



INDIVIDUAL PRESENTATION PROPOSAL
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1. Title of presentation: Social facilitation: Role of spatial behavior, supervisor salience, and gender

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4. Accommodation request: None

5. Preferred mode of presentation: Poster Session

6. Special equipment will be used in presentation: None

7. Summary to be posted on the APA Web site: No

8. Division to submit this proposal: 34 - Population and Environment

Social facilitation: Role of spatial behavior, supervisor salience, and gender

Social facilitation research has typically explored the effect of presence on performance. Recent studies have challenged the way we define presence and have extended these findings to include electronic presence (Aiello & Kolb, 1995). The present study seeks to further challenge we operationally define presence by suggesting that presence be viewed not as a dichotomous variable (as has been typically done in previous research), but rather as a continuous variable differing on the salience of the presence.

In one of social psychology's first experiments, Triplett (1898) made a fascinating discovery. Triplett noticed that bicycle racers seemed to perform much faster when faced with racing other opponents against the clock as compared to when racing alone. This observation turned into one of psychology's first experimental studies. Contradictory studies, however, began to cast doubt on social facilitation theory. The effects were not always facilitative; some studies found that social settings led to performance impairment.

Social facilitation breathed new life when Zajonc (1965) proposed a parsimonious explanation that could account for both performance gains and losses. The mere presence of others enhances the emission of dominant responses by increasing the individual's level of general drive. If the appropriate responses are dominant, then the presence of others will improve performance. If the appropriate responses are not dominant (subordinate), then performance will be impaired. Subsequent theories focused on evaluation apprehension (Cottrell, 1972), distraction-conflict (Baron, 1986), in addition to many other alternative explanations.

Since Zajonc's (1965) seminal paper, hundreds of studies have been published examining the effects of presence on performance. However, presence is usually defined as a dichotomous variable; either the participant is alone or there are others in the room. The present study systematically varied the physical distance of the experimenter to test whether closer physical proximity would lead to increased effects.

Several studies have shown that interpersonal distance may play an important role in predicting stress, discomfort, and physiological arousal (Aiello, 1977; Aiello, 1987; Aiello et al., 1977). Furthermore, the gender of the participant may play a critical role in moderating these effects (Aiello & Thompson, 1980). The present study compared participant's performance under varying degrees of physical presence and tested to see whether increasing the salience of presence by varying the interpersonal distance differentially impacted participant's performance.

Method

Participants. Participants were 207 undergraduate students recruited from introductory psychology classes for partial fulfillment of a course requirement. Participants were primarily first and second year undergraduate students at a large northeastern university.

Design. Participants were randomly assigned to one of 8 conditions. Each condition varied the salience of experimenter presence. The conditions were 1) high salience (the experimenter was seated adjacent), 2) high moderate- the experimenter was seated behind the participant and capable of monitoring performance, 3) high moderate- the experimenter was seated across and capable of monitoring performance 4) moderate- the experimenter was seated at a 90 degree angle, 5) low moderate- the experimenter was in an adjacent (connected) room 6) electronic high –the experimenter was out of the room, but participants were told they were being monitored through their computer terminal and were given an icon reminder 7) electronic low- the experimenter was

out of the room and participants were told they were being monitored through their computer terminal with no reminder and 8) no presence (control condition)- the experimenter was out of the room with no monitoring.

Procedure. After entering the lab, participants were told they would be completing 2 word-pair association tasks in which they would be given a limited amount of time to study a list of word-pairs. They would then be presented with the first word from the pair and asked to recall the second. The noncompetitive word-pair list (simple task), given first, contained word pairs that were semantically related. The competitive list (complex task) contained some pairs that were semantically related and others that were not. Participants each completed recall 30 problems per word-pair list. Performance was measured by the number of items answered correctly. After completing the tasks, participants completed several post-task questionnaire items designed to measure stress, satisfaction, mood, effort, and other relevant variables. Participants completed the word-pair tasks under one of the presence conditions outlined above.

Results and Discussion

Analyses indicated that physical proximity differentially impacted the participants. Closer physical proximity appears to produce the strongest effects with declining effects as distance increases. For example, participants who performed with the experimenter directly adjacent (high salience) felt the climate was more stressful, $F(7, 233)= 2.2, p< .05$, were less calm, $F(7, 233)= 3.71, p<.01$, were more distracted, $F(7, 233)= 2.5, p< .05$, and felt judged, $F(7, 233)= 2.1, p< .05$, on the simple task and were the most stressed, $F(7, 233)= 3.1, p< .01$, distracted, $F(7, 233)= 2.3, p< .05$, uncomfortable, $F(7, 231)= 3.0, p< .01$, and affected by the experimenter's location $F(7, 231)= 5.6, p< .01$) on the complex task. Also, analyses revealed that presence salience impacted only complex task performance. However, this effect was moderated by the gender combination of the experimenter and participant, $F(7, 176)= 2.5, p<.05$. It appears that salience impacted complex-task performance only when the experimenter and participant were of different gender. A male experimenter directly adjacent to a female participant and a female experimenter directly adjacent to a male participant led to the greatest performance impairment on the complex task. These findings have important implications for future social facilitation research. It may be important to identify the physical proximity of the observer in interpreting presence effects.

Table 1

Condition	Climate stressful		Effected Performance		Distracted by supervisor		Judged Comfort
Distracted							
Directly Adjacent	4.59	3.21	5.24	3.72	4.00	2.76	
Behind	5.20	2.13	5.67	2.70	4.47	2.43	
Across	5.43	2.82	6.03	2.67	4.80	2.07	
90 degrees	5.14	2.53	5.75	3.21	4.75	2.42	
Next room	5.81	1.88	6.53	2.72	4.81	1.53	
Hi monitoring	5.41	2.38	6.00	2.38	5.15	1.93	
Low monitoring	5.80	2.65	6.22	3.25	5.48	1.77	
Alone	5.41	2.62	5.78	3.47	4.60	2.18	

Note. Values represent means per condition. Items were rated on 7-point scales. Participants who performed with the experimenter directly adjacent yielded the most extreme scores.

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