

Using Realistic Bayesian Priors: An Example from Testing Psychic Abilities

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Abstract

After many years of investigating data in parapsychology (the scientific study of possible psychic abilities), I have observed that belief is often given higher priority than data when people formulate conclusions about the existence of psychic phenomena. Unlike traditional frequentist methods of statistical inference, Bayesian methods allow prior beliefs to be incorporated into the quantitative analysis. In this talk, I will present some of the data from experiments in parapsychology, and illustrate how different prior beliefs can lead to different conclusions, even when investigating the same data. Parapsychology provides a good illustration of how Bayesian methods can be used in a real world setting, and how they allow people to disagree even when presented with a large amount of data.