

Social Facilitation and Impression Formation

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The nondirectional effect of the drive theory of social facilitation (Zajonc, 1965) was investigated in an impression formation task. Participants who were either alone or in a group were exposed to a positive or a negative experimenter and then rated that experimenter on a series of bipolar adjectives. The mere presence of others intensified the experimenter ratings such that positive experimenters were rated more positively and negative experimenters were rated more negatively in the group condition. These findings support the hypothesis that the mere presence of others influences impression formation and that this effect is moderated by cues in the social context.

What impact, if any, do groups have on people's thoughts, feelings, and behaviors? Considerable research has revealed effects for *social facilitation*, defined as improvements in performance produced by the mere presence of others, whether these others are an audience or co-actors (Allport, 1920; Triplett, 1898). For example, Allport (1920) asked participants to write down as many word associations as they could think of for different words. Using the same participants in an alone versus with-others condition, he found that 93% of the participants could generate more alternative meanings in the presence of others. Similar effects emerged with animal studies involving feeding behavior and mazes; animals performed these tasks faster in the presence of other animals than when alone (Chen, 1937; Gates & Allee, 1933; Ross & Ross, 1949). Although most research reveals facilitating effects for the presence of others on measures of performance, some research has revealed that the presence of others can also lead to decreased performance, especially on unfamiliar or complex tasks (e.g., Pessin, 1933).

Zajonc offered a solution to this seeming inconsistency with the Drive Theory of Social Facilitation (Zajonc, 1965). According to drive theory, the presence of others has a

nondirectional effect on people's behavior. The nondirectional component implies that the presence of others does not influence what type of behavior people engage in (e.g., performance enhancing or debilitating behavior), only that people's motivation, or drive, to behave in a particular way will be enhanced in the presence of others. Situational cues direct what people do, and social facilitation intensifies this response. Social facilitation may therefore lead to an increase or decrease in performance, depending on what the dominant response is in that social context. Research has been generally supportive of drive theory predictions. Individuals are more likely to emit dominant responses in the presence of others than when alone, and performance is either enhanced or impaired depending on the match of the dominant response to the performance being measured (see Geen, 1989; Geen & Gange, 1977, for reviews).

Despite a long history in social psychology, social facilitation research has generally limited its focus to consideration of the effects of others on performance (e.g., Laughlin & Jaccard, 1975). However, Zajonc's (1965) drive theory is agnostic about what kind of behavior the mere presence of others might affect. A small number of studies have examined behaviors other than performance. Of these, most have examined the presence of others on aggressive behavior. Although these studies have found both inhibiting (e.g., Baron, 1971; Scheier, Fenigstein, & Buss, 1974) and enhancing

(e.g., Skitka, Piatt, Ketterson, & Searight, 1993) effects, none addressed the mere presence of others on aggression. Rather, the studies examined the presence of others in terms of the effects of evaluation apprehension or increased self-awareness on aggressive responding.

A few studies have examined the role of social facilitation on making judgments. Allport (1924) had participants make physical judgments by rating the pleasantness of odors or the heaviness of weights, while alone or in the presence of others. The effect of social facilitation on cognitive judgments was tested by Gabrenya and Arkin (1979) in a study exploring the use of the representativeness and causality heuristics by field dependent or independent individuals when completing private or public tasks. However, like the aforementioned aggression studies, neither of these studies addressed mere presence per se; both examined the effects of evaluation apprehension.

The goal of this study is to extend this prior work in two important ways. First, this study will examine whether just the mere presence of others influences how people think and make judgments. Specifically, this study will test social facilitation predictions using an impression formation task. Second, we will also examine the extent to which social facilitation effects are nondirectional. We predict that people who form an impression in the mere presence of others will form more negative or more positive impressions (depending on the social cues available) than people who form impressions of others in isolation.

METHOD

Participants

Sixty-nine students enrolled in introductory level psychology classes participated in the study in partial fulfillment of course requirements.

