

GROUP PRESSURE AND ACTION AGAINST A PERSON¹

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A distinction is made between action conformity and signal conformity; the former refers to group-induced behavior that has more than an informational impact on the environment. A study of action conformity is described in which the effects of group pressure are measured by comparing the amount of electric shock administered by a naive S to a person, under experimental and control conditions. In the experimental condition the S performs in the midst of 2 confederates who call for increasingly more powerful shocks against a victim. The naive S has control over the level of shock and can hold down the punishment or yield to group influence. In the course of 30 critical trials the mean shock levels rise in response to the confederates' pressure. The structure of the experimental situation is examined by a comparison with Asch's study of verbal compliance.

A great many variations of a paradigm provided by Asch (1951) show that there is an intelligible relationship between several features of the social environment and the degree to which a person will rely on others for his public judgments. Because it possesses merits of simplicity, clarity, and reconstructs in the laboratory powerful and socially relevant psychological processes, this paradigm has gained widespread acceptance as a basic technique of research on influence processes.

One feature that has been kept constant through the variations on Asch's work is that verbal judgment has been retained as the end product and basic index of conformity. More generally, a *signal* offered by the subject as representing his judgment has been the focus of study. Most often the signal has taken the form of a verbal pronouncement (Asch, 1956; Milgram, 1961), though mechanical devices which the subject uses to signal his judgment have also been employed (Crutchfield, 1955; Tuddenham & MacBride, 1959).

A distinction can be made between *signal conformity* and *action conformity* in that the immediate consequence of the former is purely informational; the subject states his

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opinion or reports on his perception of some feature of the environment. Action conformity, on the other hand, produces an immediate effect or alteration in the milieu that goes beyond a contribution of information. It refers to the elicitation of a *deed* by group forces, the induction of an act that is more than communicative in its effect. The act may be directed toward the well being of another person (e.g., a man is induced by group pressure to share bread with a beggar) or it may be oriented toward nonsocial parts of the environment (a delinquent is induced by gang pressure to throw a rock at a shop window).

There is little reason to assume a priori that observations made with regard to verbal conformity are automatically applicable to action. A person may pay lip service to the norms of a group and then be quite unwilling to carry out the kinds of behavior the group norms imply. Furthermore, an individual may accept and even promulgate a group standard at the verbal level, and yet find himself *unable* to translate the belief into deeds. Here we refer not to the distinction between overt compliance and private acceptance, but of the relationship between a genuinely accepted belief and its transformation into behavior.

The main point of the present experiment is to see if a person will perform acts under group pressure that he would not have performed in the absence of social inducement. There are many particular forms of action

that can be inserted into a general group-pressure experimental design. One could study sorting IBM cards, or making paper cutouts, or eating crackers. Convenience makes them attractive, and in several valuable experiments investigators have used these tasks to good advantage (Frank, 1944; French, Morrison, & Levinger, 1960; Raven & French, 1958). But eventually social psychology must come to grips with significant behavior contents, contents that are of interest in their own right and are not simply trivial substitutes for psychologically meaningful forms of behavior. Guided by this consideration, a relatively potent form of action was selected for shaping by group pressure. We asked: Can a group induce a person to deliver punishment of increasing severity to a protesting individual? Whereas Asch and others have shown in what manner group pressure can cause a person to pronounce judgments that contradict his thinking, the present study examines whether group pressure causes a person to engage in acts at variance with his uninfluenced behavior.

METHOD

The details of subject recruitment, subject composition, experimenter's introductory patter, apparatus, and learning task have been described elsewhere (Milgram, 1963) and need only be sketched here.

Subjects consisted of 80 male adults, ranging in age from 20 to 50 years, and distributed in equal numbers, ages, and occupational statuses in the experimental and control conditions.

Procedure for Experimental Condition

General. The basic experimental situation is one in which a team of three persons (including two confederates) tests a fourth person on a paired-associate learning task. Whenever the fourth party makes a mistake the team punishes him with an electric shock. The two confederates suggest increasingly higher shock levels; the experimenter observes in what degree the third member of the team (a naive subject) goes along with or resists the confederates' pressure to increase the voltage levels.

