

This Week's Citation Classic

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Orne M T. On the social psychology of the psychological experiment: with particular reference to demand characteristics and their implications. *Amer. Psychol.* 17:776-83, 1962.

An effort was made to analyze the psychological experiment as a unique social form of interaction, emphasizing that the subject is not merely a passive responder to stimuli but an active participant whose perception of the total situation may profoundly affect his behavior. [The SCI® indicates that this paper has been cited over 740 times since 1962.]

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"To systematically study man's behavior, it is necessary to carefully control the circumstances, which is often possible only in a psychological experiment. Yet it seemed to me that the experiment itself changes the circumstances of observation. I felt it would be necessary to examine the effects of being in an experiment in order to make inference from those circumstances to a larger life situation. It seemed naive to assume that human subjects respond only to those aspects of the experiment that we define as stimuli. Rather, they, as well as the experimenter, realized that there was a larger purpose in an experiment and that their perception of this larger purpose would affect how they perceived what was happening in the microcosm of the experiment and could dramatically alter their response. In a number of demonstrations it was possible to show how powerful the experimental setting is and how different some observations obtained in that setting would be from those obtained in another setting.

"This paper reported work done at the Massachusetts Mental Health Center, Boston. It appeared at a time when there was an increasing dissatisfaction with the naive behavioral approach. The observations affected all research with human subjects, and I proposed procedures for assessing the extent to which being in an experiment is likely to affect a subject's behavior. This explains why the paper became widely cited. It also helped focus attention on the subject as an active, thinking individual rather than as a passive responder. To the extent that this and other

papers resulted in a concern with these issues, their purpose was served. Unfortunately, this work has also been used as the basis for criticizing all experimental research in psychology and as an argument to abandon such efforts. I cannot share this view since I would not have been concerned about analyzing the nature of the psychological experiment if it were not an essential tool to elucidate psychological processes.

"It appears to me that the difficulties with psychological experiments can best be conceptualized by assuming that in all studies there are two experiments: the one which the investigator intends and the one which the subject perceives. The ecological validity of the inferences drawn from any given experiment will largely depend upon how closely the experiment the subject perceives approximates the one the experimenter intends. We cannot assume the nature of the relationship, and our methodology must concern itself with assessing it empirically.

"Though I remain convinced that progress in science depends upon the merit of our hypotheses and the validity of our methodology, I also believe that methodological progress is most likely to follow from a concern with doing vigorous research on substantive issues. The 1962 paper evolved from the day-to-day efforts to systematically study the nature of hypnosis and assure that findings would generalize beyond the laboratory. We continue to innovate in our methodological approach, not as an abstract effort, but because it appears necessary to do so in order to obtain answers to specific substantive questions.

"The study of man will never be an easy matter. It will inevitably be complicated by the fact that our subjects, like ourselves, have purposes and motives, overt and hidden, that extend beyond the experimental situation but affect what they do in the experimental context. Such difficulties should not, however, cause us either to abandon experimental research nor to close our eyes to the problem. Rather, we need to recognize that a meaningful body of knowledge about how man thinks, acts, and experiences can only be created by developing techniques which permit systematic observations despite the fact that our subjects are, in varying degrees, inevitably active participants in the enterprise being studied."