Addendum on Statistical Inference and ESP
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Moreover, one cannot require that this methodology be applied only to experiments that one personally finds questionable; if this is the correct methodology, it must be applied to *all* statistical analyses of experiments. That is to say, every research paper containing a statistical analysis must contain also an estimate of what the *prior* probability on the conclusions was, and some justification of that prior. Since important papers are those with somewhat surprising results, the prior had better be fairly low (otherwise the conclusion is not surprising) but not too low (otherwise the conclusion is not justified, as is claimed for ESP). What are the principles for estimating this? If a reviewer of the paper states that the conclusion seems to him *a prior* immensely unlikely, how do you argue that he is being unreasonable? Any data that is collected about it is now all *posterior* data. What for instance was a reasonable estimate on the probability that subjects would acquiesce in seemingly torturing people with electric shocks *before* Milgram's experiments; or the probability that mice who were starved would live longer *before* Crowell and McCay's experiment? It is hard to see how this would work in practice.