

Trusting your instincts leads you to the right answer

January 8 2007

A UCL (University College London) study has found that you are more likely to perform well if you do not think too hard and instead trust your instincts. The research, published online today in the journal *Current Biology*, shows that, in some cases, instinctive snap decisions are more reliable than decisions taken using higher-level cognitive processes.

Participants, who were asked to pick the odd one out on a screen covered in over 650 identical symbols, including one rotated version of the same symbol, actually performed better when they were given no time at all to linger on the symbols and so were forced to rely entirely on their subconscious.

Dr Li Zhaoping, of the UCL Department of Psychology, said: "This finding seems counter-intuitive. You would expect people to make more accurate decisions when given the time to look properly. Instead they performed better when given almost no time to think. The conscious or top-level function of the brain, when active, vetoes our initial subconscious decision – even when it is correct – leaving us unaware or distrustful of our instincts and at an immediate disadvantage. Falling back on our inbuilt, involuntary subconscious processes for certain tasks is actually more effective than using our higher-level cognitive functions."

The study shows an instance when our rational mind is more likely to perform worse than our subconscious – but the conscious mind still tends to veto the subconscious.

Ten participants were asked to locate the only back to front version of a repeated symbol on screen and were given between zero and 1.5 seconds from the moment their eyes had landed on the odd one out to scrutinize the image. Participants had to decide whether the odd one out was on the left or the right-hand side of the screen. The researchers found that participants scored better if they were given no scrutinizing time at all.

With only a tiny fraction of a second for scrutinizing the target, subjects performed with 95 per cent accuracy. With over a second to scrutinize the image, subjects were only 70 per cent accurate. With more than four seconds, accuracy was recovered.

In this test, the instinctive decisions were more likely to be correct because the subconscious brain recognises a rotated version of the same object as different from the original, whereas the conscious brain sees the two objects as identical. For the conscious brain, an apple is still an apple whether rotated or not. So while the lower-level cognitive process spots the rotated image as the odd one out, the higher-level function overrides that decision and dismisses the rotated object because it is the same as all the other symbols. When subjects were given the time to engage their higher-level functions, their decisions were therefore more likely to be wrong.

Dr Zhaoping said: "If our higher-level and lower-level cognitive processes are leading us to the same conclusions, there is no issue. Often though, our instincts and higher-level functions are in conflict and in this case our instincts are often silenced by our reasoning conscious mind. Participants would have improved their performance if they had been able to switch off their higher-level cognition by, for example, acting quickly."

Tracking participants' eye movements, the team controlled the time allotted to each individual's search for their target. The visual display

screen was switched off at various time intervals either before or after the subjects' eyes landed on the target. When the on-screen image was hidden immediately after the subjects' eyes had landed on the target, the subjects often believed they were just guessing where the odd one out was. They were unaware that their gazes had shifted to the target just before the image was hidden and their answers weren't guesswork at all.

Dr Zhaoping said: "Our eye movements are often involuntary. What seems like a random darting of the eye is often an essential subconscious scanning technique that allows us to pick out unique and distinctive features in a crowd – such as colour or orientation. Soon after our eyes have fixed on a target, the conscious or top-down part of cognition engages and examines whether the candidate really is the target or not. If the target is not distinctive enough in the 'eyes' of the conscious, failure of identification can occur."

Source: University College London

Citation: Trusting your instincts leads you to the right answer (2007, January 8) retrieved 9 April 2024 from <https://medicalxpress.com/news/2007-01-instincts.html>

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