


## ESP—Perception Without Sensation?

**LOQ 6-24** What are the claims of *ESP*, and what have most research psychologists concluded after putting these claims to the test?

The river of perception is fed by sensation, cognition, and emotion. If perception is the product of these three sources, what can we say about **extrasensory perception (ESP)**, which claims that perception can occur apart from sensory input? Are there indeed people—any people—who can read minds, see through walls, or foretell the future? Nearly half of Americans have agreed there are (AP, 2007; Moore, 2005).

 Do you think you might have ESP? Engage online with **Assess Your Strengths: ESP and Critical Thinking**.

If ESP is real, we would need to overturn the scientific understanding that we are creatures whose minds are tied to our physical brains and whose perceptual experiences of the world are built of sensations. The most testable and, for this discussion, most relevant ESP claims are

- *telepathy*: mind-to-mind communication.
- *clairvoyance*: perceiving remote events, such as a house on fire in another state.
- *precognition*: perceiving future events, such as an unexpected death in the next month.

Closely linked is *psychokinesis*, or “mind moving matter,” such as levitating a table or influencing the roll of a die. (The claim is illustrated by the wry request, “Will all those who believe in psychokinesis please raise my hand?”)

Most research psychologists and scientists have been skeptical that paranormal phenomena exist. But in several reputable universities, **parapsychology** researchers perform scientific experiments searching for possible ESP phenomena (Storm et al., 2010a,b; Turpin, 2005). Before seeing how they conduct their research, let’s consider some popular beliefs.

### Premonitions or Pretensions?

Can psychics see into the future? Although one might wish for a psychic stock forecaster, the tallied forecasts of “leading psychics” reveal meager accuracy. During the 1990s, the tabloid psychics were all wrong in predicting surprising events. (Madonna did not become a gospel singer, the Statue of Liberty did not lose both its arms in a terrorist blast, Queen Elizabeth did not abdicate her throne to enter a convent.) And the psychics have missed big-news events. Where were the psychics on 9/10 when we needed them? Why, despite a \$50 million reward, could no psychics help locate Osama bin Laden after 9/11? And why, when the Chilean government consulted four psychics after a mine collapse trapped 33 miners in 2010, did those psychics sorrowfully decide “They’re all dead” (Kraul, 2010)? Imagine their surprise when all 33 miners were rescued 69 days later.

After Amanda Berry went missing in Cleveland in 2003, her distraught and desperate mother turned to a famed TV psychic for answers. “She’s not alive, honey,” the psychic told the devastated mom, who died without living to see her daughter rescued in 2013 (Radford, 2013). According to one analysis, this result brought that psychic’s record on 116 missing person and death cases to 83 unknown outcomes, 33 incorrect, and zero mostly correct. To researcher Ryan Shaffer (2013), that’s the record of a “psychic defective.”

The psychic visions offered to police departments have been no more accurate than guesses made by others (Nickell, 1994, 2005; Radford, 2010; Reiser, 1982). But their sheer volume does increase the odds of an occasional correct guess, which psychics can then report to the media. Such visions can sound amazingly correct when later retrofitted to match events. Nostradamus, a sixteenth-century French psychic, explained in an unguarded moment that his ambiguous prophecies “could not possibly be understood till they were interpreted after the event and by it.”

**extrasensory perception (ESP)** the controversial claim that perception can occur apart from sensory input; includes telepathy, clairvoyance, and precognition.

**parapsychology** the study of paranormal phenomena, including ESP and psychokinesis.



“To be sure of hitting the target, shoot first and call whatever you hit the target.”

Writer-artist Ashleigh Brilliant

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“A person who talks a lot is sometimes right.”

Spanish proverb

Are everyday people’s “visions” any more accurate than the psychics’ predictions? Do our dreams foretell the future, or do they only seem to do so when we recall or reconstruct them in light of what has already happened? Are our remembered visions merely revisions? After famed aviator Charles Lindbergh’s baby son was kidnapped and murdered in 1932, but before the body was discovered, two Harvard psychologists invited people to report their dreams about the child (Murray & Wheeler, 1937). How many visionaries replied? 1300. How many accurately envisioned the child dead? Five percent. How many also correctly anticipated the body’s location—buried among trees? Only 4. Although this number was surely no better than chance, to those 4 dreamers, the accuracy of their apparent precognitions must have seemed uncanny.

Given the countless events in the world each day, and given enough days, some stunning coincidences are bound to occur. By one careful estimate, chance alone would predict that more than a thousand times per day, someone on Earth will think of another person and then, within the next five minutes, learn of that person’s death (Charpak & Broch, 2004). Thus, when explaining an astonishing event, we should “give chance a chance” (Lilienfeld, 2009). With enough time and people, the improbable becomes inevitable.