Overview of the Design

The study consisted of a 2 (experimenter behavior: positive or negative) \times 2 (mere presence condition: group or alone) completely randomized between-subjects design. In the positive experimenter condition ($N = 34$), participants were greeted politely, and the female experimenter employed a variety of positive nonverbal cues such as smiling, positive eye contact, pleasant tone of voice, and greeted participants by shaking hands. In the negative experimenter condition ($N = 35$), the female experimenter acted negatively and employed a variety of negative nonverbal cues such as scowling, poor eye contact, and impatient foot tapping. Care was taken that the negative experimenter did not act too negatively and arouse suspicion. Mere presence was manipulated by having the participants complete the experiment in an alone condition, or in the company of two confederates.

Dependent measures consisted of 15 traits rated on scales ranging from 1 to 7 (scale endpoint labels: *friendly-unfriendly*, *assaultive-nonassaultive*, *ill-humored-good-humored*, *aggressive-nonaggressive*, *rejecting-accepting*, *revengeful-nonrevengeful*, *cruel-kind*, *angry-not angry*, *fair-unfair*, *sympathetic-unsympathetic*, *honest-deceitful*, *reasonable-unreasonable*, *social-unsocial*, *adjusted-maladjusted*, *intelligent-unintelligent*). These items were scaled (reverse scoring appropriate items) to yield an average impression of the experimenter that ranged from positive to negative, with Cronbach's $\alpha = .92$.

Procedure

Participants were greeted either positively or negatively, depending on experimenter behavior condition, by an experimenter who explained that the study consisted of a phrase completion task, and then some questionnaires. In the group condition, the participant was greeted in a cubicle that connected to a larger room. The participant was led to believe that the other participants in the study (who were actually two female confederates) were being greeted in adjoining cubicles. After the greeting, the participant was led to the larger room, as were the two confederates. Once in the room, the participants were told not to interact with each other, and were seated in such a way to prevent eye contact or interaction of any kind.

Participants were provided with the cover story that the goal of the study was to compare college versus noncollege students' responses on a phrase completion task. This task involved having participants write down whatever came to mind in response to a variety of leading phrases such as "My best friend is" "My future goals are" "At home I like to" After completing the phrase completion task, participants were asked to complete a questionnaire evaluating the experimenter. Participants were told the questionnaire was a part of the general departmental evaluation of experimenters. To further ensure a sense of confidentiality, the experimenter left the room during the evaluation, and the participants were instructed to place their evaluations in individual envelopes and to place these envelopes in a box that already contained numerous other envelopes. To support the departmental evaluation cover story, the box in which the participants were to place the questionnaires was located in the department office and not in the lab in which the experiment was conducted. The participants were instructed to retrieve the experimenter only after their forms were completed and placed in the box. On being retrieved, the experimenter fully debriefed the participants.

RESULTS

It was hypothesized that mere presence would have bidirectional effects, depending on the tone set by the experi-

menter (positive or negative). Specifically, the mere presence of others was predicted to enhance perceptions of the experimenter: In the positive experimenter condition, the ratings of the experimenter would be more positive, whereas in the negative experimenter condition, the ratings of the experimenter would be more negative, relative to participants who made their ratings in an alone condition. Of the 69 participants, only 9 were men. As these 9 men were distributed approximately equally across the conditions and there was no theoretical reason to expect gender differences, gender was not included as a variable in the statistical analyses.

A main effect for experimenter behavior on participants' impressions supported the effectiveness of the experimenter's behavior in creating the intended perceptual effects. The positive experimenter was evaluated as more friendly, supportive, and so on, on the composite impression index ($M = 1.68$, $SD = .81$) than was the negative experimenter ($M = 2.99$, $SD = 1.13$), $F(1, 65) = 32.24$, $p < .001$. A large effect size was found for this difference, $d = 1.38$.

