

WHAT'S YOUR BIAS?

THE SURPRISING SCIENCE OF
WHY WE VOTE THE WAY WE DO

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Tom Feilden, he asked Geraint Rees from University College London's Institute of Cognitive Neuroscience to investigate.

Rees initially carried out MRI scans on the brains of Conservative MP Alan Duncan and Labour MP Stephen Pound, and a sample of ninety young adults. He found that, surprisingly, the answer was yes: there were observable differences in the brains of those who identified as left or right wing. In fact, Rees could predict whether participants identified as liberal or conservative with around 70 per cent accuracy just by looking at the size and activity of two key parts of the brain: the amygdala and the anterior cingulate cortex (ACC).⁵

So, how do those areas of the brain function?

The amygdala, an almond-shaped part of the brain, has become quite well known in recent years. If you look online you will find people (a little misleadingly) calling it the 'lizard brain' because it seems to have developed very early in our evolution (other mammals have an amygdala too, and we think it has some similar functions in their brains). It's commonly associated with 'fear' but it's more complex than that -- it helps us process and remember emotions, as well as shaping our perception of threats. It's so fundamental to how we perceive threats that a relatively direct connection from the eyes to the amygdala allows it to identify a threat before the rest of

the brain has had a chance to even recognise what it's seeing.⁶

Brain scans have shown that both size and activity in the amygdala varies widely in different people.⁷ In a paper titled 'Red Brain, Blue Brain', a group of researchers led by Darren Schreiber of the University of Exeter wanted to look at how the brains of liberals and conservatives differed when presented with a risk-taking scenario: a simple gambling game in which they had to choose between a lower 'safe' pay-off and a higher 'risky' pay-off.⁸ They found that, while left-wing people and right-wing people didn't make different kinds of decisions, their brain activity was different: for those on the right, the amygdala was much more active. The conclusion was clear: how we deal with risk is closely related to how we respond to threat and conflict, and the greater activity in the amygdala shows that conservatives have a different cognitive process for thinking about risk, making them more sensitive to potential threats.

A similar discovery was made when observing physiological reactions. Our brains *and* our bodies show different responses, on average, depending on our political beliefs.

In 2008 a group of researchers led by Douglas R. Oxley at the University of Nebraska-Lincoln tested a number of people's 'galvanic skin responses' by using

electrodes to pick up changes in the electrical current on their skin (the same technology forms a key part of the polygraph used in lie-detector tests).⁹

When presented with something perceived as a threat, an involuntary response takes place in our bodies, driven by electrical signals in the nervous system initiated by parts of the brain (including the amygdala). Though everyone has these basic response patterns, our individual sensitivity to threats varies widely. Oxley wanted to know if those variations might be related to our political views.

After finding out whether a sample of people supported a range of more liberal or conservative policies, the team showed them a series of pictures, which included three threatening images: a very large spider on the face of a frightened person, a dazed individual with a bloody face and an open wound with maggots in it — images we can well imagine might provoke an involuntary response, especially when we're not expecting them. Oxley and his colleagues found that those who supported more conservative policies showed a higher galvanic skin response than those who supported liberal policies.

All of this seems to suggest that those on the right are more sensitive to threats. But, what of those on the left?

In 2012, Oxley's colleague John Hibbing replicated his findings on how liberals and conservatives responded

to threatening images.¹⁰ But he wanted to go a step further. His team showed people similar negative images — a spider on someone's face, an open wound with maggots on it and a crowd fighting with a man — but this time he also included three positive images: a happy child, a bowl of fruit and a cute rabbit.

The researchers found that conservatives reacted more strongly to the threatening images, as before. But they also found that liberals had a stronger physiological response to the *positive* images. So, when they saw the 'happy' pictures of the rabbit or the child, they had a stronger involuntary reaction than the conservatives did.

As well as measuring skin responses, the study also used eye-tracking software to see exactly how much attention subjects were giving to the positive or negative pictures. They showed both kinds of images at the same time, to see which the participants were most drawn to, and how long they looked at them for.

Given that those on the right had a stronger response to the threatening images, the researchers wanted to see if that meant they'd be more or less inclined to look at those images. What they found was that conservatives were more likely to focus on the negative stimuli, whereas — you guessed it — the liberals' attention was drawn to the positive.

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ries were put forward as a way of categorising our various traits – with some doubting that there was even such a thing as ‘personality’.

Psychologists came to recognise that people do have stable personality traits that can help explain how they respond in a range of different situations. Based on this, in the 1980s a psychologist called Lewis Goldberg coined the term ‘Big Five’ to describe the main ways in which our personality might differ, and this has become the most widely used and reliable academic tool for measuring personality.

