

## OBEDIENCE TO AUTHORITY WITH AN AUTHENTIC VICTIM

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Milgram (1963) reported that a large proportion of *Ss* obeyed commands from an *E* to deliver seemingly dangerous shocks to a "victim." Naive *Ss* were led to believe that they were participating in an experiment on learning which purportedly required delivery of shock to a second *S*. The *E* instructed *S* to throw in succession each of 30 switches until a 450-v scale limit had been reached or until they refused to go on. Whether the experiments were conducted at a prestigious university or in a contrived, off-campus "research establishment" (Milgram, 1965), *Ss* frequently obeyed the commands all the way to the "450-v level." This occurred in many cases despite the protestations of the learner-victim, and his expressed unwillingness to participate further in the experiment.

Milgram's findings run contrary to expectation. When either nonparticipant *Ss* (Milgram, 1963) or a group of psychiatrists (Milgram, 1965) were asked to estimate how much shock would be delivered in such a situation, estimates were far below the figures actually obtained.

In the light of this, it is natural that attempts would be made to reinterpret the Milgram findings in a manner more consistent with expectation. One such reinterpretation focuses on a possible lack of plausibility in Milgram's paradigm (Orne & Holland, 1968). Orne and Holland argue that *Ss* were given no solid rationale for shocking the learner-victim, and that they may merely have been playing the role indicated by the "demand characteristics" of the situation. This reinterpretation is buttressed by findings obtained when *Ss* were directly asked to role play within a Milgram-type obedience setting (O'Leary, Willis, & Tomich, 1969). Results were virtually identical to those obtained by Milgram, even to the signs of nervousness. Similar findings were obtained when *Ss* were told that shock values were only 10% of those indicated on the scale, or when they were informed that there was a "gimmick" which they should attempt to discover (Holland, 1967).

It was with misgivings about the validity of Milgram's obedience paradigm that the present attempt to elicit obedience in a more authentic situation was undertaken. In this experiment the learner-victim was *actually* given graded shocks. A nonhuman *S*—a cute, fluffy puppy—was substituted for the human learner-victim of Milgram's paradigm. In addition, shocks were amperage-limited and capable of creating responses such as running, howling, and yelping, without, however, doing the *S* any serious harm. When the shock generator switches reading 15-75 v. were thrown, *S* actually received 400 v. at .2 ma. At readings from 75-300 v., actual shock was 600 v. at .8 ma. From the 300 - 450 v. readings *S* received 800 v. at 1 ma. The first of the three actual voltage levels produced foot flexion and occasional barks, the second level produced running and vocalization, and the final level resulted in continuous barking and howling.

A further refinement on studies done previously was the use of equal numbers of male and female *Ss*. As far as is known, no investigations of this type published prior to the present one have included female *Ss*. It would not be unreasonable, in view of the nurturance typical of females,

to suppose that women would be less willing than men to inflict harm on a cute puppy. Further, common observation suggests that women might be better able than men to confront or manipulate authority figures such as the commanding *E*. Conversely, the submissiveness of the female role might lead to greater compliance.

### METHOD

#### *Subjects and Procedure*

*Ss* were 13 male and 13 female students enrolled in an introductory psychology class who participated in order to fulfill a course requirement. *Ss* volunteered for the experiment without being informed of its nature, although they were told, prior to volunteering, by both the *E* and the course instructor that the experiment was "important." Approximately 3/4 of the 70 students in the class volunteered for this and a related obedience experiment; thus, sampling bias, although it cannot be discounted entirely, must not have been great.

*Ss* were led to believe that they were participating in an experiment involving the measure of critical fusion frequency (CFF) in puppies. The concept of CFF was explained to them, and they were read a textbook description of *E* bias and its insidious effects on research outcomes (Sheridan, 1971). Their purported role was to prevent *E* bias by standing in for the *E*. This entailed delivering shock to the puppy as it supposedly learned a discrimination between flickering and steady lights. The puppy was placed, with the help of *S*, in a shuttle box which had at either end a signal light and a shock grid floor. *Ss* then went to an adjacent room containing an elaborate relay rack similar to that used by Milgram. The shock apparatus was placed just in front of a one-way mirror which permitted *S* (but not *E*) full view of the puppy with only a very dim view of the "signal lights." The *E* stood to one side in the same room as *S*. The signal lights actually did not provide a shock-correlated signal for the puppy. Thus, the puppy's problem was insoluble. The *Ss* were informed that, by the mere act of showing up for the experiment they had fulfilled their course credit requirement for participation in experiments. Thus, course credit was not contingent on shocking the puppy. They were then told to take the puppy through a series of "discrimination training" trials on the insoluble problem. The *S* was instructed to electrify the grids after each error (defined as lack of correspondence between the puppy's right-left position and that indicated on a program sheet) made by the puppy, increasing the shock level 15 v. for each error. As in the Milgram (1965) experiments, protests on the part of *Ss* were met with a standard sequence of four graded verbal prods ranging from "Please continue," to "You must go on, there is no other choice!" If *S* refused to continue after the four prods, the session was terminated and *S* was debriefed. Otherwise, debriefing occurred after the final switch had been thrown. Debriefing consisted of an explanation of the true nature of the experiment, reassur-

