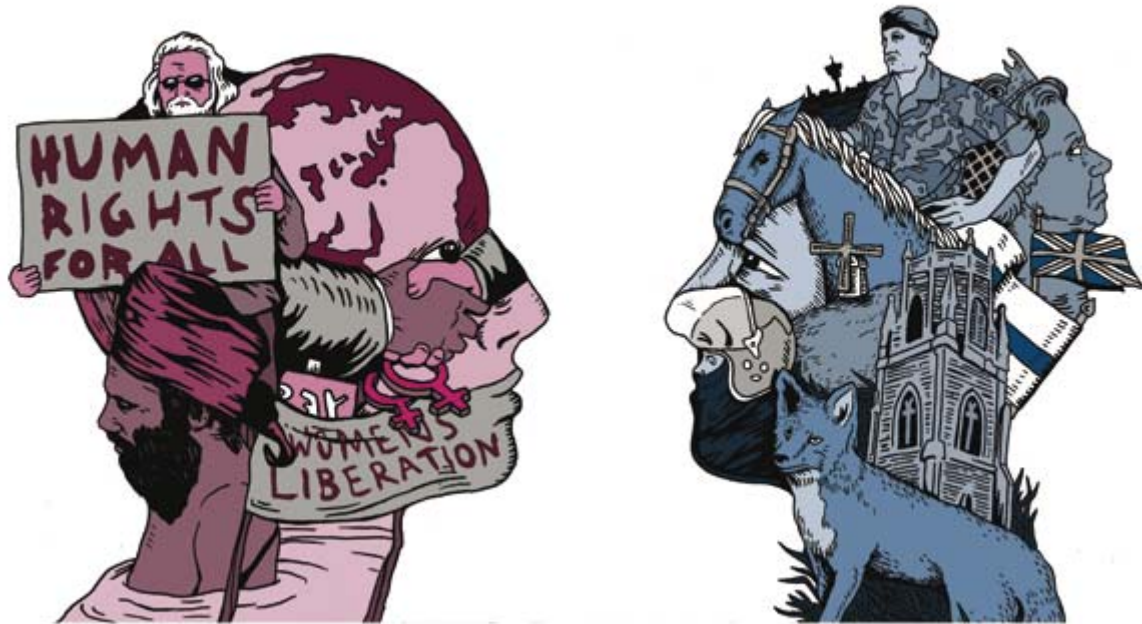


Left brain, right brain

Matthew Taylor- 23rd September 2009

Brain and behaviour research is increasingly being incorporated into political and policy debate in Britain. It is forcing both left and right to re-examine old assumptions



As a schoolboy socialist in a 1970s grammar school, the first political arguments I had were about human nature. My idea of the good society rested on a view of people as collaborative and benign, qualities hidden by the depredations of “the system.”

Working-class Tory mates mocked my naivety. To them we were self-interested. Some succeeded by their efforts, others failed or cheated and would change only if incentivised or compelled.

Yet for most of the 20 years that I have been involved in politics—as a Labour party activist, think-tank director and government adviser under Tony Blair—debates about human nature have been restricted to criminality and other social pathologies, as if only bad people failed to conform to the behavioural model of modern economics. I have never fully bought the idea that people are merely self-interested, rational actors. But during my time in Downing Street, whether we were addressing business regulation or competition in the NHS, the model of Homo economicus seemed to serve well enough: offer people choice and they will act in their own interest and in so doing will make the system work better for everyone. It is not a complete view of human action but it was a

useful shortcut, and it had become the prevailing view of most policymakers in the US and Britain.

Today, human nature is back. Political debate is questioning again what shapes and motivates us, who we are as social animals and what we could be. Lying behind this is not just a faltering neoliberal project, but also 30 years of research on human behaviour and the neurological processes that shape it. It can be politically unsettling: some findings seems to undermine important assumptions on both right and left. But while David Cameron has claimed aspects of behavioural economics and neuroscience for his modernising project, these insights can inspire progressives on both sides of politics, producing a new synthesis more nuanced and more solidly based than previous attempts to move beyond left and right.

In truth, virtually no one who studies the brain or behaviour, or philosophises about the mind, accepts the idea of a disembodied rational self inside our heads making all our decisions on the basis of self-interest. But whatever its problems, its advocates could until recently argue that it was the best available model. Their assumptions underpinned the free-market philosophy that brought decades of growth. But, as we struggle slowly out of a global recession, it has been behavioural economists such as Yale professor Robert Shiller who have shed light on our predicament. Shiller argues that our brains are susceptible to undue optimism and risk-taking when things are going well, and excessive pessimism and caution when they are not. Seemingly self-interested calculations—to jump into a booming housing market, for instance—are too often driven by emotion and a hard-wired tendency towards mimicry: we see others doing well, it makes us anxious that we are missing out and we copy them. The reverse happens during recessions, when we become overly cautious.