Details. Four adults arrive at a campus laboratory to participate in a study of memory and learning. On arrival each subject is paid \$4.50. The experimenter explains that a variety of roles must be performed in the experiment, and that to make role assignments fairly, subjects are to draw printed slips from a hat, each slip designating a particular experimental role. Actually, three of the

adults are confederates, and only one naive subject is tested each hour. The drawing is rigged so that the naive subject is always assigned the position, Teacher 3, and Confederate B is always the Learner. The role assignments, which the subjects read from the drawn slips, are as follows:

<u>Role title</u>	<u>Participant</u>	<u>Task</u>
Teacher 1	Confederate C	First, you will read word pairs to the learner. Then you will read a stimulus word along with four possible answers.
Teacher 2	Confederate A	When the learner gives his answer, your task is to indicate whether he is correct or incorrect. When he has erred you will provide him with the correct answer.
Teacher 3	Naive subject	Whenever the learner gives an incorrect answer, you will administer punishment by activating a shock generator.
Learner	Confederate B	Your task will be to learn a list of word pairs read to you by Teacher 1.

The experimenter explains that the purpose of the experiment is to study the effects of punishment on memory in a context of "collective teaching." Confederate B is taken to an adjoining room and in full view of the others is strapped into an electric-chair apparatus. The experimenter explains the nature of the learning task to the Learner and, passing over a remark made by the Learner concerning a mild heart condition, takes the three teachers to the main experimental room.

They are seated before an imposing shock generator whose essential feature is a horizontal line of 30 lever switches, labeled 15-450 volts, in 15-volt increments. Verbal designations are spread along the line of switches reading: Slight Shock, Moderate Shock, Strong Shock, Very Strong Shock, Intense Shock, Extreme Intensity Shock, and Danger: Severe Shock.

The experimenter restates that the Learner is to be tested on a paired-associate learning task (see Milgram, 1963, for details). Teachers are told that the Learner must be shocked each time he errs in the learning task. The experimenter explains how the level of shock is to be determined:

Now the amount of punishment given on any trial is decided by the teachers themselves. Each of you will suggest a shock level. And the shock actually administered will be the lowest level suggested by any of the three teachers. In order to keep the experiment running smoothly, give suggested levels in this order: Teacher 1, submit your bid first; Teacher 2, submit your bid second; and Teacher 3, submit your bid third.

Remember you can stick to one level or raise or lower your level as you desire, but on any trial, the punishment administered will be the lowest level suggested by any teacher on that trial.

Thus the naive subject finds himself in a position in which, on any trial, he can effectively control the maximum shock administered to the Learner, e.g., the ground rules of the experiment would permit him to hold the shock level down to 15 volts throughout the laboratory session. On the other hand he may go along with or move in the direction of the group choice. It is the naive subject who actually administers the shock by depressing the appropriate lever on the generator (i.e., he always emerges from the rigged drawing as Teacher 3).

The three teachers each have their roles spelled out for them again, and there remains only the task of giving each a sample shock from the generator before the experiment gets under way.

Behavior of Teachers 1 and 2 (Confederates). According to a prearranged schedule the two confederates at the shock generator call for a one-step increase in the shock level each time the Learner errs. On the first error they both call for Shock Level 1 (15 volts); on the twentieth error they both call for Shock Level 20 (300 volts), and so forth. Their constant unanimity is rendered credible by having Teacher 1 play a somewhat domineering, and Teacher 2 a somewhat submissive type. The confederates, played by adult actors, appear indifferent to the complaints of the Learner.

Behavior of the Learner. According to a prearranged schedule the Learner responds to the learning task by providing answers in the proportion of three wrong answers to each correct one. There are a total of 40 trials, 30 of them being critical (occasions when the Learner answers incorrectly).

