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## Your brain can't tell the difference between social and physical pain

One of my favourite researchers is Matthew Lieberman, Professor of Psychology, Psychiatry and Biobehavioral Sciences at UCLA.

A famous study of his illustrates that our brains interpret physical pain and social pain in exactly the same way.

In the study, the researchers asked a person, the subject, to play a simple video game with two other people they couldn't see. As it happens, they were actually playing against a computer, but they didn't know that. In the game, the three 'people' threw a virtual ball to each other. In the first, control round of the experiment, the subject was told they couldn't join in the ball throwing because their console's link to the game was temporarily unavailable, so they simply watched the other two people throw the ball backwards and forwards between them for a while.

In the second round, they were told their console's link had been fixed and they could join in. At first, the ball was being thrown equally between the three people, but soon the other two started ignoring the subject and began throwing it backwards and forwards between them again, making the subject feel excluded.

In the first round, whilst the subject was watching the identical throwing of the ball between the other two people that they had watched in the last part of the second round, there was no experience of feeling excluded because they believed that joining in was not an option. In the second round, they felt excluded because they believed the other two were ignoring them.

The subjects' brains were being scanned throughout the experiment and the researchers were able to compare how their brains were responding between round one (no exclusion) and round two (exclusion). In round one, the traditional physical pain centres of their brains did not light up. In round two they did.

Our brains interpret physical pain and social pain in exactly the same way. And more than that, the researchers then asked the subjects after the experiment to describe how excluded or rejected they felt in round two.

It turns out that the more the subject felt rejected, the more the pain centres of their brain lit up. In other words, they were experiencing the social pain of feeling excluded, and their brains were responding in exactly the same way as if they had been physically injured.

*Social exclusion hurts. Not metaphorically, literally.*

So when someone tells you their feelings have been 'hurt', they actually mean hurt. Not upset or concerned or sad, but literally hurt. Their brain can't tell the difference.

Why does this matter for organisational culture?

Because humans crave belonging above all else.

Some of Lieberman's other work is part of what has proven that Maslow's hierarchy of needs is wrong. The most basic need of human beings is not food, water and shelter. It's belonging. This may sound odd, but our brains are designed to help us survive above all else and thousands of years ago we couldn't survive unless we were a member of a group. It was being a member of a group that gave us access to food, water and shelter. This is true of infants too of course, even in our modern world.

*Our brains are hard-wired for belonging.*

If humans crave belonging above all else and social exclusion is interpreted by our brains in the same way as physical pain, then most of us will do anything we can to ensure we meet our need for belonging and avoid the pain of social exclusion. We'll figure out what the rules of belonging are in the group we join and start to comply with them, even if they seem odd to us or, in extreme cases, contrary to our own ethics and values.

That's what culture is. It's the rules of approval and belonging within a group. To change the culture of a group, you need to change the rules of approval and belonging in that group. Without that, the members of the group will not only comply with the old rules, they'll defend them from change because change is a threat to their own belonging.

It's not as simple as 'people don't like change'.

Social exclusion hurts. Not metaphorically, literally.

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