

**Discussion Article 2***for February 2*

A few weeks ago, a psychology journal announced that it would publish an article that supposedly had scientific evidence for extra-sensory perception (ESP).

Read the New York Times article about this paper, and the followup article, published a few days later. Skim through the article (by Bem) and the rebuttal (Wagenmakers, et. al.) to get a sense of the experiments they did and the statistical evidence for (and against) ESP.

Be prepared to discuss:

1. The main elements of the experiments Bem performed. How did they work? Why did he think they were testing ESP?
2. What statistical evidence did he use to claim that the results were significant? Is what they did reasonable? Is the evidence believable?
3. Both the NYT followup and the rebuttal article claim that using a Bayesian analysis would not have found a significant result. Why? Do you agree?
4. Fisher said (I'm paraphrasing from memory) a low p-value either meant that the null hypothesis was false or that an extremely rare event took place. In this case, most people believe that a rare event took place, not that the null hypothesis (of no ESP) was false. In general, how might you decide between these two alternatives?
5. Imagine that Bem had come to you for statistical advice before publishing. What might you have said to him?