Anonymous Versus Identifiable Individual Judgments Under Social Influence

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ANONYMOUS VERSUS IDENTIFIABLE INDIVIDUAL JUDGMENTS UNDER SOCIAL INFLUENCE

by

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A Thesis submitted to the Faculty of the School of Graduate Studies in partial fulfillment of the Degree of Master of Arts

Western Michigan University Kalamazoo, Michigan August 1966
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Charles J. Campolo
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INTRODUCTION

Refinement in the study of small groups has been accompanied by parallel improvement in theory and research dealing with group pressures. There have been many thorough and penetrating investigations of social pressure and conformity, but work is sparse concerning the factor of anonymity in conforming to a group norm. This paper seeks to ascertain the effect of anonymity of responses upon individual judgments under social influence.

The extent of induced conformity of individual judgments is generally recognized as a function of the object to be judged, the subject making the judgment, and the situation in which the subject finds himself (Hare, 1962). The first of these functions was found to be critical in determining the amount of pressure and rate of error in a lab setting. The more ambiguous the stimuli, the more errors produced in individual judgments (Luchins & Luchins, 1955; Blake, Nelson, & Mouton, 1957). Thus, studies which have utilized an ambiguous task cannot directly compare with those where the judgmental task is obvious and objective.
Sherif (1935; 1936) was one of the first investigators to demonstrate the importance of group influences upon individual judgment. His subjects were required to judge the apparent movement of a pinpoint of light, the autokinetic effect, first alone and then with two other subjects. Even though not instructed to agree, and in some cases warned against being influenced, subjects tended to shift estimates toward a common norm in the group situation.

Several ambiguous-task studies are more pertinent to the present paper. Mouton, Blake, and Olmstead (1956) designed a study to determine the relationship between frequency of yielding and the disclosure of personal identity. They found that identifiable subjects conform more to a group norm than anonymous subjects. The task involved recalling the number of metronome clicks.

In 1957 Argyle attempted to measure social pressure in public and private situations. Two subjects, one actually a confederate, sat at opposite ends of a table with a screen placed between them. They were asked to discuss a painting by passing notes and, as planned, the subject soon discovered a continuing disagreement. When the actual subject was asked to give his final opinion directly to the confederate, he
generally conformed more than in his written messages.

Probably the most basic and widely known work in group pressure employing unambiguous stimuli are the studies by Asch (1951; 1956). His basic experimental condition placed an individual in a face-to-face situation loaded with group pressure to accept a judgment clearly contrary to fact. The task entailed choosing one of three lines that was equal in length to a standard line. It was an easy task but after several neutral trials one individual was at odds with the entire group. Each member of the group, except the naive subject, was instructed to respond with wrong answers; thus, the naive subject was a minority of one against a unanimous majority. The experiment revealed that the majority effect caused $1/3$ of the minority's answers to be wrong with an overall 36.8% error rate.

An interesting finding by Asch (1955) indicated that a majority of three was generally as effective as a larger number. Luchins and Luchins (1955) confirmed this finding in another experiment.

Crutchfield (1955) introduced the use of "electrical stooges", a light signal system, in place of a physically present and responding majority. It was hard to compare this work to Asch's (1956) face-to-face situation because of differing sets of judgment
tasks. However, this study was important for it initiated the use of a light signal system with subject separation.

A study by Deutsch and Gerard (1955) made use of Asch's (1951; 1956) basic technique coupled with Crutchfield's (1955) light signal system. They confirmed their major hypothesis that group instruction would result in more errors than individual instruction. A second hypothesis was that social influence upon individual judgment would be lessened when the subject perceived that his answer could not be identified. To test this contention a comparison was made between a face-to-face group, identity known, to a separated anonymous group employing the light signal system. They found that the anonymous group scored significantly less errors.

Two facts should be noted about the Deutsch and Gerard (1955) study. First, due to an admitted methodological error, poor structuring and vague instructions, some subjects supposedly in the anonymous group indicated a belief that their responses could be identified. Still, the results were emphatic. Secondly, a face-to-face group was compared to a separated anonymous group. There is a wide difference in these
situations, as also observed by other writers (Levy, 1960), and this possibly accounts for the high significance in the experiment.

At the present time a review of the literature does not reveal the weight identifiability of a judgment has in determining amount of conformity to a clearly false group norm. This study seeks to compare the identity-known to the anonymous situation, but both operating under the separated, light system conditions. It is hypothesized that even under these subtle conditions, significantly fewer errors will be recorded in the anonymous situation. Fundamental to the procedure are the points outlined by Asch (1952, p. 461). The subject realizes that: a correct choice is possible, only one choice is correct, the issue is one of fact, others are attempting to make an objective choice, and that times he is unanimously opposed.
METHOD

Subjects

The subjects for this study were 24 females enrolled in undergraduate psychology classes at Western Michigan University. All volunteered to take part in an experiment investigating perception.

