

Why it hurts to sell your stuff

Brain-imaging study proves that it's hard to part with the things we own.

Katharine Sanderson

Have you ever felt your heart wrench when selling your beaten-up old car, or offered up a formerly prized possession to the voracious hordes on eBay with a hint of sadness?

If so, you have experienced the 'endowment effect' – in which people value a something more once they possess it. Exactly why this happens is not known. It could be because humans overvalue the positive and ignore the negative associations, or it could be that the thought of losing something is just too much to bear.

Now, psychologists led by Brian Knutson at Stanford University in Palo Alto, California, have imaged the brain as it struggles with this effect – and have shown that parting with our possessions really does hurt¹.

Fear of loss

“Selling something you like is painful,” says Scott Rick, who studies emotional responses at the University of Pennsylvania, Philadelphia, and is co-author of the paper, published in the journal *Neuron*. Their findings suggest that the endowment effect is due to simple anxiety over losing our possessions, rather than any tendency to overvalue it.

Knutson’s team recreated the endowment effect in the lab. They gave each of their 24 right-handed subjects a gift of two out of six desirable electrical items, and \$60 in cash. Volunteers were then presented with a picture of one of the six items, and asked to think either about buying the item or selling it. Four seconds later, they were told a price for the item, and then four seconds later they were given a further four seconds to choose whether to sell or buy the item at that price, depending on whether they were being tested on willingness to buy or sell.

The endowment effect is alive and well, Knutson and his colleagues found. “We might only pay \$35 for an iPod nano, but we won’t sell it for less than \$70,” says Rick.



Once we've bought something, it can take an even higher price to make us let it go.

Punchstock

Money on the brain

The tests were run in a magnetic resonance imaging scanner, tracking certain areas of the brain known to be associated with buying and selling. If the reason for the endowment effect came from the products being overvalued by their owners, Knutson's team expected to see a part of the brain called the nucleus accumbus change during the test. It didn't, "whether buying or selling, the activation in the nucleus accumbus looked the same", says Rick.

But others part of the brain, the insula, which has a role in the experience of pain, and the greater mesial prefrontal cortex became activated when the subjects contemplated selling one of their items. If they had ranked that item as one they particularly liked, the change in the insula was greater.

According to this research, this is because of loss aversion, says Rick. "It is not because people are overplaying the positive [aspects of a possession]." Rather, we just become attached to objects we own — so much so that it takes a lot to convince us to part with them.

References

1. Knutson, B. *et al. Neuron* **58**, 814–822 (2008).
-