'Gut feelings' help make more successful financial traders

September 19 2016

That was supposed to be going up, wasn't it? Credit: Rafael Matsunaga

Financial traders are better at reading their 'gut feelings' than the general population – and the better they are at this ability, the more successful they are as traders, according to new research led by the University of Cambridge.

'Gut feelings' – known technically as interoceptive sensations – are sensations that carry information to the brain from many tissues of the body, including the heart and lungs, as well as the gut. They can report anything from body temperature to breathlessness, racing heart, fullness from the gut, bladder and bowel, and they underpin states such as hunger, thirst, pain, and anxiety.

We are often not conscious – or at least barely aware – of this information, but it provides valuable inputs in risky decision making. High-risk choices are accompanied by rapid and subtle physiological changes that feed back to the brain, affecting our decisions, and steering us away from gambles that are likely to lead to loss and towards those that are likely to lead to profit. This can enable people to make important decisions even before they are able to articulate the reasons for their choices.

Traders and investors in the financial markets frequently talk of the importance of gut feelings for selecting profitable trades. To find out the extent to which this belief is correct, researchers from the Universities of Cambridge and Sussex in the UK and Queensland University of Technology in Australia compared the interoceptive abilities of financial traders against those of non-trader control subjects. Their results are published today in the journal *Scientific Reports*.

The researchers recruited 18 male traders from a hedge fund engaged in high frequency trading, which involves buying and selling futures contracts for only a short period of time – seconds or minutes, a few hours at the most. This form of trading requires an ability to assimilate large amounts of information flowing through news feeds, to rapidly recognize price patterns, and to make large and risky decisions with split-second timing. This niche of the financial markets is particularly unforgiving: while successful traders may earn in excess of £10 million per year, unprofitable ones do not survive for long.

The study took place during a particularly volatile period – the Eurozone crisis – so the performance of each trader reflected his ability to make money during periods of extreme uncertainty. The researchers measured individual differences in each trader's capacity to detect subtle changes in the physiological state of their bodies by means of two established heartbeat detection tasks. These tasks test how accurately a person, when at rest, can count their heartbeats. Each trader was given a score which, essentially, measured the percentage of right answers, and these scores were compared against data from 48 students at the University of Sussex.

The researchers found that traders performed significantly better at the heart rate detection tasks compared to the controls: the mean score for traders was 78.2, compared to 66.9 for the controls. Even within the group of traders, those who were better at the heart rate detection tasks also performed better at trading, generating greater profits.

Strikingly, an individual's interoceptive ability could be used to predict whether they would survive in the financial markets. The researchers plotted heartbeat detection scores against years of experience in the financial markets and found that a trader's heartbeat counting score predicted the number of years he had survived as a trader.

"Traders in the financial world often speak of the importance of gut feelings for choosing profitable trades – they select from a range of possible trades the one that just 'feels right'," says Dr John Coates, a former research fellow in neuroscience and finance at the University of Cambridge, who also used to run a trading desk on Wall Street. "Our findings suggest they're right – they manage to read real and valuable physiological trading signals, even if they are unaware they are doing so."

Although the results are consistent with recent studies showing that heartbeat detection skills predict more effective risk taking, the researchers caution that there may be other interpretations. For example, one study has found that heartbeat detection ability increases during stress, so it could be argued that heartbeat detection skills correlated with years of survival merely because experienced traders, taking larger risks, are subjected to greater stresses. The authors of the current study think this unlikely – in trading, as in many other professions, experienced and successful individuals, being more in control, are commonly less stressed than beginners.

The findings also appear to contradict the influential 'Efficient Markets Hypothesis' of economic theory, which argues that the market is random, meaning that no trait or skill of an investor or trader – not their IQ, education, nor training – can improve their performance, any more than these traits and skills could improve their performance at flipping coins.

"A large part of a trader's success and survival seems to be linked to their physiology. Such a finding has profound implications for how we understand financial markets," adds Dr Mark Gurnell from the Wellcome Trust-Medical Research Council Institute of Metabolic Science at the University of Cambridge.

"In economics and finance most models analyse conscious reasoning and are based on psychology," Dr Coates continues. "We're looking instead at risk takers' physiology – how good are they at sensing signals from their viscera? We should refocus on the body, or more exactly the interaction between body and brain. Medics find this obvious; economists don't."

More information: Narayanan Kandasamy et al. Interoceptive Ability Predicts Survival on a London Trading Floor, *Scientific Reports* (2016). DOI: 10.1038/srep32986

Provided by University of Cambridge