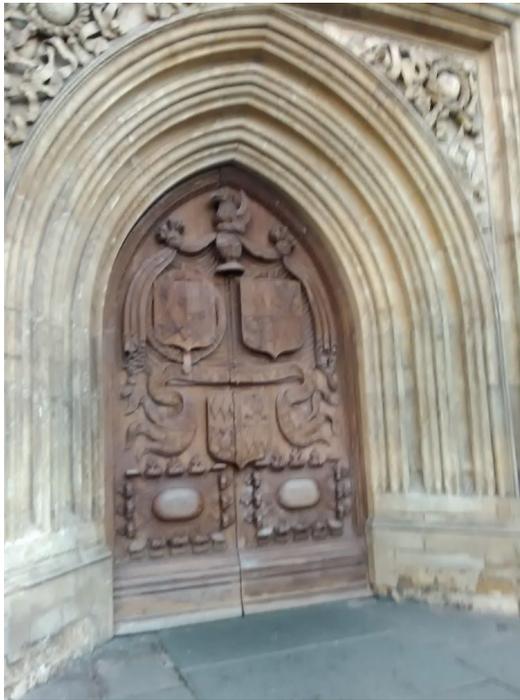




# Telepathy and Clairvoyance in the Laboratory

Unlike real world accounts of psychic or ghostly phenomena, the laboratory provides the opportunity to control many of the counter explanations for various forms of ESP. It should not be surprising that the bulk of work in parapsychology has been done in the lab. In fact, the strongest cases for ESP of varying forms come from extensive a series of research studies conducted in the laboratory over the last hundred years.

## J.B. Rhine: The Pioneer of Parapsychology Laboratory Work



Rhine, having been turned off by medium and séance investigation, really pioneered the laboratory PSI study. Rhine was the first to develop a new system of cards for ESP guessing experiments called the Zener cards. Rhine was also one of the first to engage in mathematical and statistical testing of ESP, using non-psychic participants and large trial sizes to detect small effects. Finally, although little had been known, Rhine was the first to use meta-analysis, a technique of analyzing the effects of multiple studies. His work in 1934, *Extrasensory Perception*, was one of the first books with extensive significant scientific evidence of the possibility of PSI.

Although pioneering, Rhine's work drew some fair and unfair criticism. As senders and receivers of Rhine's ESP experiments were in the same room, some critics justly claimed that the receiver, or guesser, might be noticing the environmental or bodily cues of the sender. Others justly noted that responses were hand recorded which could lead to errors. Other critics became unreasonable, making claims that participants were

actively cheating by peeking through locked doors and windows, or running across campus to get peeks at the sender material. Rhine listened to reasonable criticisms and adjusted protocols over time to account for them. Although significant results declined from these changes, debate still ensues over whether stricter protocols prevented cheating, or the vigilant researchers produced a more stressful environment that inhibited psychic performance.



## Dream Telepathy



The most notable of psychic dream studies was the Maimonides Dream Laboratory in New York during the 1960s and 70s. Researchers Montague Ullman, Stanley Krippner, and Charles Honorton conducted ten separate studies on the topic of dream telepathy. The general procedure of these studies would involve a sender who concentrated on a randomly selected image of a famous painting, and a receiver who would go to sleep, but be awoken during REM sleep to report their dreams. Each participant would go through anywhere from seven to twelve nights of this activity.

Independent raters would then compare dream content with the sender's randomly selected image. Their results indicated highly significant results between dream content and the sender's image that was focused on (Krippner, 1973).

Much more recently, Sherwood and Roe (2003) reexamined the Maimonides experiments with additional dream telepathy studies over the last 50 years. The results showed that there remained a small but significant relationship between dreams and images, but that the relationship was much smaller than the initial findings of the Maimonides studies. Critics attribute this reduction in the relationship to poor methods in the initial Maimonides studies, while others make the case that the bulk of studies after the Maimonides studies did not have fully functional laboratories where dreams could be assessed immediately after REM sleep. They also argued that later studies used random subjects, while the Maimonides subjects were selected for psychic ability.

