A stunning new look at deja vu

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A blind man suffering déjà vu. It sounds like a contradiction in terms – but the first case study of its kind has turned the whole theory of déjà vu on its head.

Traditionally it was thought images from one eye were delayed, arriving in the brain microseconds after images from the other eye – causing a sensation that something was being seen for the second time.

But University of Leeds researchers report for the first time the case of a blind person experiencing déjà vu through smell, hearing and touch.

The University is a world-leader in déjà vu research. The ground-breaking work of the University's Institute of Psychological Sciences has been widely published in both the scientific and the news media. Their work is particularly aimed at understanding chronic déjà vu, where patients are constantly plagued by the feeling of having "been here before".

In a new paper published in the journal Brain and Cognition*, researchers Akira O'Connor and Chris Moulin relate how mundane experiences – undoing a jacket zip while hearing a particular piece of music; hearing a snatch of conversation while holding a plate in the school dining hall – were examples of how deja experiences were triggered in the blind subject.

"It is the first time this has been reported in scientific literature," said O'Connor. "It's useful because it provides a concrete case study which

contradicts the theory of optical pathway delay. Eventually we would like to talk to more blind people, though there's no reason to believe this man's experiences are abnormal or different to those of others.

"Optical pathway delay is a quite antiquated theory, but still widely believed – and was the basis for the déjà vu sequences in Joseph Heller's novel Catch-22. But this provides strong evidence that optical pathway delay is not the explanation for déjà vu. The findings are so obvious, so intuitive, that it's remarkable this research has never been done before."

O'Connor admits that to the person experiencing déjà vu, it feels almost inexplicable. "And because it feels so subjective, psychology, in striving for objectivity, has tended to shy away from it. But psychologists have gone some way to illuminating things like the 'tip of my tongue' sensation when you can't think of a particular word. We just wanted to get to the same sort of understanding for déjà vu."

O'Connor's thesis, due to be completed next year, examines the experimental induction of déjà vu through hypnosis. "We now believe that deja experiences are caused when an area of the brain that deals with familiarity gets disrupted," he said.

In one experiment, students are asked to remember words, then hypnotised to make them forget – and then shown the same word again to induce a feeling that they have seen it before. Around half said this brought on a sensation similar to déjà vu – half of whom said it was definitely déjà vu.

O'Connor would like to take the research further: "It would be really neat to do some neuro-imaging on people during genuine spontaneous déjà vu experiences – but it's very difficult to get them to have them on demand…"

Source: University of Leeds