The Learner's responses are not limited to providing answers. As the shocks administered to him become stronger, he grunts, protests, and demands to be let out of the experiment. Each complaint of the Learner is, in fact, prerecorded on magnetic tape, and is coordinated to a specific shock level. The protests and expressions of discomfort follow spontaneously the administration of an electric shock.

The Learner indicates no discomfort until the 75-volt shock is administered, at which time there is a slight grunt in response to the punishment. Similar reactions follow the 90- and 105-volt shocks, and at 120 volts the Learner shouts to the experimenter that the shocks are becoming painful. Painful groans are heard on the administration of the 135-volt shock, and at 150 volts the Learner cries out that he wants to be released from the experiment, complaining of a heart disturbance. Cries of this type continue with generally rising intensity, so that at 180 volts, the Learner cries out "I can't stand the pain," and by 285 volts his response to the shock is clearly an agonized scream. At 300 volts the victim shouts in desperation that

he will no longer provide answers to the memory test, and so forth through 450 volts. In other words, increases in shock level are met by increasingly severe reactions from the person being punished.

It is to be remembered that this is merely a *potential* series of responses. If a shock no higher than the 75-volt level is administered, only a grunt is heard. As a point of procedure, protests were not repeated at the same shock level, e.g., after the first grunt was used in response to Shock Level 75, no further complaints were introduced until and if a higher shock level were used.

Experimental measures. The principal experimental measure, therefore, is the level of shock administered by the subject on each of the 30 critical trials. The shock levels were automatically recorded by an Esterline-Angus event recorder wired directly into the shock generator, providing us with a permanent record of each subject's performance.

Postexperimental session. An interview and debriefing session were held immediately after each subject's performance. A variety of background measures was obtained, as well as qualitative reactions to the experimental situation.

Control Condition

The purpose of the control condition is to determine the level of shock the naive subject administers to the Learner in the absence of group influence. One naive subject and one confederate (the Learner) perform in each session. The procedure is identical to that in the experimental condition, except that the tasks of Confederates A and C are collapsed into one role handled by the naive subject. References to collective teaching are omitted.

The naive subject is instructed to administer a shock each time the Learner errs, and the naive subject is told that as teacher he is free to select any shock level on any of the trials. In all other respects the control and experimental procedures are identical.

RESULTS

Figure 1 shows the mean shock levels for each critical trial in the experimental and control conditions. It also shows a diagonal representing the stooge-group's suggested shock level on each critical trial. The degree to which the experimental function moves away from the control level and toward the stooge-group diagonal represents the effects of group influence. Inspection indicates that the confederates substantially influenced the level of shock administered to the Learner. The results will now be considered in detail.

In the experimental condition the standard deviation of shock levels rose regularly from trial to trial, and roughly in proportion to the rising mean shock level. However, in the

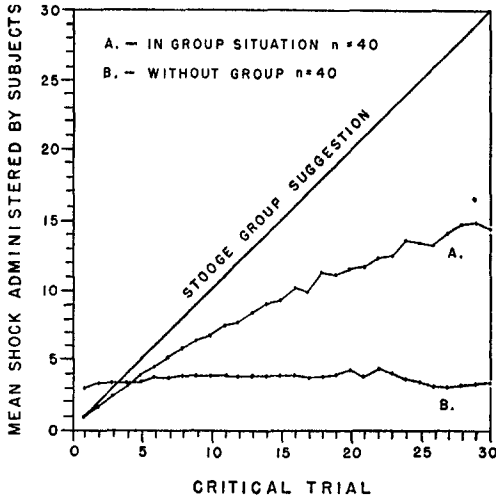


FIG. 1. Mean shock levels in experimental and control conditions over 30 critical trials.

control condition the standard deviation did not vary systematically with the mean through the 30 trials. Representative mean shock levels and standard deviations for the two conditions are shown in Table 1. Hartley's test for homogeneity of variance confirmed that the variances in the two conditions were significantly different. Therefore a reciprocal-of-the-square root transformation was performed before an analysis of variance was carried out.

