

# Researchers find a fine timeline between delusion and reality

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The line between reality and delusion may be just a matter of time, a new Yale study suggests.

Subjects with no history of [mental illness](#) were asked to predict which of five white squares would turn red and to report results to researchers. As

expected, most reported guessing correctly one out of five times—until researchers sped up the test. If a square turned red within approximately 250 [milliseconds](#), [subjects](#) were much more likely to say they predicted correctly. In [reality](#) they had simply predicted something that had already happened but had not consciously processed the experience.

According to the researchers, flaws in this neural timing mechanism may help explain why some people believe they are clairvoyant or mind readers: They may have already registered a person's response before they were consciously aware of the experience. Indeed, researchers found that subjects who scored highly on a scale for delusion-like belief were more likely to say they accurately predicted the appearance of the red square, even in time frames greater than 250 milliseconds.

"It's like thinking that you know it is about to rain, and then feeling the first [drops](#)," said lead author and Yale psychologist Adam Bear. "Your thought may have been subconsciously influenced by those drops, yet you consciously experience them later." The findings were reported in the *Proceedings of the National Academy of Sciences*.

**More information:** Adam Bear et al. Mistiming of thought and perception predicts delusionality, *Proceedings of the National Academy of Sciences* (2017). [DOI: 10.1073/pnas.1711383114](https://doi.org/10.1073/pnas.1711383114)

Provided by Yale University

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