

4. Why might a researcher use an alpha level of .01 instead of .05?

A: A lower alpha level makes it more difficult to reject the null hypothesis because we are accepting less possibility that the sample result was a result of chance (i.e., random) factors.

5. Why is it more difficult to reject the null hypothesis with a nondirectional hypothesis test than with a directional hypothesis, assuming you are using the same alpha level for both types of tests?

A: With a nondirectional hypothesis test, the alpha level is split between the two tails of the distribution of sample outcomes. Therefore, if we expect an outcome to fall in one tail of that distribution, it must be more extreme in a nondirectional test than in a directional test.