Confederates were paid females who served as the unanimous majority of three. They were recruited privately from the same classes several weeks in advance.

Apparatus

The set of standardized lines developed by Asch (1955) and also used by Deutsch and Gerard (1955) were employed. However, the cards were constructed, photographed, imprinted on 35 millimeter slides and projected to a large screen placed 15 feet before the subject's position. Eighteen trials were presented each session with six neutral interspersed in the presentation.

The 12 critical trials were actually three basic comparisons with increasing standard line lengths of 3, 5, and 8 inches. Comparison lines also increased
so that the differences were always at least $\frac{3}{4}$ inches but never more than $1 \frac{1}{3}$ inches (see appendix).

There were both over- and underestimations of the standard lines by the majority. Error was presented least in the first trials, $\frac{3}{4}$ inches, and increased progressively to $1 \frac{3}{4}$ inches in the last trials. At times the majority chose lines most like the standard line and in other instances the lines least like the standard.

Subjects were placed in separate booths and indicated judgments through a light signal system. Each booth contained a panel of three lights and three quiet switches corresponding to the three choice lines. Although wiring appeared to join each booth, the systems were not interconnecting but rather each one led to a master panel located in another room.

Procedure

Each subject was asked to perform the same task, choosing one of three lines that matched a standard line. The distance between the standard line and the choice lines was maintained at 40 inches.

Upon arriving for the experiment, subjects in the anonymous group (Group I) were asked to enter one of
the booths. Inside each booth at the base of the light panel, the subjects found a small card marked "3". When the signal was given for subjects 1, 2, and 4 to respond; programmed choices were activated on each panel by the assistant at the master panel. When subject three was to respond all subjects answered and as the responses flashed on the control panel the assistant recorded the choice of each subject. Subjects believed that their choices registered on all panels but the booths were not interconnected.

The directions for Group I explicitly stated that the designation of numbers was arbitrary and that it was impossible for the respondent to be identified.

The directions for Group I follows:

This is a task involving the discrimination of lengths of lines. Before you is a screen with one line on the left and three lines of differing length on the right. They numbered 1, 2, and 3 in order. One of the three lines at the right is equal to the line at the left. You will decide in each case which is the equal line. You will indicate your judgments by flipping the switch on your light panel that corresponds to the number of the line you have chosen, to the "on" position. Be sure to return your switch to the "off" position when the next person is called upon to answer. It takes approximately 10 seconds to record a response so leave it on at least that long. There will be 18 such comparisons in all.

*Partly adapted from Asch (1956)
As the number of comparisons is few and the group small, I will call upon each of you in turn to indicate your judgments by means of your light panel. Now, at the base of your panel you will find a card indicating a random number. When this number is called, it is an indication for you to respond. These numbers are not related to your position.

You will be able to observe other choices by means of the light system. The recording is such that neither you nor the experimenter will be able to tell to whom a particular judgment belongs.

Please be as accurate as possible. Are there any questions?

The identity-known condition (Group II) entailed a physically present, but still separated majority. The confederates, along with the critical subjects, were publicly assigned a booth. Naive subjects were seated, inconspicuously, in the third booth. Once in the booths the confederates had no further task except for an occasional pre-arranged question. The responses of 1, 2, and 4 were again programmed from the control panel. The instructions for Group II follows: (the first parts are identical to Group I and are not repeated here)

As the number of comparisons is few and the group small, I will call upon each of you in turn by name to indicate your judgments by means of your light panel. Your judgments will be signalled directly to the rest of the group by the lights on their panels. Thus, each person will know who is responding.

Please be as accurate as possible. Are there any questions?
After each session of 18 trials, each subject was interviewed separately to determine validity of response and to note qualitative results. The interview, although structured, allowed for an initial vagueness so as to give the subject wide freedom to present immediate reactions. At the termination of the interview the subject was asked not to discuss the experiment for at least several weeks and was reassured as to her perceptual accuracy.
RESULTS

The number of socially induced errors for each subject was computed for both Group I and Group II. In Group I there were 156 total trials with 13 errors. The error rate is equal to 8.33%. Group II committed 18 errors in a total of 132 trials for a 13.64% error rate. There is 5.13% difference in error rate between the experimental conditions with 10% more subjects erring in Group II. Total percentage of error for each critical trial in each group was calculated and plotted in figure 1.