Such arguments draw on the work of Nobel prize-winning economists Daniel Kahneman and Amos Tversky. In the late 1970s they developed “prospect theory” to explain how people behave when dealing with risk and uncertainty. Of particular interest were findings about what economists call our “discount rate”—the fact that we value owning something today much more than a larger quantity of the same thing in the future. Developed in academia over the past three decades, such ideas went public with the publication of Richard Thaler and Cass Sunstein’s 2008 book *Nudge*. Compared with mainstream, mathematically-based economics, behavioural economics is accessible, drawing on social and evolutionary psychology, sociology and anthropology as well as neuroscience. All of this has helped neuroscience take the place of theoretical physics as the field of science most fascinating to the amateur—books such as Malcolm Gladwell’s breezy summary *Blink* are bestsellers. Such research has practical applications too, for instance in the “positive psychology” movement. Begun about a decade ago by psychologist Martin Seligman, this asked why clinical psychology concentrated on mental illness rather than happiness. Flowing from Seligman’s work, experiments using methods similar to those used in cognitive behavioural therapy are now trying to “teach” happiness in schools in the northeast of England. Meanwhile, brain-imaging research showing that those who meditate have enlargement in brain areas associated with feelings of wellbeing, has helped meditation shed its associations with mysticism.

Why some people care more than others

Brain and behaviour research is reframing political debates, too. Behavioural economics has been embraced by the British right in particular. Margaret Thatcher famously backed the neoclassical model, yet it seems that David Cameron wants to refashion the Tories' whole approach to regulation based on the insights of Nudge. On the left, the same is true for what can be called "pro-social" behaviour: caring about the welfare of others. In government, Labour has become increasingly preoccupied with the way people behave. This reflects public concern over greater social diversity and the decline of deference. It also relates to the cost to public services of our unhealthy and environmentally damaging habits. A decade of policy disappointments has taught politicians that initiatives will fail if people are unwilling to engage responsibly. But why are some people more inclined to be pro-social than others?

The answer is that people who feel supported are more likely to be socially benign. This was demonstrated in a recent study by anthropologist David Sloan Wilson, which examined the citizens of Binghamton in upstate New York. Addressed envelopes were dropped in random streets. Those areas in which people were most active in delivering them to the right door were deemed the most "pro-social."

These neighbourhoods were distinguished not by their income or physical environment but by whether residents themselves felt they were benefitting from multiple sources of social support. Our brains pick up subconscious signals from those places where receiving and giving social support is the norm. Evolutionary psychologists have explained our capacity for altruism to strangers by claiming it must play a role in helping humans compete. But this view was recently challenged by anthropologist Sarah Blaffer Hrdy, who argues that human survival and evolution owe much to the fact that, unlike most other species, adults can bond with and nurture infants who are not their own. Whatever its origins, our evolutionary predisposition for altruism needs to be reinforced by the right social clues.

Surely none of this is surprising? We don't need evolutionary psychology, game theory and neuroscience to tell us that secure people are more generous, or that groups develop their own norms. At the same time, there seems to be a tension between behavioural economists endlessly pointing out the inadequacy of our irrational habits, and neuroscience research lauding our finely-tuned social brains. But this apparent contradiction is partly explained by the difference between biological time, which is slow and incremental, and historical time, which accelerates in leaps. The brains that evolved to perform hunter-gatherer tasks for the first 180,000 years of Homo sapiens' existence have, in the last few hundred, been confronted with a world that is changing ever more quickly. Our brains have not always adapted well to modern society. Consider two fast-growing social problems: obesity and loneliness. Obesity levels show how hard we find it to adjust to abundance, while reports of loneliness reveal how humans, as animals who intrinsically crave connectedness, struggle with the atomism of modern life.

Moreover, many of our most common behaviours are more automatic than we assume and emerge from the non-conscious brain. Psychologist Benjamin Libet demonstrated in the 1970s that our awareness of a decision to act—for example to reach out and pick up a glass—takes place later than an observable electrical change in the brain associated with that act. In other words, the unconscious brain "decides" to act before our conscious mind confirms the action. One way to understand this is that the brain carries

messages from the highly sophisticated and long-evolved hard wiring of our non-conscious brain (interacting automatically with the rest of our body and the external world) to the much less powerful and much more recently evolved neocortex, the part where conscious thought happens. Even social interaction is largely dependent on non-verbal communication, as our brains automatically process social signals from those around us. As a result, the intuition that what we call the “self” polices the boundary between us and the world is brought into question.

