Pressing evolutionary buttons to go green

We all say we want to be green and help save the planet but when it comes down to it we just don't - or cant - manage to change our lifestyles to match actions with words. So what about applying a spot of evolutionary psychology and seeing what happens next, ask **Mark van Vugt** and **Vladas Griskevicius**

WHEN the Dutch explorer Jacob Roggeveen visited Easter Island in 1722, he found a barren landscape inhabited by a society on the verge of environmental collapse. Yet only a few hundred years earlier, the island had been covered with lush forests with a thriving culture. Disaster struck – and it was entirely man-made. The islanders were competing for status by erecting huge stone statues, and so many trees had been needed to transport the monuments that by 1722 the island was almost completely deforested.

So much for the environmentalists' cliche of the "noble ecological savage". Fast-forward to the modern world. A recent US survey shows that while an overwhelming majority of people are very keen to be green, fewer than 10 percent use any environmentally friendly products or curb household consumption. Clearly changing our habits is a real challenge.

Why? It may be time to trawl our deep evolutionary roots for some answers. Natural selection has endowed humans with a psychology best suited for a hunter-gatherer life style, which means that a large portion of human-inflicted ecological damage may well be caused, or seriously exacerbated, by innate tendencies to value self-interest, short-termism, relative status, social imitation, and to ignore novel threats.

The good news, according to our research, is that these instincts can be harnessed to help develop more effective sustainability policies. Take self interest. Evolutionary theory sees self-interest as not simply equating with the interest of an individual person but as extending to kin who share our genes. So a message urging people to conserve water may be more effective if it emphasizes that there may not be enough water for our children or grandchildren. Kin appeals will always win over non-kin appeals - even such fake labels or slogans as "Mother Nature" or "We are family" can produce pro-environmental change.

Then there is reward theory: would you rather have $100 now or $150 dollars in a month? Like our ancestors, our research subjects prefer the immediate, smaller reward. But evolutionary theory suggests that people may vary in how much they discount the future depending on how certain they believe that future to be. We find that people discount the future less if they see their environments as safe and more predictable. This suggests that policies encouraging people to take a long-term perspective and develop a more sustainable lifestyle should focus on making neighbourhoods safer and crime-free, and on keeping families and communities together.

For men in particular, this predictability also connects to the likelihood that they will find a mate. When women are perceived to be scarce and men are less certain they can find a mate, our research has shown men become more impulsive and shortsighted. Surely conveying to men that women prefer mates with a sustainable lifestyle is likely to make them less impulsive and more forward-looking? Perhaps "green" websites such as Treehugger.com should include opportunities for finding partners?

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Then there's the thorny issue of status. This desire fuels the excessive consumption of luxury goods, thereby contributing significantly to the depletion of natural

PROFILE

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This essay is based on an article on the evolutionary bases of sustainable behaviour that they co-wrote with Stephanie Cantu for the Journal of Public Policy and Marketing

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resources, pollution and waste. It does not even seem to make people happier. The average US income has increased by 140 per cent since 1946, but, as far as the best metrics can tell, average happiness has not changed. So any strategy that does not take relative status into account is fighting a losing battle.

There are ways to reverse this. Our research shows that people also compete for status by being kind, compassionate, and green. In fact, we've found a desire for status can promote self-sacrifice, by, say, competing to be the most environmentally aware. This "competitive environmentalism" has been shown to work when lists of the top greenest companies are published: after all, who would chose to come bottom? And naming and shaming campaigns on social media are also gaining momentum.

Social imitation is another under-appreciated contributor to environmental problems. Even though people say that the behaviour of their neighbours has little effect on their own green habits, we find it is one of the strongest predictors of energy and water use. Because of this instinct, asking consumers to behave environmentally will fail if they are not convinced that many others will do too.

We have already seen the paradoxical outcome of attempts to depict a problem as regrettably frequent. For example, a sign at the Petrified Forest in Arizona which tries to prevent the theft of petrified wood by informing visitors about the regrettably high number of thefts each year only increases the

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incidence. As far better strategy is to invoke majorities. In our research using towel reuage as a model, when we tell guests that most others reuse their towels at least once during their stay, reusage goes up by 34 per cent. The US electricity company OPOWER already uses this strategy by providing information to householders on how their electricity usage compares to that of their neighbours. People receive a smiley if their usage is lower, which further cuts consumption. Governments could take note and oblige utility companies to provide this kind of feedback.

Our ability to ignore novel threats is perhaps a more complex challenge. How do you know that the environment is being destroyed? Your house smells fine, your neighbourhood has trees, you can get plenty of delicious food at the store. We are poor at taking on board the severity of environmental risks: unless we see, hear, feel or smell how our behaviours affect the environment we rarely change our habits.

One way round this can be a spot of covert environmental engineering. A recent study in the Netherlands, for example, found a 70 per cent reduction in rubbish in train carriages where people could detect the smell of cleaning products.

Alongside our destructive basic instincts which we argue can be transformed into positives, there is another plus point. Much of the world's population lives in massive cities largely devoid of nature, but our research shows that when urban dwellers are shown short video-clips of natural scenery, they are more restrained in the way they behave environmentally, and contribute more money to environmental causes.

To foster this apparently innate love of nature, or biophilia, we need to find creative ways to expose city-dwellers to nature in a way that they can appreciate and engage with, for example, by greening neighbourhoods, offices, and hospitals. We're currently checking our theories by exploring whether including more green spaces in school yards in the Netherlands positively affects children's social behaviour and academic performance.

The bottom line, then, really does seem that the most effective way to save the planet is to adopt policies that are themselves sustainable because they are based on understanding our evolutionary nature rather than working against it. Let's leverage the deep power of the past for our future good.