The mean number of errors for Group I is 1.67 as compared to 2.26 for Group II. Previously mentioned research had reported fewer errors in the anonymous situation. A one-tailed t test between means did not support the hypothesis that substantially more errors would occur in the identity-known group (Group II) as compared to the anonymous group (Group I); \( t = 1.12 \) with 22 df, \( p > .15 \).

Of thirty original subjects who performed under both variables, six were eliminated because of strong suspicion or actual belief that the experiment was rigged. This was a 20% elimination rate. When data
from these subjects are included in the statistical test the results remain insignificant.

Table 1 indicates the distribution of errors in Group I and II. The results hint at the observed qualitative differences between Group I and Group II. It was apparent that in the anonymous condition subjects appeared more relaxed and at ease than those in Group II. During the interview Group II demonstrated a somewhat strained and concerned behavior toward their part in the experiment. Subjects in Group I exhibited a definitely interested, but matter of fact attitude toward the proceedings.
Figure 1. Percent of wrong responses per critical trial for Group I and Group II.
Table 1

Frequency Distribution of Errors in Identity and Anonymous Groups

<table>
<thead>
<tr>
<th>Number of Errors</th>
<th>Anonymous Group N=13</th>
<th>Identity Group N=11</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
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</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
DISCUSSION

It has been the contention of this study that research which purportedly measured the effect of anonymity of judgments utilizing an unambiguous task, had not truly isolated the phenomenon for adequate measurement. Many times research efforts were only incidently concerned with anonymous judgments and usually investigated this factor through secondary hypothesis making.

The major implications of this paper substantiate Levy's (1960) findings. There is a basic difference between a face-to-face and a separated condition in studies of group pressure and social influence. The separated condition is not as effective in producing conformity. Further, the results obtained here indicate that the differences between a face-to-face, identity-known group, and a separated, anonymous group are mainly attributable to face-to-face interaction. When both the identity-known and the anonymous groups are compared under separated conditions, the differences between them considerably diminish.

The point should be noted that identity, in its common meaning, was not a major issue here. That is, by identity-known or identification there was no
concern with just naming an individual. More important was the clear association of an individual with her response. Thus, in the identity situation the subject became publicly responsible for her judgment.

Deutsch and Gerard's (1955) study involved an anonymous group with individuals assigned an objective judgmental task under separated light-signal conditions. They admitted that instructions concerning anonymity were vague and only implicit, and that if this were corrected even less error would be recorded. They found mean error in individual judgment to be 2.27; and, with corrected instructions this paper reports a mean error rate of 1.00.

The hypothesis of this investigation was not substantiated statistically. Subjects in the anonymous group (Group I) did not err significantly less than those in the identity-known group (Group II). Three auxiliary evaluations show a definite but subtle inequality between the variables.

First, Table 1 and figure 1 indicate a differential effect upon individual judgment in Group I and II. Figure 1 displays the wide individual differences among subjects and also reveals the slightly more pressure to conform in the identity-known condition (Group II). Secondly, 10% more subjects yielded in
Group II. Thirdly, qualitative observations such as facial expressions and gestures suggest stronger pressure to conform among subjects in Group II.

The findings of this study hint that the effect of anonymity of response under social influence is not so strong as indicated by past research. Literature in this area remains sparse and continued work is required to adequately confirm, or possibly even reject, present findings.
This study sought to ascertain the effect of anonymity of response upon individual judgment under social influence. It was contended that research which purportedly measured the effect of anonymity of judgment utilizing an unambiguous task, had not truly isolated the phenomenon for adequate measurement. It was hypothesized that even under conditions of subject separation and light signal communication, anonymity of judgment would still result in less conforming responses.

This hypothesis was not substantiated by the results of the investigation. It appears that the differences between a face-to-face, identity-known group, and a separated anonymous group are mainly attributable to the face-to-face interaction. When both the identity-known and the anonymous groups are compared under the same conditions, the factor of anonymity, although important, is not as great as indicated by past research.
REFERENCES


Asch, S.E. Studies of independence and conformity: A minority of one against a unanimous majority. Psych. Monogr., 1956, 70 (9), No. 416.


APPENDIX

Basic Standard and Comparison Lines
| I   |       |       |       |       |
|     | 3"    | 3 3/4" | 4 1/4" | 3"   |
| II  |       |       |       |       |
|     | 5"    | 5"    | 4"    | 6 1/2" |
| III |       |       |       |       |
|     | 8"    | 6 1/4" | 8"    | 6 3/4" |