

# This Week's Citation Classic

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Rosenthal R. *Experimenter effects in behavioral research*.  
New York, NY: Appleton-Century-Crofts, 1966. 464 p.

**Within the context of a general discussion of the unintended effects of scientists on the results of their research, this work reported the growing evidence that the hypothesis of the behavioral scientist could come to serve as self-fulfilling prophecy, by means of subtle processes of communication between the experimenter and the human or animal research subject. [The *Science Citation Index*<sup>®</sup> (*SCI*<sup>®</sup>) and the *Social Sciences Citation Index*<sup>™</sup> (*SSCI*<sup>™</sup>) indicate that this book has been cited over 740 times since 1966.]**

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"This work was published 10 years after I had unnecessarily, playfully, and compulsively reanalyzed statistically the data of my UCLA doctoral dissertation on the Freudian defense mechanism of projection. That reanalysis suggested strongly that my hypothesis or expectation about how the subjects should respond had somehow been communicated to the subjects so that my hypothesis might have become a self-fulfilling prophecy.

"The next few years were given over in part to a series of experiments showing that, far more often than could be expected if the null hypothesis were true, experimenters obtained results from their subjects that were in line with the hypotheses or expectations that we had randomly assigned to the experimenters we were studying. These 'experimenter expectancy effects' were obtained in studies of human and animal learning, in studies of personality and ability, in studies of reaction time and psychophysical judgments, and in studies of person perception and everyday life situations.

"The first few studies of this type met with a rather chilly reception, and unpublished manuscripts dominated both my desk and my curriculum vitae. In due course, after I moved

from the University of North Dakota to Harvard University, those manuscripts were published.

"It's hard to be sure why this work is cited frequently but in most cases it seems due to three lines of implication; the first is methodological, the other two are substantive. The methodological implications of the work have to do with a variety of controls for the expectancy effects of the experimenter including increasing the number of experiments, observing the behavior of experimenters, analyzing experimenters for order effects and for computational errors, developing selection and training procedures, developing a new profession of data collector, maintaining blind and minimal contact, and employing expectancy control groups.<sup>1,2</sup>

"A second line of implication has to do with the everyday life occurrence of interpersonal expectation effects. Thus, not only do experimenters' expectations for their subjects' behavior actually affect that behavior, but teachers' expectations for the intellectual performance of their pupils can also come to serve as self-fulfilling prophecies.<sup>3</sup>

"Finally, the third line of implication has to do with the subtle processes of communications by which experimenters, teachers, and employers unintentionally communicate their expectations to their subjects, pupils, and employees. This line of implication is fascinating to me. For the last few years my colleagues (Judith A. Hall, M. Robin DiMatteo, Miron Zuckerman, Bella DePaulo, Dane Archer, and Peter L. Rogers) and I have been studying the related problem of measuring sensitivity to nonverbal communication in various channels such as tone of voice, body movements, and facial expression. The next few years may well be devoted to studying how a receiver's ability to decode nonverbal cues in various channels coupled with a sender's ability to encode nonverbal cues in various channels leads to certain kinds of interpersonal outcomes when experimenters, teachers, doctors, and employers interact with subjects, pupils, patients, and employees. It should be fun."

1. Rosenthal R. & Rosnow R L (eds.), *Artifact in behavioral research*. New York, NY: Academic Press, 1969. 400 p.
2. Rosenthal R. & Rosnow R L *The volunteer subject*. New York, NY: Wiley-Interscience. 1975. 266p.
3. Rosenthal R & Jacobson L. *Pygmalion in the classroom*. New York, NY: Holt Rinehart & Winston, 1968. 240 p.