### Putting ESP to Experimental Test

When faced with claims of mind reading or out-of-body travel or communication with the dead, how can we separate fiction from strange-but-true fact? At the heart of science is a simple answer: *Test them to see if they work*. If they do, so much the better for the ideas. If they don’t, so much the better for our skepticism.

Both believers and skeptics agree that what parapsychology needs is a reproducible phenomenon and a theory to explain it. Parapsychologist Rhea White (1998) spoke for many in saying that “the image of parapsychology that comes to my mind, based on nearly 44 years in the field, is that of a small airplane [that] has been perpetually taxiing down the runway of the Empirical Science Airport since 1882 . . . its movement punctuated occasionally by lifting a few feet off the ground only to bump back down on the tarmac once again. It has never taken off for any sustained flight.”

How might we test ESP claims in a controlled, reproducible experiment? An experiment differs from a staged demonstration. In the laboratory, the experimenter controls what the “psychic” sees and hears. On stage, the psychic controls what the audience sees and hears.

**Testing psychic powers in the British population** Psychologists created a “mind machine” to see if people could influence or predict a coin toss (Wiseman & Greening, 2002). Using a touch-sensitive screen, visitors to British festivals were given four attempts to call heads or tails, playing against a computer that kept score. By the time the experiment ended, nearly 28,000 people had predicted 110,959 tosses—with 49.8 percent correct.



Courtesy of Claire Cole

Daryl Bem, a respected social psychologist, once quipped that “a psychic is an actor playing the role of a psychic” (1984). Yet this one-time skeptic reignited hopes for replicable evidence of ESP with nine experiments that seemed to show people anticipating future events (Bem, 2011). In one, when an erotic scene was about to appear on a screen in one of two randomly selected positions, Cornell University participants guessed the right placement 53.1 percent of the time (beating 50 percent by a small but statistically significant margin). Bem wondered if his “anomalous” findings reflected an evolutionary advantage to those who can precognitively anticipate future dangers.

Despite the paper having survived critical reviews by a top-tier journal, critics scoffed. Some found the methods “badly flawed” (Alcock, 2011) or the statistical analyses “biased” (Wagenmakers et al., 2011). Others predicted the

results could not be replicated by “independent and skeptical researchers” (Helfand, 2011). And still others had more sweeping objections: “If any of his claims were true,” wrote one cognitive scientist, “then all of the bases underlying contemporary science would be toppled, and we would have to rethink everything about the nature of the universe” (Hofstadter, 2011).

Anticipating such skepticism, Bem has made his research materials available to anyone who wishes to replicate his studies. Multiple attempts have met with minimal success and continuing controversy (Bem et al., 2014; Galak et al., 2012; Ritchie et al., 2012; Wagenmakers, 2014). Regardless, science is doing its work:

- It has been open to a finding that challenges its own assumptions.
- Through follow-up research, it has assessed the validity of that finding.

And that is how science sifts crazy-sounding ideas, leaving most on the historical waste heap while occasionally surprising us.

For nineteen years, one skeptic, magician James Randi, offered \$1 million “to anyone who proves a genuine psychic power under proper observing conditions” (Randi, 1999; Thompson, 2010). French, Australian, and Indian groups have made similar offers of up to 200,000 euros (CFI, 2003). Large as these sums are, the scientific seal of approval would be worth far more. To refute those who say there is no ESP, one need only produce a single person who can demonstrate a single, reproducible ESP event. (To refute those who say pigs can’t talk would take but one talking pig.) So far, no such person has emerged.

### RETRIEVAL PRACTICE

RP-20 If an ESP event occurred under controlled conditions, what would be the next best step to confirm that ESP really exists?

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To feel awe, mystery, and a deep reverence for life, we need look no further than our own perceptual system and its capacity for organizing formless nerve impulses into colorful sights, vivid sounds, and evocative smells. As Shakespeare’s Hamlet recognized, “There are more things in Heaven and Earth, Horatio, than are dreamt of in your philosophy.” Within our ordinary sensory and perceptual experiences lies much that is truly extraordinary—surely much more than has so far been dreamt of in our psychology.

“At the heart of science is an essential tension between two seemingly contradictory attitudes—an openness to new ideas, no matter how bizarre or counterintuitive they may be, and the most ruthless skeptical scrutiny of all ideas, old and new.”

Carl Sagan (1987)

### RETRIEVAL PRACTICE ANSWER

RP-20 The ESP event would need to be reproduced in other scientific studies.