As summarized in Table 2, the analysis of variance showed that the overall mean shock level in the experimental condition was significantly higher than that in the control condition ($p < .001$). This is less interesting, however, than the differing slopes in the two conditions, which show the group effects through the course of the experimental ses-

TABLE 1
REPRESENTATIVE MEAN SHOCK LEVELS AND STANDARD DEVIATIONS IN THE EXPERIMENTAL AND CONTROL CONDITIONS

Trial	Experimental condition		Control condition	
	Mean shock level	SD	Mean shock level	SD
5	4.03	1.19	3.35	2.39
10	6.78	2.63	3.48	3.03
15	9.20	4.28	3.68	3.58
20	11.45	6.32	4.13	4.90
25	13.55	8.40	3.55	3.85
30	14.13	9.59	3.38	1.89

sion.⁸ The analysis of variance test for trend confirmed that the slopes for the two conditions differed significantly ($p < .001$).

Examination of the standard deviations in the experimental condition shows that there are large individual differences in response to group pressure, some subjects following the group closely, others resisting effectively. Subjects were ranked according to their total deviation from the confederates' shock choices. On the thirtieth critical trial the most conforming quartile had a mean shock level of 27.6, while the mean shock level of the least conforming quartile was 4.8. Back-

⁸ On the first four trials the control group has a higher mean shock than the experimental group; this is an artifact due to the provision that in the experimental condition the shock actually administered and recorded was the lowest suggested by any member of the group; when the subject called for a shock level higher than that suggested by the confederates, it was not reflected in the data. (This situation arose only during the first few critical trials.) By the fifth critical trial the group pressure begins to show its effect in elevating the mean shock level of the naive subjects.

TABLE 2
ANALYSIS OF VARIANCE OF SHOCK LEVELS ADMINISTERED IN THE EXPERIMENTAL AND CONTROL CONDITIONS

Source	df	SS	MS	F
Total between individuals	79	966,947.1	12,239.8	
Between experimental conditions	1	237,339.4	237,339.4	25.37*
Between individuals	78	729,607.7	9,353.9	
Within individuals	2,320	391,813.5	168.9	
Between trials	29	157,361.7	5,426.3	96.04*
Trials × Experimental conditions (Trend)	29	106,575.4	3,675.0	65.04*
Remainder	2,262	127,876.4	56.5	

* $p < .001$.

ground characteristics of the experimental subjects were noted: age, marital status, occupation, military experience, political preference, religious affiliation, birth-order information, and educational history. Less educated subjects (high school degree or less) tended to yield more than those who possess a college degree ($\chi^2_{df=1} = 2.85$, $p < .10$). Roman Catholic subjects tended to yield more than Protestant subjects ($\chi^2_{df=1} = 2.96$, $p < .10$). No other background variable measured in the study was associated with amount of yielding, though the number of subjects employed was too small for definite conclusions.

TABLE 3

MAXIMUM SHOCK LEVELS ADMINISTERED IN EXPERIMENTAL AND CONTROL CONDITIONS

Verbal designation and voltage indication	Number of subjects for whom this was maximum shock	
	Experimental	Control
Slight Shock		
15	1	3
30	2	6
45	0	7
60	0	7
Moderate Shock		
75	1	5
90	0	4
105	1	1
120	1	1
Strong Shock		
135	2	3
150	5	1
165	2	0
180	0	0
Very Strong Shock		
195	1	0
210	2	0
225	2	0
240	1	0
Intense Shock		
255	2	0
270	0	0
285	1	0
300	1	0
Extreme Intensity Shock		
315	2	0
330	0	0
345	1	0
360	2	0
Danger: Severe Shock		
375	0	1
390	0	0
405	1	0
420	2	0
XXX		
435	0	0
450	7	1

The shock data may also be examined in terms of the *maximum* shock administered by subjects in the experimental and control conditions, i.e., the highest single shock administered by a subject throughout the 30 critical trials. The information is presented in Table 3. Only 2 control subjects administered shocks beyond the tenth voltage level (at this point the Learner makes his first truly vehement protest), while 27 experimental subjects went beyond this point. A median test showed that the maximum shocks administered by experimental subjects were higher than those administered by control subjects ($\chi^2_{df=1} = 39.2$, $p < .001$).