The Big Five breaks personality down into five components (with the helpful acronym OCEAN):¹⁴

Openness to new experiences: original, imaginative, broad interests and curious (the opposite might be conventional or uncreative in outlook)

Conscientiousness: careful, thorough, diligent and self-controlled (the opposite might be disorganised, careless and impulsive)

Extraversion: sociable, fun-loving, self-assured, friendly and talkative (as opposed to quiet and reserved)

Agreeableness: empathetic, altruistic, trusting and warm

(as opposed to mistrustful, callous, uncooperative, stubborn and rude)

Neuroticism (which is sometimes given the alternative label ‘emotional stability’): worrying, self-conscious and temperamental (the opposite would be calm and emotionally stable)

Each person receives a low or high score in each category, and combined, these give an overall picture of their personality. You can try the test for yourself online.* This test is used widely by psychologists in a wide range of contexts, from developing new models for organisational management to trying to understand why we vote the way we do.

This might at first seem counter-intuitive, but when you think about it, it doesn’t seem unreasonable that our personality could have an effect on our political choices.

John Mayer, professor of psychology at the University of New Hampshire, sums this up very neatly: ‘Our votes are an expression not only of which candidates are best – the Republicans, Democrats, or those candidates of another party – but also of our own way of perceiving and thinking about the world and what is good or bad’

* For example, at the University of Cambridge’s Psychometric Centre: discovermyprofile.com/tag/Personality

about it. Our personal perceptions and thoughts in this area (and others) have been shaped over time within our personalities.¹⁵

What researchers have found is that – taking into account all the other factors such as class, race, geography and so on – there are a couple of striking differences in the personalities of people who are conservative or liberal. So much so, that if a person identifies as left or right wing we can make a reasonable guess about certain aspects of their personality.

The aspect in which liberals and conservatives differ the most is in their openness to new experiences. Not surprisingly, liberals rate themselves as higher on Openness than conservatives (this is true for both social and economic liberals).¹⁶ This means that they tend to respond more positively to change and uncertainty, which, in practice, might mean they are more likely to want to change what they perceive as social inequality, support minority rights and welfare, and be more tolerant of complexity.

After Openness, the second most reliable difference is in Conscientiousness, on which conservatives score more highly. This means they might be more diligent and careful (e.g. in appearance, or in their work), with greater respect for convention and tradition, perhaps being more likely to defend the status quo and support religious and

traditional values. Meanwhile, liberals can be a little disrespectful towards established norms and conventions – for example, a recent analysis of the social media site Twitter found that liberals were more likely to swear.¹⁷

After Openness and Conscientiousness, the results become less clear, but in some studies there is a trend for Neuroticism to be higher among those on the left, and for Extraversion to be higher on the right.

In the USA there is now a fairly well-established link showing that if a person is a strong liberal or conservative voter, they're likely to score more highly on either Openness or Conscientiousness, and researchers have found a similar trend in many other countries too. This was certainly the predominant pattern in a survey of the 2016 presidential election in the USA, which showed that, yes, those who scored highly on Openness were more likely to vote for Hillary Clinton, while those who scored highly on Conscientiousness were more likely to vote for Donald Trump. They also found that those with higher Neuroticism (low emotional stability) were more likely to vote for Clinton.¹⁸ That might be because people who score more highly on Neuroticism will value the safety net of social security, and would be more likely to vote for a party supporting that.

What all of this shows us is that personality and political choices are linked – and the relationship is



probabilistic. It may be more likely that a person who is more open to new experiences will have liberal viewpoints, but they could always adopt a conservative political ideology. It simply means that if you have a certain political outlook, you are *more likely* to have certain personality traits, moral intuitions and cognitive biases.

So, based on personality profile, I can make a guess as to someone's political leanings (and vice versa), and it's likely that I'd be right more often than I'm wrong.

Political campaigners are already wise to the possibilities. As more sources of data become available, the curious correlation between how we vote and our personality and life choices is becoming more and more apparent in everything from the way we use Twitter, to the posts we like on Facebook, to the books we order on Amazon (astoundingly, even when it comes to books about science, liberals and conservatives in the USA prefer different books:¹⁹ liberals tend to go for general science such as physics and astronomy, while conservatives favour more specific subjects such as medicine or geophysics; in fact the only topic of equal interest to both is dinosaurs!). This has led to fears that the tell-tale signs left by our digital footprints are increasingly being used by political campaigns to target voters based on their personality profile, as we will see in Chapter 7.