## The Champion of ESP: The Ganzfeld Procedure and Auto Ganzfeld



In large part, the bulk of evidence for ESP is contained within the many studies that adopted the Ganzfeld technique. This technique, similar to earlier experiments, has a sender (someone sending a mental image to the receiver) and a receiver (someone trying to pick up the psychic message from the sender). In addition, similar to previous experiments, randomly selected images are given to the sender for the receiver to pick up. What makes the Ganzfeld technique different is that the receiver is placed in a low-stimulus environment, where their eyes are covered as they lay in a reclining chair. Meanwhile they wear headphones playing white noise and are bathed in red light. The idea

behind using sensory isolation is to minimize the input from the five senses so that the "sixth sense" (i.e., ESP) occurs more easily. After a period of time, the sender is to select one of four possible target pictures that the sender was focusing on.

The Ganzfeld achieved spectacular results at first glance. 55% of studies showed a significantly greater than chance selection of the target picture. However, as is typical in the field, the Ganzfeld was criticized particularly by Ray Hyman. In response, Honorton reanalyzed a specific subset of studies that were less prone to the criticisms that Hyman pointed out. Results from these



## Introduction to Parapsychology

studies still averaged a 35% hit rate (chance was 25%), which remained a highly significant finding.

In response to criticisms and debate within the parapsychological community, Honorton developed the *Auto Ganzfeld*, a ganzfeld procedure that uses computers to automate much of the ganzfeld process. Between 1983 to 1989, eleven studies were conducted and an overall hit rate of 32% was produced, which remained a powerful, significant finding.

The Ganzfeld research findings remain controversial. Several meta-analysis have been conducted with contrary results, depending on who was performing the analysis. What can be unbiasedly said is that the Ganzfeld technique continues to be used by parapsychologists, maintain very stringent controls, and produce statistically significant results (Honorton, 2001).



*Side note: Conducting Statistical Analysis. You might be wondering why overall analysis about the Ganzfeld or other analysis of parapsychology studies put together end up with conflicting results. The not-so-simple answer is that results are only as good as the data you select and the analysis you conduct. Many published debates have occurred from skeptics using "selective data," omitting certain studies while including those that support the claim. Several have been caught in this practice*

*and re-analysis with full representative datasets maintain the significant effects of the Ganzfeld technique for ESP. Again, science is not free from belief, and beliefs can unconsciously lead us to being selective in the information or data that we use. Such is the human condition.*

## Precognition in the Laboratory

### Researching Precognition in Everyday Life



Many anecdotal accounts of precognition have been shared and studied in the last 100 years. Most notably, when J.B. Rhine's work became more popularized, many people would submit letters of their paranormal experiences to the laboratory. Rhine's wife Louisa started collecting these accounts in the 40s and ended up with over 10,000 accounts of various paranormal phenomena, the majority of which involved precognition. Other researchers such as Besterman in the 30s had participants send dream reports to him before interacting with any media or other people. However, out of 45 possible connections between dreams and

connected events, Besterman found only two instances that he concluded were a hit or good match. Cox conducted a study in the 50s where he reasoned that, if precognition existed, it would warn people of danger. Thus, on days of train accidents, significantly less people should be on the train as compared to a normal day. His findings, despite a smaller sample, were significantly confirmed. Skeptics, however, point to bad weather, and not precognition as a more likely explanation (Broad, 1938).

Although beating a dead horse, like most paranormal events, fieldwork in studying PSI



becomes very difficult to assess scientifically because of the lack of control a researcher has over all the influences that could affect the average person. Although we discussed common psychic occurrences in a previous session (see our Psychic Experiences section), the lack of ability to create controls and experimental conditions to verify this type of PSI is why the majority of precognition studies in parapsychology have been conducted in the laboratory.

### Experimental Work on Precognition



Again, J.B. Rhine was the pioneer for precognition studies. Using a variant of his methods for studying clairvoyance, Rhine would ask participants before shuffling a Zener deck how the cards would turn out in order. One particular subject who appeared to show talent in PSI averaged in hundreds of trials 6.3 to 7.1 cards correctly per 25 card deck, a highly significant result. Later work by Schmitt involved participants correctly guessing which of four colored lights would turn on over 63,000 trials. His results obtained 26%, which given the large number of trials, is a statistically significant result (chance would expect 25%). Criticism from Hymen suggested that the lamps lighting pattern was not truly random, accounting for the above

chance success. Schmitt conducted three million trials of his device, proving that the lights were indeed random.

