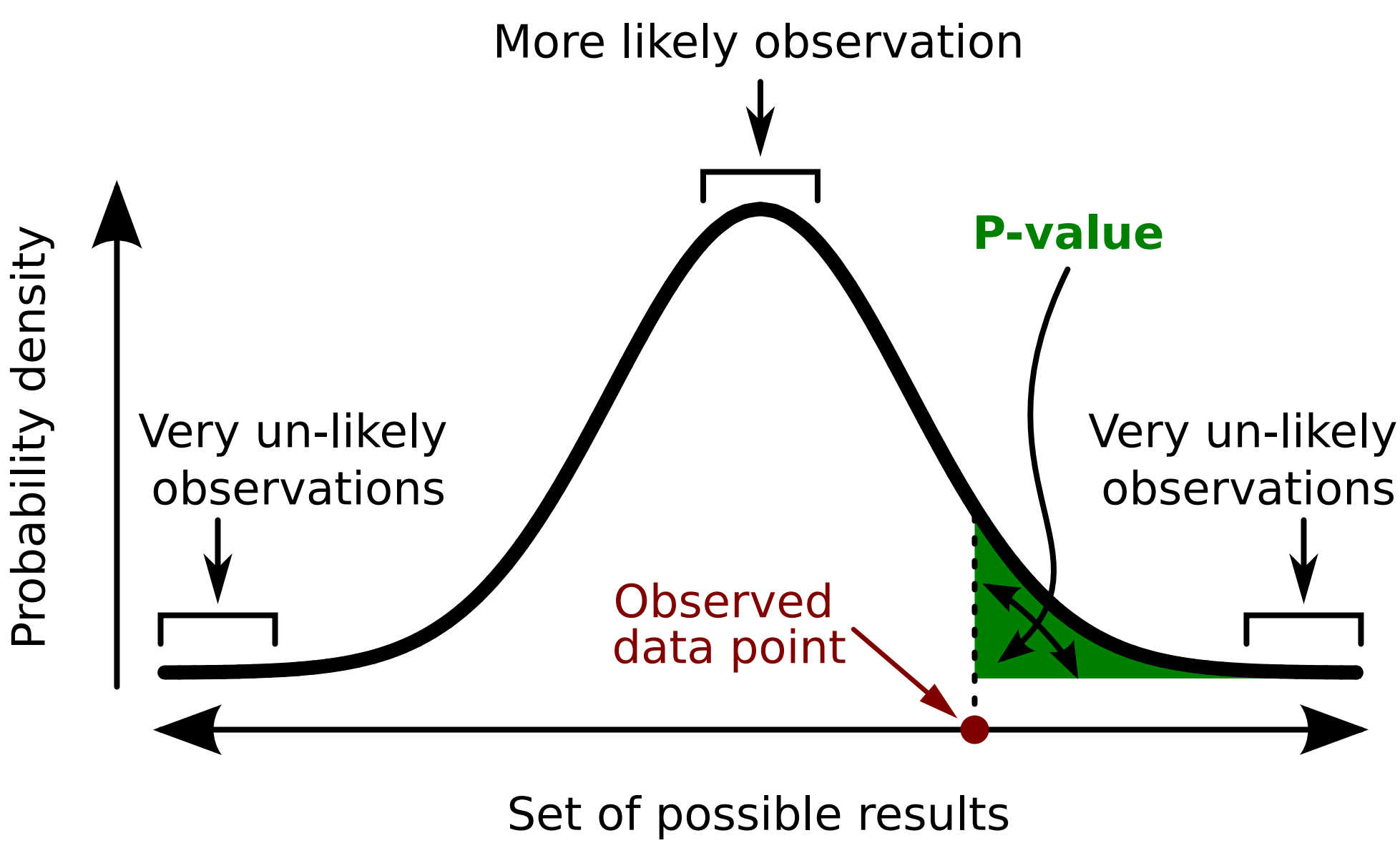
Important:

Pr (observation | hypothesis) ≠ Pr (hypothesis | observation)

The probability of observing a result given that some hypothesis is true is *not equivalent* to the probability that a hypothesis is true given that some result has been observed.

Using the p-value as a “score” is committing an egregious logical error:
the transposed conditional fallacy.



A p-value (shaded green area) is the probability of an observed (or more extreme) result assuming that the null hypothesis is true.