

# Our quantum-entangled marriage

It all began rather innocuously. Right from the start, Natalie and I had a lot in common. We both liked to travel. We both enjoyed sailing. And we both tended to listen to rock music played a little too loudly. Then, after we got married a few years later, it became more noticeable. We started buying our clothes in the same shops. We shared books after we had finished reading them. I even started to do the ironing without being asked.

But more recently, things have taken a turn for the downright weird. I have come to know, without asking, when Natalie would like a cup of tea and what she would like to watch on the TV. I see things in the shops that I know she would like. And the other day, I came downstairs for breakfast to find that we had chosen to wear matching jeans, T-shirts and jumpers. Now, I do not wish to alarm anyone, but the facts speak for themselves: my wife and I are becoming quantumly entangled.

When I think about it, the possibility that our individual wavefunctions have somehow become intertwined explains quite a lot. The fact that we only ever get invited anywhere as a couple is evidently some kind of universal recognition of this superposition of states. And our shared interests and wardrobe near-misses are a clear indication of non-localism in action. But the big question is how this entanglement arose in the first place.

You could argue, I suppose, that Natalie and I have always been entangled, even if we are only now noticing it. And if you subscribe to the whole “soul mate” idea, then this postulate is perhaps for you. However, we may also have been subjected to some kind of entanglement process. Theoretically, this could have been part of our wedding ceremony; but to be honest, I was pretty attentive on the day and I am sure that I would have noticed something. My preferred explanation is that just by being around and communicating with each other over the past few years, we have somehow brought this about ourselves – entanglement by interaction.

Having made at least some attempt to understand how this condition has arisen, I have in the last few days been giving considerable thought to the impact that it will have on my life. Or rather, on *our* lives. I mean, as part of an entangled pair, I cannot just think of “me” any more. We are in this together, whether we are sitting next to each other on the sofa or at opposite ends of the cosmos. In fact, I probably even need to be careful about what I think, as anything that pops up in my mind is likely to appear in Natalie’s as well. Although, I guess I could always claim that it was Natalie who thought it first.

The thing that is causing me the most consternation, however, is the uncertainty. I used to know who I was, where I was and where I was going. But given recent revelations, I am not so sure any more. It seems as if nothing is definite, and that my life is merely a series of probabilities. Quite frankly, this is going to cause chaos. Take my daily commute to work, for example. I used to just take a right at the end of the road, head into town and park near the office. But now it seems that, rather than just take one route, I take every route. Simultaneously. How am I supposed to cope with that? The diesel costs alone will ruin me.

And if we add to this the complicating factor of the whole entanglement thing, then it starts to look even



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worse. Because surely anything that affects my quantum state affects Natalie’s as well, and vice versa. Take polenta, for example. Have I ever eaten polenta? No. Do I like polenta? I have no idea. But if Natalie were to decide that she likes polenta, then I would know that I like it as well. Without ever having tasted it. Even if Natalie were in Outer Mongolia when she tried polenta and I was in Shepton Mallett, then I would still know. Spooky snacking at a distance, indeed.

Yet there may also be certain advantages to being in an entangled state. We could, for example, offer our services in the field of quantum cryptography, using our entanglement to generate shared cryptographic keys without risk of interception. We would be like the Navajo “wind-talkers” of the Second World War, albeit a bit geekier and with (hopefully) less risk of being shot. Alternatively, we could act as teleporters, transporting quantum states across great distances – though I understand that this would require one of us to become coupled with the teleporter, which may not meet with universal approval.

Nevertheless, things are looking up. When I first learned of our entanglement, my initial inclination was to try to stop it. Perhaps through some fundamental measurement process, like a full-body CT scan, followed by driving really fast past a speed camera. If we were lucky, this could cause our collective wavefunction to collapse and allow us to continue as individuals. But now that I have given it a bit more thought, perhaps it is not so bad. Knowing that our fates are intertwined forever does have a certain appeal.



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