8*	7.5	7.2

* Differs from other two conditions $p < .10$
** Differs from other two conditions $p < .01$

Table 19

Rating of Group by Conditions

Scale	Anti-conformer	Veridical Social Supporter	Unanimous Group Control
Intelligent–Unintelligent	6.7	7.6	7.7
Sincere–Insincere	9.2*	7.5	7.3
Dependable–Unreliable	8.7	7.2	7.7
Independent–Conforming	4.8	4.3	3.4
Accurate–Inaccurate	8.6	6.8	6.5
Liberal–Conservative	5.1	4.8	4.6
Likable–Unlikable	6.5	7.4	6.9

* Differs from other two conditions $p < .10$

VIII
DISCUSSION: EXPERIMENT TWO

The failure of the second study was due to a number of factors. First of all, the series of items were too long. In the normal conformity experiment, the occurrence of pressure trials inserts some uncertainty into the situation and maintains interest. In this experiment there were no pressure items until after 28 trials. By this time many subjects became bored, and ignored the tediously reliable group. In subsequent interviews, many subjects reported being unaware that any pressure trials had occurred. A great many subjects complained that the experiment was dull, boring, and tedious. That is, subjects had been reinforced by the group for correct answers for so long and so consistently that the reinforcement lost its effect; subjects thus lost interest in the response of the group. In the Anticonformer condition many subjects just assumed that the anticonformer simply was not taking the experiment very seriously. In addition, it has been shown that the influence of a pressure group declines over time (Tuddenham, 1961). It is not clear that this was happening in this situation—the group did not become a pressure group until after many trials—but it is quite possible that a long series of neutral trials may also decrease a group's ability to exert pressure.

Another problem is the use of single scores. The usual practice is to take the algebraic mean of scores from a number of items and then to analyze on the basis of these mean conformity scores. This is what was done in the first study. Tuddenham (1961) showed that this method produced results essentially identical to analysis based on the raw scores, but he used a considerable number of each type of item. Single scores, however, are just too unstable—any effect that may have occurred is obscured by the large variance. The means of the conditions in this study were ordered the same as in the first study—unanimous group largest, veridical social support next, and anticonformer smallest—and were of a greater magnitude, but did not differ significantly from zero.

It is apparent from this study that manipulation of attributes of persons is not efficiently performed within the response situation. Manipulations exterior to the conditions of responding may be required when dealing with some weak variables.

REFERENCES

Allen, V. L. Situational factors in conformity. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. New York: Academic Press, 1965. Pp. 133–175.

Allen, V. L., & Boyanowsky, E. O. The generalization of independence produced by social support. Technical Report from the Wisconsin R & D Center for Cognitive Learning. The University of Wisconsin, in press.

Allen, V. L., and Levine, J. M. Social support, dissent, and conformity. Sociometry, 1968, 31, 138–149. (a)

Allen, V. L., and Levine, J. M. Social support and conformity: The role of independent assessment of reality, Technical Report from the Wisconsin R & D Center for Cognitive Learning, the University of Wisconsin, in press. Pp. 7, 9, 39.

Allen, V. L., and Levine, J. M. Social support and conformity: The effect of differentiation on the group and order of responding, Technical Report No. 72 from the Wisconsin R & D Center for Cognitive Learning, the University of Wisconsin, 1968 (c)

Asch, S. E. Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), Groups, Leadership and Men. Pittsburgh: Carnegie Press, 1951. Pp. 177–190.

Asch, S. E. Studies of independence and conformity: I. A minority of one against a unanimous majority. Psychological Monographs, 1956, 70 (9, Whole No. 516).

Crutchfield, R. S. Conformity and character. American Psychologist, 1955, 10, 191–198.

Festinger, L. An analysis of compliant behavior. In M. Sherif and M. O. Wilson (Eds.), Group Relations at the Crossroads. New York: Harper, 1953. Pp. 232–256.

Gerard, H. B. The anchorage of opinions in face-to-face groups. Human Relations, 1954, 7, 313–326.

Hardy, K. R. Determinants of conformity and attitude change. Journal of Abnormal and Social Psychology, 1957, 54, 289–294.

Helson, H., Blake, R., & Mouton, I. An experimental investigation of the effectiveness of the "big lie" in shifting attitudes. Journal of Social Psychology, 1958, 48, 51–60.

Hollander, E. P., & Willis, R. H. Some current issues in the psychology of conformity and nonconformity. Psychological Bulletin, 1967, 68, 62–76.

Jones, E. E. Ingratiation. A Social Psychological Analysis. New York: Appleton-Century-Crofts, 1964.

Malof, M., & Lott, A. J. Ethnocentrism and the acceptance of Negro social support in a group pressure situation. Journal of Abnormal and Social Psychology, 1962, 65, 254–258.

Tuddenham, R. D. The influence upon judgment of the apparent discrepancy between self and others. Journal of Social Psychology, 1961, 53, 69–79.

Tuddenham, R. D., Macbride, P., & Zahn, V. Studies in conformity and yielding. I. Development of Standard experimental series-1. Report No. 1, ONR Contr. NR 170-159, University of California, 1956.

Walker, E. L., & Heyns, R. W. An Anatomy for Conformity. Englewood Cliffs, New Jersey: Prentice-Hall, 1962.

GPO 813–253–2