

# The Social Brain And The Analytical Brain

One of my favourite researchers is Mathew Lieberman, Professor at UCLA's Department of Psychology, Psychiatry and Biobehavioral Sciences and also Director of their Social Cognitive Neuroscience Lab. He and his team have done some very cool research that helps to explain what's going on in our brains at an evolutionary level.

One of his experiments has proven that the brain has completely different systems for working on analytical problems and social problems. He calls these the 'analytical brain' and the 'social brain'. This in itself is a remarkable finding - more about that in another newsletter - but what's relevant to culture change is, once they had figured out these two different systems existed, they went about trying to understand how they work together, or not.

The experiment they conducted was a straightforward one - people were asked to lie in an MRI scanner and do simple maths problems (3+4 etc.) for one minute and then given one minute to rest and do nothing, another minute of maths, a minute of rest and so on. Predictably, the analytical part of their brains would light up when they were doing the maths problems and drop back to a baseline level in between.

What was particularly interesting is that no aspect of the experiment called on the use of the social part of their brains. There is no social activity involved in doing maths problems or in lying in a scanner resting. So they expected to see no activity in the social brain. But that's not what they found.

What they saw was that every time the analytical brain was allowed to rest, the social brain lit up. And it happened instantly, within 300 milliseconds of the end of each maths task. As soon as the next maths task began, the social brain returned to a baseline level and then immediately lit up again as soon as the maths task ended.

Two crucial things can be concluded from this. First, when one of these systems is activated the other is dampened. When we're engaged in an analytical task, our ability to do social tasks is diminished. When we're engaged in a social task, our ability to do analytical tasks is diminished. They work a bit like a see-saw (remember those?), when one is up, the other is down and vice versa. They each come at a cost to the other.

There are huge implications in this finding alone for the way we organise work, but the second and more relevant for culture change is this:

From an evolutionary standpoint, our brains have made the bet that the best thing to do whenever we have 'down time' is to get ready to do social thinking. This is hugely important. It's also the only thing in the human brain that works like this.

Humans are very deeply socially wired. This by itself is not new news, but the extent of it is. As is the extent to which it impacts organisational culture and culture change in particular. We crave social connection - belonging - above all else, and we get it by behaving our way to belonging.

The culture of your group is the rules of belonging. If you don't change the rules of belonging, you will never change your culture.



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