This has big implications. For example, if we want to live an ethical life we do not have to pore over self-help books, but instead choose the social context that is most likely to prompt us to automatic altruism. Blinkered by the idea of humans as entirely driven by self-interest, we believe that altruistic acts must require conscious effort, perhaps as a result of exhortation from leaders. But if we are living balanced lives and enjoy mutual trust with people, behaving well comes naturally.

The social democratic brain

Much of this research makes good reading for social democrats. By highlighting our psychological frailties and the way these contribute to market epidemics, behavioural economics makes a powerful case for regulation, paternalism and measures to promote feelings of security. Nor is this the only encouragement for the traditional left. Although taking social exclusion seriously, Tony Blair’s new Labour distanced itself from the image of “do-gooder” progressives willing to excuse bad conduct on the grounds of social background. But much of this new research indicates that the environment has a much more direct impact on our mental functioning than was previously thought. The neuroscientist Elizabeth Gould overturned much conventional wisdom by showing that brains can generate new neurons, a process called neurogenesis. Her research with monkeys showed those who had suffered stress or a lack of stimulation had lower levels of neurogenesis. The impact of nurturing in early years is not simply on our attitudes—which we might be expected to overcome—but on the physical capacity of our brains to develop. Gould’s work has been used to make a case for early intervention in deprived and dysfunctional families. Psychologist Walter Mischel tested four year olds on their ability to resist eating a marshmallow, and showed that childhood inability to defer gratification predicted low achievement and antisocial behaviour well into adult life.

It turns out that messages which cause emotional disturbance impair our reasoning ability; this provides a physiological basis for the negative effects of labelling and stereotyping. Claude Steele, a professor of psychology, gave a group of his students a test that he said would measure their innate intellectual ability. White students performed better than black students. But when Steele gave a different group the same test, but stressed that it was a meaningless practice exam, the scores of white and black students were virtually identical. Similarly, women will do less well in a maths test if they are told it measures “cognitive differences between the genders.”

More examples of how our abilities are affected by subtle, subconscious changes in our emotional state are turning up all the time. A recent study from the University of Florida showed students had only to observe their teacher behaving rudely for this to make them not only less creative in answers to a subsequent hypothetical dilemma, but also more likely to suggest violent solutions. This research provides support for the “situationist” conclusion of psychologist Philip Zimbardo’s Stanford prison experiment,

in which students immersed in a sadistic culture became sadistic themselves within days. Zimbardo subsequently gave evidence in defence of soldiers accused of cruelty in Abu Ghraib, summarising his argument neatly as “it’s not the rotten apple it’s the rotten barrel.”

This is not to deny the importance of choosing to act responsibly, nor to argue that moral exhortation is futile. But susceptibility to social influence is hard-wired in us and not simply a characteristic of those lacking willpower. It may not be as catchy as the original slogan, but “tough on crime, even tougher on the causes of crime” is where the evidence points.

One further finding strengthens traditional centre-left arguments for a paternalistic state pursuing social equality. Critics of unbridled consumerism such as Amitai Etzioni (see Prospect, September 2009) are supported by social psychologists showing how bad we are at predicting what will make us happy—or even recalling accurately what has done so in the past. This in turn is linked to the breakdown in rich societies between affluence and happiness and our problem with coping with abundance. Richard Wilkinson and Kate Pickett’s book *The Spirit Level* (Allen Lane) has been praised by politicians of both left and right for demonstrating the link between social pathologies, such as mental illness and substance abuse, and social inequality. One cause may lie in more acute levels of status anxiety in unequal societies; Elizabeth Gould found threats to group status impaired neurogenesis in monkeys, which in turn reduced mental capacity and resilience. Inequality, it seems, really does do your head in.

The conservative brain

But new insights into how our brains work also offer support to Conservative thought. In a recent essay (Prospect, May 2009) David Willetts admitted that the Tories had been wrong to dismiss the importance of inequality on social cohesion and individual wellbeing. Willetts has also praised the work of economic historian Avner Offer. In his book *The Challenge of Affluence* (OUP), Offer sums up his thesis in the first line: “Affluence breeds impatience, and impatience undermines wellbeing.” He uses concepts from behavioural economics to explain why we fail to make the right decisions for the long term. The idea of Offer’s which has proven most attractive to Conservatives is the concept of “commitment devices.”

