

# Social facilitation of attitude change\*

ROBERT FRANK WEISS, FRANKLIN G. MILLER,  
CHARLES J. LANGAN†, and JOE SHELBY CECIL††  
University of Oklahoma, Norman, Okla. 73069

Classically conditioned attitude strength was greater for Ss who were conditioned and tested in the presence of an evaluative audience than for Ss who were conditioned and tested in privacy ( $N = 192$ ,  $p < .05$ ). Results were interpreted in terms of neo-Hullian theories of audience-induced drive and persuasive communication.

Recent studies have tended to support the application of instrumental conditioning, classical conditioning, and selective learning models to attitude change through persuasive communication (Weiss, 1968). The present paper further explores the possibilities of a classical conditioning model in which the opinion to be learned is the conclusion of a syllogism. Ss are exposed to a persuasive communication which includes the premises of the syllogism, but not the conclusion (McGuire, 1960), and S is left to draw the implied conclusion for himself (Hovland & Mandell, 1952). Figure 1 shows corresponding paradigms for classical conditioning and attitude learning. Research based on this classical conditioning model requires persuasive communications which incorporate two elements: (1) the opinion-eliciting argument (syllogism premises); and (2) the cue statement, two (neutral) words which immediately precede the opinion-eliciting argument and will later constitute part of the test used to measure attitude acquisition. The cue statement precedes the opinion-eliciting argument, so that an S listening to (or reading) the communication will first hear the cue statement, followed by the opinion-eliciting argument (syllogism premises), and then draw the conclusion implied by the argument. This sequence of events may be regarded as analogous to the sequence: CS, UCS, UR. The cue statement is the CS, and the opinion-eliciting argument is the UCS, which elicits the implied opinion—the UR. Through repetition of the sequence, the implied opinion (UR) becomes conditioned to the cue statement (CS) and thus becomes a conditioned opinion (CR) as shown in Fig. 1.

Following the logic of this paradigm further, the number of repetitions of this sequence is analogous to the number of conditioning trials. According to the drive theory of social facilitation (Zajonc, 1965; also Cottrell, 1968; Weiss & Miller, in press), the presence of an evaluative audience serves to arouse drive (D) so that an S who is observed by such an audience will have a higher drive level than he would if he performed alone. Research and theory in classical conditioning (e.g., Spence, 1956; Spence & Spence, 1966) indicate that CR strength is an increasing function of trials and drive and that these two variables combine multiplicatively to determine CR strength. Theoretically, then, attitude strength should be an increasing function of persuasion trials and audience-induced drive, and these two variables should combine multiplicatively to determine conditioned attitude strength.

## METHOD

The design was a 2 by 2 factorial with 48 male undergraduate Ss in each of the four cells ( $N = 192$ ). There were two levels of number of persuasion trials (one vs three readings of the persuasive communications), and two levels of audience-induced drive (observed vs alone).

Under the impression that he was participating in a study of "personality, speech patterns, and decision-making," each experimental S read three persuasive communications and three buffers into an "electronic speech analyzer." One-trial Ss read each communication once and three-trial Ss read each communication three times. There were two reading

sessions within the 30- to 50-min experimental period, each followed immediately by attitude measurement. The first reading session covered two persuasive communications and two buffers, and the second, one persuasive and one buffer.

During both persuasion and opinion measurement, the high-drive Ss performed in the presence of an evaluative audience and the low-drive Ss performed alone. The audience consisted of two male undergraduates who observed the S and evaluated the S's personality and speech characteristics on printed rating sheets. The S heard the Os being instructed to observe and evaluate him, and the Os were seated flanking S so that S could see them observe and evaluate him but could not tell whether the evaluations were favorable or unfavorable. In order to maintain drive throughout the experiment, the O did not complete the final series of evaluations until after the S had completed his tasks. A recurrent procedural problem in social facilitation research is the presence of the E, who must give the necessary instructions, etc., but whose presence can dilute the purity of the alone condition. In all conditions, the E was present only long enough to hand out the reading passages and the evaluation forms and then retired to a separate control room with a blank wall between him and the S. Those instructions which could not effectively be given in writing were given over an intercom between the two rooms. In the alone condition, S was told that the intercom would be off except when he pressed a button to activate it, and whenever S took his finger off the button, an "intercom on" light went off. Alone Ss contacted the E when required to do so by the written instructions or whenever they wanted the instructions confirmed or clarified. In the audience condition, S was told that the E would be listening to him over the intercom, the "intercom on" light was continuously lit, and the E thus was explicitly part of the audience manipulation.

