

The Three Brains: Why Your head, Heart and Gut Sometimes Conflict

Published by  Australian Spinal Research Foundation at  July 26, 2016



What is a brain? This might seem like a stupid question – it's that thing between your ears, the grey matter, the master controller of the nervous system that sits atop the spine and under your skull. Behavioural modelling expert and author Marvin Oka has an interesting claim to make on this seemingly simple issue – that we actually have three brains. They reside in the head, the heart and the gut. All three have massive networks of neurons and very distinct roles. It explains the clash between what we think and what we often feel. Only by understanding the three brains can we arrive at a point where we make better decisions.

[We caught up with him to find out more.](#)

According to Marvin Oka, we don't need to understand the three brains in order to do more. It's not even so we can gain mastery over our skills and become better peak performers. "That's not the issue," he says. "That's not really what the world needs. The world out there is a beautiful place. It has a lot of great things, but it also has a lot of dysfunctionality as well." If we don't need higher skill levels or better peak performers, this begs a question: why the focus on multiple brain integration? Why does the world need this?

"Clearly, what society really needs is a higher order of decision making," says Oka. "We are not here to say what those decisions should be. We aren't even here to say what constitutes better decision-making. All we know is how unwise decision making works, and we know what could lead to wiser decision making."

Enter the science of the three brains, something that Oka believes could hold the key to accessing this higher order of decision-making. But before we arrive at that point, we need to look at something else. How can we possibly claim to have three brains?

Why are we calling these brains?" says Oka. "We are not calling these brains. Science is calling these brains. There has to be a technical definition to what makes a brain a brain. Your elbow is not a brain. Your kidney is not a brain (as far as we know). But there are lots of good reasons why science can actually show that the head, the heart, and the gut are brains.

They have their own intrinsic nervous systems. They've got neurons. They've got the whole range of [capabilities] in order to do complex adaptive processes. They can take on information, process it, store it, change and adapt. Basically, if it can learn, it's a brain."

"Through behavioural modeling, we can discover how this applies to life. Low and behold, these different brains do different things."

What are the three brains and their functions?

The first of the three brains is the obvious one. It is the head brain, and the master of processes such as thinking, perception, and cognition. It recognises things, makes meaning of them, creates narratives and masters language. Head based language sounds like this: "I think", "I reckon", or "I understand".

The second is the heart. Ask a person where they feel an emotion, and their hand will land directly above their heart. Nobody gestures to their elbow. We know intrinsically that this is the place that processes deep emotion. What else is the domain of the heart brain? Here lie our values, along with the process of emoting, the process of valuing and the way we feel about relationships. Heart based language centres on "I feel" or on the expression of the deep emotions and values that lie in the heart brain.

The third is the gut. Here we find our core identity. What is me, what is not me? This is the domain of the gut brain. It is also responsible for safety and protection. Our gut is extremely important in upholding our immune system, but it also takes care of self-preservation, fear, anxiety, mobility and action. Gut based language says things like, "it takes guts" or, "let's do it."

Our three brains don't always align.

Have you ever heard someone, perhaps even yourself say, "My brain tells me one thing but my heart tells me another?" Or perhaps you've felt that gut instinct that told you something was off, even when your brain couldn't spot anything wrong. Oka explains the clash:

These three functions might not always be aligned on an issue. My head has a narrative, "I should... my rules are... my logic says... but my heart really wants to do something else. Still my gut says 'Uh, not safe.' " As far as we can tell, the information highway between the three brains is the vagus nerve. 70-80% of nerve relays go up, not down. That's why, when your gut and your heart are already in a reaction, it's hard to talk yourself out of it.

What prevents these three brains from working together? Some of it is simply that one or two of the brains override the other/s." Different people will have different leanings as to which of these three brains dominate us the most. "It is a neural network. The neural networks will grow the more you use them. Some people will have much more of an orientation towards, say, the head function. This leaning will show up in the Myers Briggs Type Indicators or other tests."

According to Oka, and his research partner Grant Soosilu, this is something we see in wisdom traditions, "It is more the norm than the exception for wisdom traditions to reference three forms of soul. It makes sense, because it is three different intelligences with three totally different functions." In yoga, these three intelligences are referred to as the head, heart and gut. In Christianity, we commonly hear talk of the body, soul and spirit. These are just two of many examples of three forms of intelligence. Yet too often, we ignore or fail to place enough importance on the 'brains' we don't understand.

How could we fail to understand the heart and gut brain? It could simply be because the language centres exist in our head brain, and not in the other two. Hence, we may fail to articulate the nagging gut instinct that tells us a situation is at odds with our sense of safety or identity. We may fail to listen to the heart and throw ourselves into something that we feel deeply wrong about. This clash can create stress.

Here, there is room for objection. "Yeah, emotions are processed in the limbic system, and that's what it looks like in the head if you only look at the head. Zoom back. Where are the signals coming from?" argues Oka. Again, the vagus nerve could be the common link, as a large percentage of its relays feed up. We could be taking our emotional cues from the heart and gut.

