

Your brain can't tell the difference: VR blurs the line between what's real and what just feels real

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What if the strong sense of immersion you feel in virtual worlds engages the very brain processes that create your everyday reality? The

distinction between "being there" in VR and "being real" may be a lot more fragile than we think.

Experiencing a virtual world can be quite an eerie experience. Your actions shape the digital landscape around you, and the sensations are so real that you feel truly there. In VR research, scientists have called this feeling "presence" for years. Psychologists have researched that the "sense of reality" is our brain's remarkable ability to discern what is real and what is not. Is it possible that these two diverging concepts are merely two sides of the same coin?

In a [new analysis](#) appearing in *Perspectives on Psychological Science*, researchers argue that "presence and reality can be considered conceptually, mechanistically, and phenomenologically continuous." This means the profound immersion you feel in VR and your brain's constant construction of "reality" share deep, underlying roots.

The brain's secret reality switch

Researchers from various disciplines have often interchanged "presence" with "reality," which may indicate that they are accessing a common cognitive process within the brain. It's not simply sloppy language use; rather, this represents an insight into how our brains function.

Think about a very realistic and detailed dream or an illusion that seems highly realistic as well. The fact that the experience seemed so real, although you were conscious that it was actually an illusion, exemplifies some of the same "brain tricks" employed by virtual reality.

Our brains run a complex reality check program on a continuous basis. Research using [brain imaging](#) has shown that the same neural circuitry is activated when experiencing both virtual reality and real-world events. More specifically, areas of the frontal lobe limbic system (prefrontal

cortex, insula and amygdala) activate when something is perceived as being "real."



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Beyond the screen: VR as a reality trainer

This striking overlap between the virtual and the actual is not just a nifty scientific discovery but has practical uses. [Virtual reality exposure therapy](#) (VRET) is a great tool for the treatment of phobias and even PTSD. Scientists claim that VR may also be used to treat disorders in which reality becomes altered in some way.

Consider conditions like depersonalization-derealization disorder (DPDR), where individuals feel detached from their own bodies or the world around them. According to the study, "VR studies that investigate the sense of presence could theoretically be used to effectively investigate concepts relating to the sense of reality, including depersonalization-derealization disorder (DPDR) and exposure therapies."

If virtual cues can engage the same brain machinery as real ones, carefully designed VR experiences could potentially help retrain the brain's reality-checking mechanisms for these challenging conditions.

The future is now: What's truly real?

Due to the ongoing nature of this science, the analysts cater to the requirement for direct and comparable laboratory tests of presence and actuality. Nevertheless, the idea is quite a leap. If virtual reality (in our everyday experience) is part of the same continuum, then virtual worlds are not simulations; they plug into the same neural hardware that makes up our "real life."

With the move of virtual reality beyond entertainment arcades, classrooms, therapy rooms, and more, it becomes increasingly vital to understand. Next time you put on your VR headset, keep this in mind. Your brain is not merely absorbed in a game; it is busy running the reality check program. This research demands further experiments to test the functional and neural equivalence of these sensations. This research shows promise for developing potential interventions as well as improving our understanding of consciousness itself.

More information: Oliver Singleton et al, Presence Is Reality: Rethinking Virtual and Real-World Consciousness, *Perspectives on Psychological Science* (2026). [DOI: 10.1177/17456916251414030](https://doi.org/10.1177/17456916251414030)

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