

CAN WE CHANGE HUMAN NATURE?

By Rod Matthews

What best describes 'human nature'?

In order to *describe* human nature, it is necessary to first be able to *define* it.

Definition 1: General conversation

The first definition is the general conversation definition. When someone refers to 'human nature' in a conversation it is usually to describe some form of behaviour that is seen to be common to all humans. In *The Naked Ape*,ⁱ Desmond Morris divides his chapters into the headings of sex, rearing, exploration, fighting, feeding and comfort. In a later book, *The Human Zoo*,ⁱⁱ Morris adds the chapters of tribes, status, in-groups/out-groups, imprinting and stimulus. Perhaps this is a good place to start – with a list of human behaviours that are common to us all. (Another worthy reference is *Human Universals* by Donald E. Brown.ⁱⁱⁱ)

Interestingly, the term 'human nature' would not be used in general conversation to describe uncommon behaviour, for example torture, pillage or rape, or, at the other end of the scale, breaking sporting records, composing as many melodies as Mozart or creating the kind of the work Leonardo da Vinci was responsible for. This would be considered uncommon human behaviour and therefore outside the general conversation definition of 'human nature'.

So it could be concluded that the conversational definition of 'human nature' is one that is around the behaviours that are shared among all humans across culture, and yet are restricted to a sort of normal or average behaviour.

Definition 2: It's academic

The term 'human nature' can also be defined as the full range of needs, values and beliefs, thoughts, feelings and behaviours that are exhibited by the human species. As we work our way through this list, from needs to behaviours, we pass through different degrees of variant behaviours.

Needs: While it is easy to say that it is human nature to satisfy physiological needs, it is also human nature to satisfy needs that are driven unconsciously by evolution. These could include the need:

- to pass on our genes
- to increase our status
- for shelter
- for social contact
- to create/leave a legacy.

These needs are well described in a number of books on evolutionary psychology, such as *The Moral Animal* by Robert Wright,^{iv} *Hardwired Humans* by Andrew O'Keefe,^v and *Darwin's Dangerous Idea* by Dr Daniel Dennett.^{vi}

The Epicurean school of Greek philosophy argued well that much of human nature was driven by our need to avoid pain and move towards pleasure. So our human nature is, in part, driven by needs placed upon us by evolution.

The behaviours that result from needs are, by and large, less malleable than others. It is hard to imagine a time when we will not need to eat, reproduce or care for our young. While it is possible to overcome even the need for survival, it would be generally agreed that it is more difficult than overcoming the need for a chocolate biscuit.

Values and beliefs: Values and beliefs are often the product of unconscious messages from the environment. For example, in his book *The Geography of Time*,^{vii} Robert Levine shares his experiments and research that suggest a pattern of behaviour based on location. The closer to the equator you live, the slower you will walk and the less likely you are to be aware of the passing of time, while people in temperate zones are more likely to be aware of the passing of time and they are generally more productive. This is a view echoed in Jared Diamond's *Guns, Germs and Steel*.^{viii} So perhaps the protestant work ethic could not have come from a religion based in the Bahamas.

In his book *Free Will*,^{ix} Sam Harris takes this idea – that the context in which we find ourselves has a massive effect on our decisions – even further. He asks: In a cause and effect universe, where is our free will in doing what we want, when what we want is the product of countless prior causes that one cannot inspect and therefore cannot select when making a decision? (I find this both compelling and frightening.)

Harris is quick to add that this is not to be confused with the idea that our choice doesn't matter ... it is just that we cannot consciously decide. (This is doing my head in.)

I'm still digesting Sam Harris' argument and how he can say that we do not have free will and yet we can change ... and so I will have to get back to you on this one.

Thoughts, feelings and behaviours: These are, perhaps, more malleable to the environment and are often referred to as 'personality'. While it is easy to identify specific human needs, human personality is a little more tricky as the variety of thoughts, feelings and behaviours and their interactions are seemingly countless. Wyatt Woodsmall, in his books *Strategies*^x and *Metaprograms*,^{xi} lists hundreds of filters that we use when thinking, feeling and behaving. Dr Robert Winston, in a TV series called *The Human Mind*,^{xii} casually suggests that there are over 2000 filters to human behaviours. It is no doubt that with this number we can achieve great complexity.