ances concerning the safety of the puppy, handling of the puppy, and an intensive interview concerning the S's interpretation of the events in which he had just participated.

## RESULTS

Levels of obedience obtained from male Ss were quite close to those obtained by Milgram (1965) under comparable conditions of feedback from the victim. With combined auditory and visual feedback from the victim, 40% of Milgram's Ss obeyed to the end of the shock scale whereas 54% of the male Ss in the present study were comparably compliant. The difference between Milgram's results and the present ones were not statistically reliable ( $\chi^2 = 3.39$ ,  $df = 1$ ,  $p > .05$ ). The Milgram findings are, therefore, replicable when the situation is highly plausible and the victim authentic.

Without exception, female Ss complied with instructions to shock the puppy all the way to the end of the scale. The difference between obedience levels of male and female Ss was statistically reliable (Yates'  $\chi^2 = 5.41$ ,  $df = 1$ ,  $p < .02$ ).

Ss typically gave many indications of distress while giving shocks to the puppy. These included such things as gesturally coaxing the puppy to escape the shock, pacing from foot to foot, puffing, and even weeping. The duration the switch remained in the shock position was measured automatically throughout the experiment. These durations declined as a function of voltage level ( $F = 12.03$ ,  $df = 2/02$ ,  $df = 2/38$ ,  $p < .05$ ) although sex differences on latency measures were not statistically reliable. This shortening of duration could have been caused by acquisition of switch-throwing skills, but the simplicity of the motor requirements makes it seem more likely that Ss were attempting to minimize discomfort to the puppy without confronting the E. These attempts were fruitless because the actual duration of administered shock was controlled independently by an electronic timer.

The experiment provided two different ways to disobey: Ss could either confront authority and refuse to go on, or they could attempt to deceive the E, telling him that the puppy had learned the insoluble problem. Half of the disobedient Ss took the latter course. Similar styles of disobedience were reported by Milgram (1965) when commands were delivered to Ss via telephone. Ss said they were complying with instructions to increase shocks, but sometimes failed to do so. Their willingness to distort the results of a "scientific experiment" suggests that, for them, the authority of the E outweighs the prestige of science as a factor controlling their behavior.

The findings are in consonance with the view that Milgram's findings may correctly be taken at face value. Ss

are willing to follow repugnant commands, even when it is clear that the victim is truly receiving shocks. Milgram's findings have proven remarkably robust in the face of a variety of procedural variations, and the impact of his findings cannot be mitigated by appeal to the notion that Ss are merely "playing games with" and "outguessing" the E.

Females were not expected to be more willing than males to shock a cute puppy. In order to determine whether this was due to peculiarities of the expectancies, 45 Ss, both male and female, were asked, in a classroom setting, to indicate how much shock they would deliver if they had been Ss in the experiment. Their estimates, made before learning the actual results, were in consonance with the early expectations. Only three Ss (two male and one female) indicated that they would go beyond 300 v. When females were asked to predict how far the "average woman" would go in shocking the puppy, 86% of them predicted that the "average woman" would shock no higher than 150 v., and no one predicted that the "average woman" would go as far as 450 v.

After completion of this study, it was learned that M. Goldman (personal communication) and his students had conducted an unpublished investigation of the Milgram type using adolescent females as Ss. His results were virtually identical to those obtained with females in the present investigation. However, Milgram (personal communication) used female Ss and obtained results similar to those in his studies of male obedience. It is possible that age is a critical variable here, since Milgram invariably used more mature Ss, whereas in both this study and Goldman's, female Ss were all in their teens. However, it would be pointless to speculate on the basis of these sex differences without further research to clarify the conditions under which they occur.

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