

# Yesterday's brain meets tomorrow's world

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Technology fans claim that hoverboards, jetpacks and teleportation units are just some of the everyday objects we will soon be taking for granted. Whilst we are not quite there yet, it is easy to overlook just how advanced our world has become over a short space of time. The challenge for our brains is evolving fast enough to keep pace. I suspect we are already playing neurological catch-up – if I am right, there are ramifications for the way we think about investing.

## Decision-making in a complex world

Complexity is becoming a way of life. Whether we are discussing artificial intelligence and nanotechnology, or the latest assistant-free iteration of the supermarket checkout, we don't have to look far to find examples of sophisticated systems that can bamboozle our brains. Just think about the recent proliferation of credit cards, retirement plans, insurance products and, of course, digital (or "robo") investing options and you can see how rapidly our financial world is evolving around us too. The problem is that we are expected to make rapid decisions amid this complexity using hardware that hasn't really changed for thousands of years.

Regular readers of Confidant will be more than familiar with our advice to not try to time the market and in particular to avoid panic-selling when markets take a dip. Sadly, even the most rational, level-headed investors often struggle to resist the urge to act on short-term fluctuations. We all want to believe that we make sound investing decisions based on a deliberate and systematic calculation of what economists call "maximised utility", but in reality, our emotional brain has often already beaten us to it. We can thank biology for that - brain imaging techniques developed over the past 15 years reveal that the structures in our brain that are responsible for emotions and instincts, engage in decision-making long before the more rational areas between our

ears are even aware that a decision is being taken. In this ongoing battle between our animal instincts and logical deliberation, the latter often doesn't get a look-in.

## The elephant and the rider

Psychologists like neural analogies to explain this struggle between the different parts of our brain. My personal favourite was first coined by Jonathan Haidt, who describes our brains as being akin to an elephant and its rider.

Our emotional brain structures are the elephant, and the rider is our prefrontal cortex - the parts typically identified with high-level deliberative processes such as problem-solving and planning. We'd like to think that the rider is in charge, tapping the elephant to move in the best direction. However, it turns out that it's our pachyderm-like limbic structures which govern many of our decisions.



There's a good reason why we are wired this way - throughout evolution, this mental set-up has stood us in good stead. The ability to make rapid, automatic decisions often meant survival in an environment where slow and conscious deliberation could have fatal consequences. The problem is that today, even when faced with very different challenges built on abstract financial concepts, such as pensions and investments, the elephant retains control despite the change of environment. For example, fear of loss (at one time, serious injury or even death) remains the single most influential emotion for the elephant. Its hold over us goes some way to explaining common investment pitfalls, such as being too

conservative when it comes to risk, or buying high and selling low.

This has led many psychologists and economists to conclude that our brains are faulty or irrational. My view is that our brain is perfectly adapted to yesterday's landscape, but has struggled to keep up with the pace of our peripheral advances.

## Taking back control

The good news is that understanding and accepting our neurological frailties is the starting point for making better decisions. We can then develop mental techniques that can counter our less helpful natural instincts.

One of the simplest ways to override reflex decision-making is to create a set of 'if-then' statements for key scenarios. These take the form of, 'If situation X occurs, then I will do Y'. For example, 'if I see my portfolio fall by X%, then I will not react until I have had time to do some proper research and seek advice'. This may seem patronising to a seasoned investor, however, I have met plenty of investment "experts" who now wish they had followed just such a system ahead of the results of the UK Referendum and the last set of US Elections. These 'if-then' plans work by removing the need to rely on the rational rider at a time when it's being overpowered by the emotional elephant. Instead of having to think in-the-moment, you outline a plan of action which you default to automatically. You don't need to take my word for it either - military personnel practice "if-then" routines designed to override their human instincts under maximum stress. For the rest of us, this simple system has been shown to be effective in all sorts of areas of life, whether our goal is to eat more fruit, get more exercise, improve our academic performance, or make better investment decisions. I would urge you to try it.

Paul is a consulting behavioural psychologist who helps organisations to create products and services that go with the grain of human decision making.

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