Like the software in a computer, if you combine enough 0s and 1s, you end up with software complex enough to store and retrieve all of human knowledge. Maybe life is binary!

And so to summarise, perhaps human nature could be crudely but neatly represented as a gradual gradient of shifting colours, as the following diagram^{xiii} illustrates:

Environmental

Genetic



Behaviours <-> Thoughts/feelings <-> Values/beliefs <-> Needs

To what degree can human nature be changed by the environment?

Can we change?

The question ‘Is human nature capable of change?’ is one of those ‘guilty until proven innocent’ arguments. We only need to see evidence of change to know that it is possible.

There are many examples of human nature that we could identify as not having changed, and the listings provided by Desmond Morris and Donald E. Brown would be good places to start. But the fact that these have not changed over millennia could be evidence that they serve us well and not that they cannot be changed. Fortunately, evidence that we are capable of change is quite easy to find.

At the biological level, Dr Norman Doidge (in his book *The Brain that Changes Itself*^{xiv}) examines many cases of people being able to overcome severe disabilities through practise, persistence and the reprogramming of their neural circuitry.

At the chemical level, *The Talent Code* by Daniel Coyle^{xv} explains the role of myelin in creating new habits. This is the chemical that the brain uses to ‘insulate’ a neural pathway as we practise a new skill. If we overlay this with the work of Dr Daniel Siegel,^{xvi} who discusses the studies that have shown that aerobic activity combined with meditation leads to the development of new neurons, we can see that change is possible at the chemical/biological level.

In his book *Redirect: The Surprising New Science of Psychological Change*,^{xvii} Timothy D. Wilson lists many examples of recidivism being dramatically reduced by the introduction of some well-targeted and often counter-intuitive strategies. He offers sufficient evidence that behavioural and cognitive change are possible.

Changing groups

Evidence that we are able to change the behaviour of groups exists in the areas of sociology, economics and history.

To see how values and beliefs can be (and have been) shifted over time, consider the following. If we travelled back to ancient Greece, we would see that the most honoured members of society were its fighting men; it was considered a disgrace for a fighting man to be seen in the market or even to know how to count. But travel forward to modern day United States and the most honoured males are its entrepreneurs. It would be considered a disgrace for these men to not know how to count or how the market works. Fortunately, top white collar criminals like Jeffrey Skilling, Bernard Ebbers and Bernie Madoff didn’t try the ‘Yeah but if we were in Greece ...’ defence.

As well as this, there are a plethora of books that document how people’s behaviours in groups have changed. These include:

In sociology:

- *Influence – The Psychology of Persuasion* by Robert Cialdini^{xviii}
- *Nudge: Improving Decisions About Health, Wealth, and Happiness* by Richard Thaler and Cass Sunstein^{xix}
- *The Tipping Point* by Malcolm Gladwell^{xx}
- *Switch: How to Change Things When Change Is Hard* by Chip Heath and Dan Heath^{xxi}

- *Spiral Dynamics: Mastering Values, Leadership and Change* by Don Edward Beck and Christopher Cowan^{xxiii}

In economics:

- *The Black Swan* by Nassim Nicholas Taleb^{xxiii}
- *The Undercover Economist* by Tim Harford^{xxiv}
- *Freakonomics* by Steven D. Levitt and Stephen J. Dubner^{xxv}

In history:

- *The Upside of Down – Catastrophe, Creativity and the Renewal of Civilisation* by Thomas Homer Dixon^{xxvi}
- *A Short History of Progress* by Ronald Wright^{xxvii}
- *The Rational Optimist – How Prosperity Evolves* by Matt Ridley^{xxviii}

The complex thing is that many of these books would point to different levers to use when changing human nature. Perhaps there is a project in building a list of ‘The Tools of Change’. Actually, that’s not bad ...