These are the social institutions that have developed to protect us from our psychological frailties, encouraging us to act long term and be socially responsible. These devices include the family, the church and civic organisations. As we become richer, we mistakenly think we do not need them.

This idea that we dismantle long-established ways of doing things at our peril reinforces a belief central to pre-Thatcherite conservatism: that society has evolved to reflect a natural order, which we should protect from social engineers. Progressive Conservative thinker Phillip Blond describes how social institutions and cultural taboos are ways in which “generations hand down... vital tacit knowledge about human nature.”

The balancing act for the Cameron project is wanting to appear modern in social attitudes and know-how, while reasserting a Conservative concern for civic virtue and the traditions and institutions which underpin it. Some of the ideas in *Nudge* offer ways

out of this conundrum, such as “save tomorrow.” People know they should save for retirement but, due to inertia and an aversion to loss, often do not. The idea of “save tomorrow” is to ask them to sign up now to make bigger pension contributions next year. The fact that the financial sacrifice is in the future means people will sign up; inertia prevents them changing it later. The modernising part of this policy is that people are free to make choices; the paternalism is justified on the grounds that without being “nudged,” our mental predispositions will stop us doing what is in our own interests. But while this pragmatic approach to regulation is to be welcomed, the wider tension between modernisation and social conservatism has not disappeared. It can be seen in the muddled populism of the “broken Britain” critique; the long list of things that are allegedly broken is as yet unmatched by an account of what can be fixed and how.

Social conservatives may also draw comfort from evidence that morality itself has a neurological basis. The work of evolutionary psychologist Marc Hauser appears to show that humans, whatever their background, are hard-wired to develop certain moral distinctions. It seems we don’t have to rely on political philosophers to tell us what is fair; we have an innate ethical framework ready to be applied to dilemmas. While Hauser’s work suggests that we have a strongly developed instinct for fairness, it also implies that trying to change people’s deep-seated ideas of what is just and to whom they owe loyalty—for example, by teaching multiculturalism—is futile. As Hauser puts it: “Policy wonks and politicians should listen more closely to our intuitions and write policy that effectively takes into account the moral voice of our species.”

An obvious problem with this is that our norms can change dramatically. Thirty years ago, most people in Britain thought that homosexuality was a sign of sickness or depravity. Not so today. If emotions such as moral disgust are hard-wired, then how are we capable of such big shifts in attitudes? Evidence from social-capital theorist Robert Putnam suggests that ethnically diverse places often have lower levels of trust and co-operation. The explanation for this may lie less in base prejudice and more in a deeper evolutionary predisposition to be cautious of outsiders. But, just as the revolution in attitudes to sexuality occurred when gays and lesbians came out to their loved ones, bonds of kinship and processes of reciprocity can break through barriers of neighbourhood segregation. Such examples argue against neurological determinism, but they also suggest that it is sensible for politicians to work with the constraints of our mental predispositions.

Research on brains and behaviour doesn’t tell us what we should do, but by revealing how social arrangements have been moulded by human nature, it encourages us to respect the tacit wisdom of established norms and be sensitive to the damage that can be done in the name of modernisation.

Thinking beyond left and right

New ideas about human nature can contribute to a more substantive meeting of minds between left and right. Thoughtful Conservatives are once again recognising the importance of social context, inequality and the limits to market rationality. Labour thinkers can use the research to make the case for collective action and social justice, but they may also become more cautious about the capacity of the central state to empower communities, and more interested in the role of social norms and civic institutions. At the heart of a previous attempt to transcend the left-right divide,

Anthony Giddens's third way, lay the concept of reflexivity. This is the idea that modern citizens do not see themselves as objects of impersonal religious, national or class forces, but as the authors of their own lives. Giddens talked about moving from class politics to a "life politics," concerned with individual self-actualisation. This would help citizens reconcile their life stories with the social forces around them. But in the absence of the binds of tradition and deference, Giddens thought that we needed a new democratic discourse and new institutions and forms of solidarity to replace those which have been lost.

But despite constitutional reform, the expensive renewal of public services and even experiments such as citizens' juries, Labour has failed to build such a new democratic ethos in 12 years of government. New Labour claimed to have jettisoned the old collectivism of class and tradition, but it has in turn failed to build new forms of collective action, or even to make a case for them. Lacking a substantive critique of individualism, Labour's appeal to people to engage in collective decision-making seemed pious and hollow. While listening to the neoliberal critics of collective action, new Labour portrayed localist and social conservative concerns about top-down modernisation as irrelevant or reactionary. Yet the new research validates the emphasis in these accounts on the need to respect the practices and meanings through which people have come to live their lives, and to recognise how difficult it may be to adapt to aspects of modernity. A symbol of Labour's confusion is that it has been uncomfortable with the collectivist idea of a public-service ethos, yet willing to believe the central state can successfully guide human affairs.

