

Letters

What To Do about ESP

Churchman's review (Book Reviews, 2 Sept., p. 1088) of Hansel's evaluation of ESP (extrasensory perception, né mental telepathy) is just right, for without pique, anger, or moralizing it tells the puzzled intellectual what he should do about his desire to be scientifically tough without squeezing all the excitement of mystery out of reality. Churchman gives the mind in conflict a choice among three attitudes, each of which is dignified, intelligent, and sanctioned by eminence, and the conflicted soul can choose or even perhaps (say I) choose differently on different days: No. 1 on Sunday, No. 2 in the lab, No. 3 at dinner. These three attitudes are as follows:

1) You put God, immortality, ESP, and, quite probably, free will into one category of beliefs that you accept without empirical validation, leaving the great world of causal physicalism to your other faith that observation and experiment will ever support more and more determinism, even though they be blocked here, there, and everywhere at the frontiers of science.

2) Or you can dispense with God, immortality, and ESP and stick to the alternative of No. 1. This is what Hansel tries to do about ESP, what Churchman (and I too) would prefer for ESP, what Pfungst did successfully with Clever Hans, the telepathic horse, who could solve arithmetical problems but only when his questioner knew the answer, what Griffin did about the flying bat's ability to avoid stretched wires in the dark (ultrasonic sonar), and what is going on in our learning about the language of the bees and the cues of birds in migratory navigation. This leaves a lot of enticing ignorance around, but the tough-minded empiricist still sticks to his faith that the new problems will

eventually yield to the experimental method by putting the mysteries into a single causal system.

3) The third attitude seems to me to differ from the second in respect of the hopes of the investigator, who is excited by mystery and does not really want it to disappear. He interprets the failure of experimental ingenuity to do for ESP what was done for Clever Hans and the bats as evidence that physical determinism falls short of being capable of a complete description of nature—an attitude resembling that of the 19th century vitalists. A failure under attitude No. 2 is a success under No. 3, and, since No. 2 depends upon a faith, it can be argued that No. 3 is simply insisting on a counterfaith. The defense of No. 3 to No. 2's charge of disloyalty to the scientific credo that has already produced so much progress is that this kind of disloyalty has also produced progress, yet (say I) the history of science provides no evidence that every disloyalty to the credo is more productive of progress than is the meeting of ignorance with a fairly consistent loyalty.

Churchman notes that Hansel makes a great deal of the role of both conscious and unconscious deception as they have supported parapsychological phenomena, and he goes further to note how great also is the role of deception in scientific observation. He is right. He is talking about the difference between sensation, the naked empirical core of observation, and perception, which has all the subjective complements added to it. The visual constancy of perceived size of receding objects when the perceiver has adequate cues to the change of distance is a case in point, but even better is the "unconscious inference" (Helmholtz's phrase) of stereoscopic perception where the disparity of two

bidimensional binocular images gives rise to perceived tridimensionality) with no insight by the observer into what is going on.

The classical experiment on the effectiveness of unconscious cues is Oskar Pfungst's on the arithmetically competent horse, Clever Hans, who excited scientific Germans 60 years ago as much as ESP excites Americans now. Hans tapped out with a forefoot numerical answers, starting tapping and stopping on tiny cues given unconsciously by almost any questioner who knew the answers and wanted Hans to succeed. The cues were mostly visual: very slight movements of the questioner's body were perceived by Hans, and blinders diminished his ability greatly. Nowadays we know that very many experiments are influenced by cues that the experimental subject, human or animal, gets from the experimenter. The expectation or hypothesis of a human experimenter may influence the results he gets from human subjects, and even the behavior of a randomly selected rat may be improved if the experimenter is deluded into believing that the rat is extraordinarily bright. All these investigations from Pfungst down to 1964 have been excellently reviewed by Robert Rosenthal in his introduction to the reprint of Oskar Pfungst's *Clever Hans* (Holt, Rinehart and Winston, New York, 1965) and the reader who wants to see just how attitude No. 2 works in these puzzling cases can read it there.

The joker about Rosenthal's scientific account of unconscious cuing, with the solution still unfulfilled in so many cases, is that it can also be read parascientifically. I tried that and was astonished at the result, for every time you strike the evidence of the effect of the experimenter's thoughts or attitudes upon the subject's opinions or behavior you can think, if that is what you wish, that you have here evidence of the operation of the paranormal. Why shouldn't it be paranormal if it is not demonstrably normal? And why shouldn't this voice from the cabinet behind the medium be the spirit of Richard Hodgson, who said he'd come back after death if he could, if it is not demonstrably not the spirit of Richard Hodgson? Why not indeed?

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