The speed of change

In order to measure change you need either a constant (such as centimetres, grams, litres, days or weeks) or a contrast (before and after). Sometimes change is difficult to observe because:

- it can be glacially slow and the changes take generations to become evident
- it is almost instantaneous and so takes us by surprise
- we have difficulty finding an appropriate measure.

Glacial change: Darwin suggests that no animal’s nature is fixed because nature is a process. So if we applied enough evolutionary pressure for a long enough time, we could make a leopard change its spots!

Instant change: One of the myths of change is that it takes time, but this is not always the case. Some change is instantaneous. For example the Prime Minister of Samoa, Tuilaepa Sailele Malielegaoi, made two decisions to change his country, and both changes happened in an instant.

- At 5.59am on 8 September 2009, people in Samoa drove on the right-hand side of the road. At 6am they drove on the left.
- On 29 December 2011, citizens of Samoa went to bed; the following morning when they woke up it was 31 December, as the international dateline had been moved.

So perhaps the saying ‘Give me a lever long enough ...’ can be seen in action here.

Other examples of instant change are very well illustrated in the book *Flipnosis – The Art of Split-Second Persuasion* by Kevin Dutton.^{xxix} Dutton examines situations where change has occurred within one sentence or one encounter. He analyses both the ethical and the dodgy, and in the process identifies some clear principles that seem to operate around instant change.

Examples of change in popular culture

The Biggest Loser: We all know the format – take people who have a compelling direction (I don't live like this); change their context (take them away from home, family and friends for months); and install new behaviours (diet and exercise).

Cults: These have a compelling message (the world is doomed but if you come with us you will be safe); they appeal to people who have an increased dependency on others (they've just had a downgrade in status, a loss of friends or romance, ideals or dreams); and they change their context (no contact with family or past friends – instead, live on our property, miles from anywhere).

If we accept the definition of human nature to include the needs, values, beliefs, thoughts, feelings and behaviours of humans, then we can see evidence of change in all of these things by looking into anthropology, evolution, history, economics, psychology, biology and chemistry.

Leading thinking suggests that our genes predispose but do not guarantee us a path in life. Our genes respond and react to input from our environment, and over a period of time this loop between genes and environment evolve the species.

We can change but, as is the case with many things, guiding or controlling this change is a little more complex than we might think.

In *Redirect: The Surprising New Science of Psychological Change*,^{xxx} Timothy D. Wilson shows how the intuitive approach to dealing with post-traumatic stress is to have sufferers talk through their experiences. However, evidence suggests that this does not reduce the stress – in fact, the opposite happens. By constantly reliving the stressful event, patients strengthen the neural pathways that are used to recall the incident, making it easier to recall and often leading to embellished memories of events.

In *Stumbling on Happiness* by Daniel Gilbert,^{xxxi} we learn how the apparent life-changing event of winning a large sum of money, or becoming a quadriplegic, does not change the majority of people's subjective happiness levels.

As well as these, there are a growing number of books that present a similar argument to *Outliers: The Story of Success* by Malcolm Gladwell.^{xxxii} The suggestion here is that we are oversold the 'genetic talent' story and undersold the stories of persistence, practice and opportunity.

So while it is still difficult with our level of expertise to manage change in a highly predictable way, we do know that the change recipe includes a healthy dose of shaping the environment in which the protagonist needs to exhibit the new values, beliefs, thoughts, feelings and/or behaviours. The levers we need to pull to shape the environment include:

- opportunity
- reward and punishment
- practice
- support for assistance

- suggestion from other environmental factors (including written messages)
- surrounding people
- architecture and space.

All of which is fine, but we still have not dealt with the ethical questions that have been raised through the history of eugenics:

- What do we gain/what do we lose in the change?
- Is the change an improvement/necessary? If so, by whose standards?
- What is the cost and how do you justify the cost to individuals who have to pay that cost?

... Aye, there's the rub!

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^{iv} Wright, Robert (1994), *The Moral Animal*, Vintage Books, New York

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^x Woodsmall, Wyatt (1998), *Strategies*, Next Step Press, US

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^{xii} Winston, Robert (2006), *The Human Mind*, BBC

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