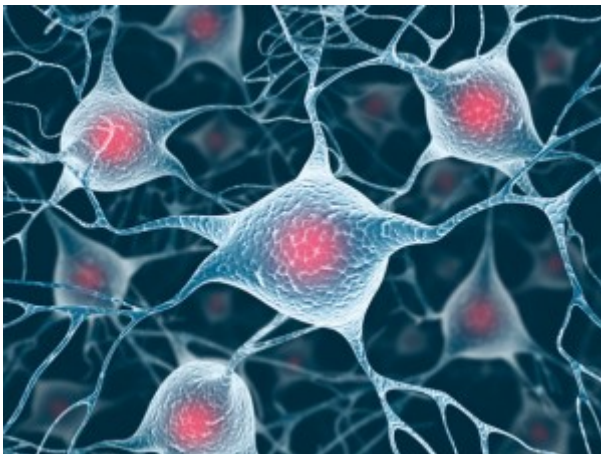
Co-operation and engagement are not things we merely ought to do. They are necessary for us to find our way in the modern world using brains that evolved before the invention of the wheel. We became social animals by living in closed homogenous communities, with deeply respected and slowly evolving bodies of knowledge and culture. Today we are living in more diverse communities, in a fast-changing, globalised knowledge economy. This moment has been characterised as the teenage years of the enlightenment project: a period of creativity, change, self indulgence and some danger. But we can move beyond this with the help of a "progressive humanism," which accepts the flaws in ourselves, understands our mental frailties and acknowledges the social nature of the brain. Such an approach would recognise that the way norms and social institutions have evolved is often a guide to the limits and possibilities of human nature. It would be a politics intolerant of the injustices and deprivations that sap our capability, but modest about the ability of any agency to impose solutions that don't combine the push of reform with the pull of social meanings and connections. Its adherents would be enthusiastic collectivists but sceptical statist.

This may all sound very abstract but emerging insights into human behaviour can offer pointers for the redesign of public institutions. Take schools policy: students spend about 20 per cent of their waking hours in school. Research tells us that what students achieve will be heavily influenced by their emotional propensity to achieve, which is in turn a reflection of the messages they pick up in the other 80 per cent of their lives. Teachers working in communities that lack confidence about learning are like factory workers who control a fifth of the production line but are expected to churn out a quality product. Schools end up teaching to the test (a process that is both boring and stressful) while having to develop strategies to engage unreceptive pupils. What they should do is seek to inculcate a culture of learning in the wider community. It is a

slower, messier, more collaborative business than simply intensifying what happens in the classroom. But there are many examples of schools addressing deep-seated barriers to learning among their pupils by engaging with parents and community leaders. This idea takes social context and disadvantage seriously but, in an echo of Tory plans to make it easier for parents to control schools, recognises that schools should feel part of the community rather than a tentacle of the state. As the public sector enters a period of austerity, we need to remodel services around the goal of building individual and collective capacity. This means drawing on what we now understand about the best circumstances for the emergence of feelings of connectivity, self control and altruism.

Altruism makes us happy. Supportive communities create better people. Inequality and stigma rob us of potential. Good guidance helps us make wise decisions for the long term. All these seem commonsense conclusions, all are now based on evidence. They break the oppressive grip of Homo economicus on the right and the alluring but dangerous myth of human perfectibility on the left. Instead, we are left with the mission of progressive humanism; to develop practical utopias based on the good enough people we really are.

THE NEURONS THAT HELP MAKE US NICE



Every human has billions of neurons: brain cells that help transmit information through electrochemical signals. But a specific type, known as “mirror” neurons, are thought to play an important part in encouraging good behaviour. If, for example, you smile at someone in the street, certain neurons will fire off in your brain as a result. But if I see you smiling at me, the same neurons fire in my brain too, even though I’m not smiling at anyone. These mirror neurons, so the theory goes, help our brains understand the actions of other people and mean that certain neural pathways in our brains are gradually strengthened by seeing acts of kindness. Neuroscientist VS Ramachandran calls them “empathy” neurons, breaking down barriers in the brain between ourselves and others.

Prospect Magazine: <http://www.prospectmagazine.co.uk/2009/09/left-brain-right-brain/>