The main effect, then, is that in the experimental condition subjects were substantially influenced by group pressure. When viewed in terms of the mean shock level over the 30 critical trials, as in Figure 1, the experimental function appears as a vector more or less bisecting the angle formed by the confederates' diagonal and control slopes. Thus one might be tempted to say that the subject's action in the experimental situation had two major sources: it was partly determined by the level the subject would have chosen in the control condition, and partly by the confederates' choice. Neither one nor the other entirely dominates the average behavior of subjects in the experimental condition. There are very great individual differences in regard to the more dominant force.

DISCUSSION

The substantive contribution of the present study lies in the demonstration that group influence can shape behavior in a domain that might have been thought highly resistant to such effects. Subjects are induced by the group to inflict pain on another person at a level that goes well beyond levels chosen in the absence of social pressure. Hurting a man is an action that for most people carries considerable psychological significance; it is closely tied to questions of conscience and ethical judgment. It might have been thought that the protests of the victim and inner prohibitions against hurting others would have operated effectively to curtail the subject's compliance. While the experiment yields wide variation in performance, a substantial

number of subjects submitted readily to pressure applied to them by the confederates.

The significance of yielding in Asch's situation is sometimes questioned because the discriminative task is not an issue of self-evident importance for many subjects (Bronowski).⁴ The criticism is not easily extended to the present study. Here the subject does not merely feign agreement with a group on a perceptual task of undefined importance; and he is unable to dismiss his action by relegating it to the status of a trivial gesture, for a person's suffering and discomfort are at stake.

The behavior observed here occurred within the framework of a laboratory study presided over by an experimenter. In some degree his authority stands behind the group. In his initial instructions the experimenter clearly legitimized the use of any shock level on the console. Insofar as he does not object to the shocks administered in the course of the experiment, his assent is implied. Thus, even though the effects of group pressure have been clearly established by a comparison of the experimental and control conditions, the effects occurred within the context of authoritative sanction. This point becomes critical in any attempt to assess the relative effectiveness of *conformity* versus *obedience* as means of inducing contravalent behavior (Milgram, 1963). If the experimenter had not approved the use of all shock levels on the generator, and if he had departed from the laboratory at an early stage, thus eliminating any sign of authoritative assent during the course of the experiment, would the group have had as powerful an effect on the naive subject?

There are many points of difference between Asch's investigation and the procedure of the present study that can only be touched upon here.

1. While in Asch's study the *adequate* response is anchored to an external stimulus event, in the present study we are dealing with an internal, unbound standard.

2. A mispoken judgment can, in principle, be withdrawn, but here we are dealing with action that has an immediate and unalterable

consequence. Its irreversibility stems not from constraints extrinsic to the action, but from the content of the action itself: once the Learner is shocked, he cannot be unshocked.

3. In the present experiment, despite the several sources of opinion, there can be but a single shock level on each trial. There is, therefore, a competition for outcome that was not present in the Asch situation.

4. While in the Asch study the focus of pressure is directed toward the subject's judgment, with distortion of public response but an intermediary stage of influence, here the focus of pressure is directed toward performance of action itself. Asch's yielding subject may secretly harbor the true judgment; but when the performance of an action becomes the object of social pressure, there is no comparable recourse to a covert form. The subject who performed the act demanded by the group has yielded exhaustively.

5. In the Asch situation a yielding subject engages in a covert violation of his obligations to the experimenter. He has agreed to report to the experimenter what he sees, and insofar as he goes along with the group, he breaks this agreement. In contrast, in the present experiment the yielding subject acts within the terms of the "subject-experimenter contract." In going along with the two confederates the subject may violate his own inner standards, and the rights of the Learner, but his relationship with the experimenter remains intact at both the manifest and private levels. Subjects in the two experiments are faced with different patterns of social pressure and violate different relationships through social submission.

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⁴ J. Bronowski, personal communication, January 10, 1962.

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