In order to study "conditioning" rather than "habit reversal," the persuasive communications were

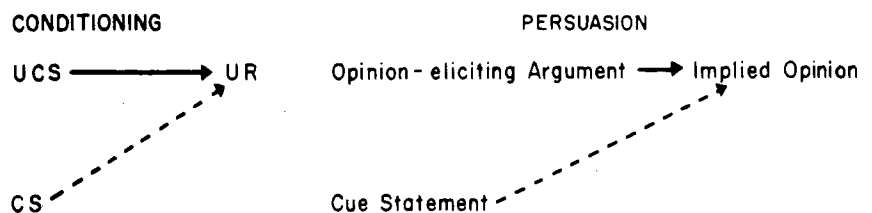


Fig. 1. Corresponding paradigms for a classical conditioning trial and a persuasion trial.

\*Research supported by NIMH Grant MH-12402. We thank Dr. Nicholas B. Cottrell for valuable expert advice on the methodology of social facilitation research.

†Now at the State University of New York at Buffalo, Buffalo, New York 14214.

††Now at the University of Southern California, Los Angeles, Calif. 90007.

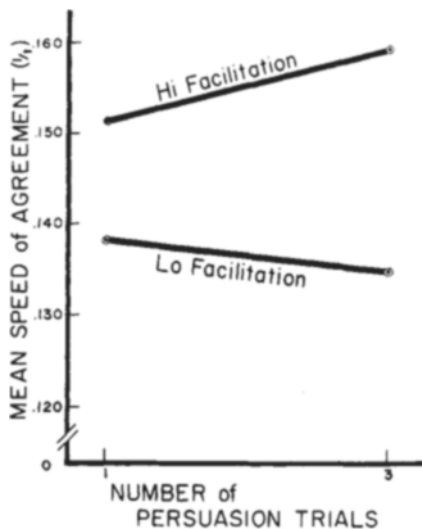


Fig. 2. Speed (1/latency) of agreement as a function of number of persuasion trials at two levels of audience-induced drive.

directed at fictitious opinion topics, on which 95%-98% of a sample of 100 similar undergraduates had no initial opinion (e.g., Bayzin was considerate of his troops). The Bayzin communication concerned a (fictitious) 13th century Turkish general, and the premises were: Great generals are considerate of their troops, and Bayzin was a great general. The cue statement was the two words immediately preceding the argument (e.g., Asia Minor).

The attitude measuring apparatus assessed each S's probability and latency of agreement with the opinion after S had been exposed to persuasive communication. The cue statement and opinion were projected on a screen (preceded by 11-13 buffers), and S signified his agreement (if he agreed) by moving a lever toward the opinion. When an opinion was

projected on the screen, an electric timer automatically began to measure latency of agreement to 1/100 sec. When the lever was moved ¼ in., a photobeam silently stopped the timer (speed = 1/latency). The timing equipment was not visible to the Ss, who did not know they were being timed. If an S did not respond within 40 sec, his speed of agreement with that opinion was considered to be zero. The Ss who did not agree did not move the lever. The mean of the three speed scores was computed for each S.

#### RESULTS

Figure 2 shows mean speed of agreement as a function of number of persuasion trials at two levels of audience-induced drive. The figure appears to confirm the predictions that attitude strength should be an increasing function of drive and persuasion trials (at least at high drive), with a multiplicative interaction between drive and trials. However, only the drive effect was significant ( $F = 3.87$ ,  $df = 1/188$ ,  $p < .05$ ).

#### DISCUSSION

The absence of a significant trials effect does not permit a meaningful evaluation of the Drive by Trials interaction. This is all the more puzzling because previous experiments have found trials effects in both classical (Weiss, in press; Weiss, Chalupa, Gorman, & Goodman, 1968) and instrumental (Weiss, 1967, 1969; Weiss & Pasamanick, 1964) attitude conditioning, and the replicability of trials effects had therefore been thought to be demonstrated. The experiment did succeed in showing, however, that attitudes can be energized by audience-induced drive.

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