In modern times, many studies of precognition using random number generators have been conducted. For instance, Honorton and Ferrari in 1989 examined all the precognition studies from 1935 to 1987. Their examination concluded that there was a strong overall significant effect from these studies, lending support to the existence of precognition. Critics have responded that the methods between the studies analyzed were too varied, contributing error to the analysis.

### Precognition to Presentiment



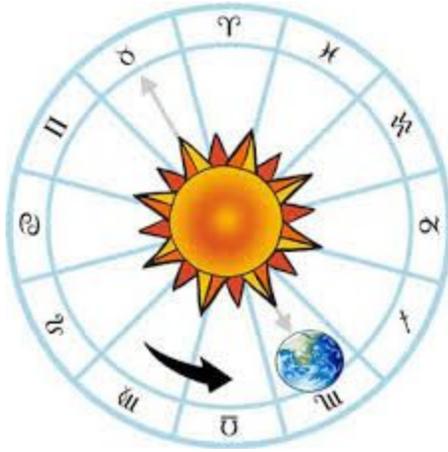
Whereas precognition involves the conscious commitment to guessing the outcome of future events or tasks, some parapsychologists became interested in the role of feelings, hunches, and intuition. As a result, *presentiment* (AKA feeling the future) has become an established line of research in parapsychology. Rex Stanford (1990) is considered to have provided the most comprehensive theory for presentiment under the title of

Psi-Mediated Instrumental Response (PMIR). In essence, the theory states that presentiment is evolutionarily adaptive toward avoiding danger. As such, our hunches lead us in real life away from



## Introduction to Parapsychology

potentially dangerous circumstances without our conscious knowledge. PMIR in real life would appear as luck or fortuitous circumstances.



*Side note: the PMIR theory, while original in parapsychology, is actually a variant of occult and mystical Jewish and Christian philosophy that has essentially made very similar philosophical claims about how individual will affects one's life through the appearance of coincidence. Kabbalists and Occultists would essentially claim that PMIR is the essence of the philosophy of magic. This belief has been circulating among these esoteric religions for more than 2,500 to 4,000 years, depending on the historian.*

By the mid-1990s, Dean Radin and Dick Bierman took a previous study from Vassy where electrodermal activity (EDA) was measured (i.e., detection of perspiration). These researchers found that EDA increased before the subject was shown a shocking photograph, noting that the subject had no knowledge that the photograph was going to be shocking in content. Criticism of this method included the claim that anticipation of a stimulus can also stimulate EDA, but reanalysis by Radin demonstrated that his findings could not be accounted for by anticipation effects on EDA. In 2014, an analysis of presentiment studies conducted by Trissoldi and colleagues examined 82 studies on presentiment. Their meta-analysis findings from these laboratory studies show a highly significant effect (Radin & Pierce, 2015).

### Feeling the Future (The Bem Debate)



Daryl Bem, for those in academic psychology, is a well-respected mainstream research psychologist. In fact, there are very few college textbooks in psychology that do not contain his name and research. Bem also happens to be one of the few superstars in psychology that has been a constant advocate for parapsychology. Having become interested in precognition, Bem would have students memorize a list of random words and test their recall. However, he would have them

study the list of words *after* trying to recall them. In 2011, Bem published nine experiments using this technique in which all but one showed significant results. In other words, subjects would score significantly better on recalling words that they rehearsed after trying to recalling them. Essentially, students would perform better than chance by studying the material after taking the test! This work was published in the premier scientific journal for Social Psychology, the [Journal of Personality and Social Psychology \(Links to an external site.\)](#).

The publication of this study in a mainstream psychology journal caused an uproar among the



scientific community, and even made national news headlines. Responses ranged from outrage to applause that a parapsychology study could be published in such a prestigious journal. To Bem's credit, his methods and apparatus were openly shared, and subsequent studies have replicated Bem's findings while others have found no significant result. Whereas the debate is ongoing, Bem's work reminds us that substantial bias remains in the academic community toward the study of parapsychology. At the same time, publication of Bem's work in such a highly regarded journal may suggest that attitudes among some in the scientific community are softening. Regardless, an entire section of a chapter by Palmer (2015) recently published in *Parapsychology: A Handbook for the 21st Century* shows how much time and contention resulted from Bem's publication of these findings.

General Content from Watt, (2007) and Irwin and Watt, (2007)