



# Brain activity decides what goes viral online

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GANGNAM STYLE: Viral sensations such as this one would have stimulated the temporoparietal junction in the brain.

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Ever heard of the temporoparietal junction? No, it's not a train station, nor is it a '60s-style rock group. The TPJ, as it's also known, is the area of the brain that gets activated when we're thinking about how to share something and who to share it with.

If you want to make something go viral on [Facebook](#) or [Twitter](#), in other words, the TPJ is where you want to hit - because it lights up like a Christmas tree before we even know we're going to share something. The more activated it is, the more persuasive the share. And it doesn't necessarily have anything to do with what we think is cool ourselves.

That's according to a study published in [Psychological Science](#), where UCLA scientists put students in MRI machines and set them a test that involved deciding what to share with each other. Being Los Angeles, the test had to do with entertainment: some of the students played production interns, the others producers, and they had to decide which TV pilot shows they were going to pitch or bank on.

If the TPJ was particularly active when someone saw an idea for a pilot, it successfully predicted not only whether they would pitch a given show, but how persuasive they were when making that pitch later on. The psychologists behind the study called this "the salesperson effect."

"We're constantly being exposed to information on [Facebook](#) and [Twitter](#)," said Matthew Lieberman, the study's senior author, explaining its rationale in a [UCLA release](#).

"Some of it we pass on, and a lot of it we don't. Is there something that happens in the moment we first see it - maybe before we even realise we might pass it on?"

The answer was yes, and not in the way the scientists expected. The scientists expected the regions associated with memory would light up; the TPJ effect was a surprise.

"Nobody had looked before at which brain regions are associated with the successful spread of ideas," added Emily Falk, who conducted the research as a UCLA doctoral student in Lieberman's lab. "

You might expect people to be most enthusiastic and opinionated about ideas that they themselves are excited about, but this research suggests that's not the whole story.

"Thinking about what appeals to others may be even more important."

It's one of those conclusions that makes a lot of intuitive sense: you know that feeling you get when you see something on Facebook that you have to share with a specific friend? That moment when you get an image of how they're going to react when they see that news story or this kitten? That, apparently, is your TPJ working overtime.

The TPJ is located around the centre on both sides of the brain, just behind your ears. Its job is to connect us

to the thoughts and beliefs of others; the kind of empathy you get from watching a movie or reading a novel. Damage to the TPJ has been known to result in out-of-body experiences: literally stepping outside of yourself.

Three years ago, an MIT team showed that [stimulating the TPJ affected moral reasoning](#): subjects were less likely to care about the inherent morality of a situation (in this case, whether a man should let his girlfriend walk across a rickety bridge) and more about outcomes (did she get across safely?).

So the next time you share a great tweet or a cute picture on Facebook and get exactly the "squee!" you were looking for, remember which brain part to thank.

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