If research shows that there are clear differences between voters on the left and right, how does this affect our present politics?

First, a couple of caveats:

Of course the picture we've painted of left and right wing is a simplification – in reality things are always more complex. Libertarians in the USA, for example, seem to have a different kind of 'third' psychological profile. Social psychologist Jonathan Haidt has argued that libertarians don't fit into the moral profiles of either liberals or conservatives, emphasising, for example, the importance of individual liberty above all other moral concerns.²⁰

So, if you don't feel that the psychological profiles we've looked at here apply to you, that makes sense – there's definitely more to it.

It also doesn't mean that our political views are fixed. Our personality can change over our lifetime, and so too can our politics. People often say that we become more conservative as we age – 'Any man who is under thirty, and is not a liberal, has no heart; and any man who is over thirty, and is not a conservative, has no brains,' as Winston Churchill supposedly said.

But while this does appear to have been true for the baby boomer generation, it isn't necessarily true for all

particular). And, second, he found that they weren't right any more often than an informed layperson would have been.

This might or might not surprise you depending on your opinion of experts and pundits.

But if that's the case, how could they possibly continue to be trusted as predictors – or, more importantly, how could they continue to believe in their own ability to predict?

Well, it turns out that these 'experts' are just like the rest of us. They don't like being wrong – and they'll intuitively look for all the reasons why they were right, or half-right, or could have been right under different circumstances.

Rather than learning from their mistakes, Tetlock's experts used the same cognitive tricks that we all use: they tended to focus more on the times when they got it right, and were a lot more critical of examples that contradicted their predictions.

As we know, debates on social media can get very heated, each side seemingly shouting at the other across a chasm. We really don't like it when we're given evidence that challenges our deeply held beliefs. It's not just that we

disagree with it, we seem to actively dislike it. That brings us to our third way of thinking: motivated cognition.

It's a form of what psychologists call 'hot' cognition – a description that makes sense when you consider how heated people can get about certain subjects like politics, religion or morality. It's similar to confirmation bias, but it's not just a 'cognitive' bias. It is deeply rooted in our emotions, our values, our identity – we're 'motivated', for example, to maintain a positive self-image or a belief system.

If you've ever had a political debate with your family at Christmas you probably have all the evidence you need that people can get emotional when they are defending their position. But in 2016, neuroscientists Jonas Kaplan, Sarah Gimbel and Sam Harris, knowing that people often ignore information that conflicts with their deeply held beliefs, wanted to see what was going on in our brains when this happened and conducted a functional MRI imaging experiment – with some interesting results.¹¹

The study involved a group of liberals who said that they held their convictions deeply. While measuring the flow of blood in their brains, the researchers showed them a number of statements that confirmed their beliefs, such as 'Abortion should be legal' and 'Taxes on the wealthy should generally be increased'. The participants were

then also shown a series of strong counter-arguments and, afterwards, they were asked to rate how strongly they agreed with the original statements.

A clear difference in brain activity emerged; those people with more fixed views showed more activity (as measured by an increased blood flow) in areas of the brain associated with emotional processing compared to those who were more able to change their minds.

Given the deep-seated emotional nature of our responses to information that challenges our beliefs, this is perhaps one of the most potent elements of the cocktail. It certainly helps to explain why debates can get so heated – and it shows why we might not be quite as rational as we think we are when it comes to political arguments.

We are all affected by our biases in our everyday lives. If you want to see how they might affect your reasoning when it comes to politics, there are an increasing number of websites that enable you to run a version of Brandreth's experiment on yourself. They ask you which policies you support, without telling you which party they are associated with, and then combine your policy preferences to let you know which party's policy platform

you support the most. I'd be prepared to wager that if the party identified by the website doesn't match the party you support in real life, you'll experience some uncomfortable dissonance. I'd also wager that if they do match, you'll feel relieved, and maybe even a little elated, that you were 'right'.

The more we discover about these ways of thinking, the less clear the dividing line becomes between reason and emotion. In fact it might be that this dividing line is ill-conceived in the first place. Our decisions are often guided by how we feel, and in some instances those feelings help us make better choices. The idea that we would use only reason when making a decision has been described by Jonathan Haidt as a 'rational delusion', stating that 'emotions are information' in certain contexts.

So, the next time you get engaged in a political discussion, try to pay attention to what is going on in your own thoughts and emotions. You might notice your mind racing to find some evidence consistent with your own position, or you might catch yourself summarily dismissing a counter-argument, before you've even finished listening to the other person. You might also detect a little emotional turmoil when you hear an argument that is actually quite interesting, but that doesn't support your views.

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