In support of drive theory, this main effect was qualified by whether participants evaluated the experimenter alone or in the mere presence of others, $F(1, 65) = 8.23$, $p < .01$ (see Figure 1). Analysis of the simple effects of mere presence at the different levels of experimenter condition supported the hypotheses: Participants in the positive experimenter condition who rated the experimenter in the presence of others had more positive impressions of the experimenter ($M = 1.43$, $SD = .64$) than did participants who made the same ratings, but alone ($M = 1.98$, $SD = .89$), $F(1, 32) = 4.33$, $p < .05$. Moreover, participants in the negative experimenter condition who rated the experimenter in the presence of others had more negative impressions of the experimenter ($M = 3.35$, $SD = 1.10$) than participants who made the same ratings, but alone ($M = 2.61$, $SD = 1.02$), $F(1, 33) = 4.18$, $p < .05$. The effect sizes for both of these comparisons were moderately large and of approximately equal magnitude ($d = .71$ for the positive conditions; $d = .70$ for the negative conditions).

In sum, results supported the basic premise that mere presence can enhance the impressions people form of an experimenter in both positive and negative directions.

DISCUSSION

The goal of this experiment was to test whether Zajonc's (1965) drive theory of social facilitation also predicts how the mere presence of others influences social judgment. According to drive theory, the mere presence of others increases nonspecific arousal, that then intensifies behavioral responses. What behavioral response occurs, however, is determined by cues in the social context. Although the theory was designed to predict behavior, there is reason to believe that the same nonspecific arousal could affect social judgment. Specifically, we predicted that people would make

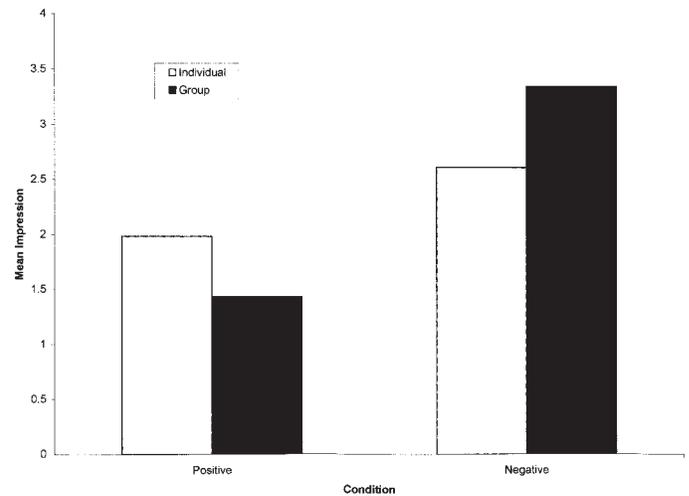


FIGURE 1 Evaluation of the experimenter as a function of the presence of others and experimenter behavior.

more extreme judgments of others when impressions are formed in the mere presence of others than when they are formed in isolation. In addition, drive theory predicts that these impressions would also depend on the social cues available to perceivers. When cues are negative, judgments made in the presence of others are likely to be more negative, whereas when cues are positive, judgments made in the presence of others are likely to be more positive, relative to impressions formed by people in isolation.

Results supported the hypothesis that the mere presence of others influences impression formation, and that these effects were moderated by the valence of cues available in the social context. Participants in the mere presence condition who were asked to rate their impressions of a positive experimenter rated that experimenter more positively than participants who were asked to provide their impressions alone. Similarly, participants who rated their impressions of a negative experimenter in the presence of others rated that experimenter more negatively than those who were asked to provide their impressions alone. These results are particularly impressive given that the subtle positive and negative experimenter manipulations yielded moderately large effect sizes (employing Cohen, 1988, designations).

In sum, this study provides evidence for mere presence effects in the social judgment domain. People form more extreme impressions of a target when they make judgments in the mere presence of others. This pattern is quite consistent with the drive theory of social facilitation.

Moreover, these results point to the need to consider how we do much of our research. A considerable amount of social psychological research is conducted running participants in noninteractive small to large group settings with little con-

sideration of the effect that the mere presence of others might have on the phenomena under study. At a minimum, some thought should be given to whether the mere presence of others introduces a confounding variable for any given study.

Finally, the discovery that mere presence affects person perception suggests that mere presence may influence a variety of human judgment processes. For example, does the mere presence of others attenuate various cognitive biases? Are we more likely to make the fundamental attribution error when thinking about the cause of some event in the presence of others than when we are thinking about the event alone? These will be interesting avenues for future research.

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