Insights and applications into the evolutionary psychology of climate change behaviors

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Abstract

We look at climate-related behaviors through the prism of evolutionary psychology, focusing on what motivates or dissuades people from acting sustainably to combat climate change. We explain five major ancestral psychological reasons that impact people's environmental decisions in fundamental ways, in addition to current understanding. We examine how developed psychological systems such as self-interest, status, sensing, discounting tendencies, and social imitation might be exploited to promote pro-environmental behavior in recent studies. We examine the benefits and drawbacks of evolutionary-based behavioral interventions, as well as several open research issues that can help to integrate evolutionary approaches into mainstream environmental psychology.

Keywords: Climate change • Evolutionary psychology• Pro-environmental behavior • Climate change interventions • Ancestral motivations

Introduction

Climate change will almost certainly have catastrophic social, health, and environmental effects [1]. Reduced anthropogenic greenhouse gas emissions, on the other hand, may be able to mitigate these effects [2]. Although many lifestyle choices have the potential to reduce personal annual emissions [3], persuading people to take environmentally friendly actions is difficult. Despite the fact that many people express concern about climate change [4], only a small percentage of them take sustainable actions [5]. It's typical to see a disconnect between pro-environmental views and practices [6,7]. Social and environmental psychologists have spent a lot of time exploring the forces that inspire pro-environmental behavior in order to bridge this gap [8]. However, these studies have primarily focused on proximate motivations including environmental values, social norms, and monetary incentives.

Climate change and evolutionary Psychology

Many of our psychological and behavioral traits, according to evolutionary psychology, have been molded in a functional, adapted fashion by natural selection. For example, our desire for sweet and fatty foods is a psychological adaptation that has evolved to help our ancestors live in (often) calorie-deficient situations. A key lesson from evolutionary psychology is that behavior-change efforts may be ineffective if they are misaligned with the ancestral incentives that drive the problematic behavior. Educating people to avoid junk food because it is bad for their health, for example, may be less helpful than sweetening vegetables and fruits.

Environmentalists who are just interested in themselves

Humans, like all other organisms, have evolved to value their own outcomes over those of others. Many people's environmental decisions are motivated by their own self-interest. However, people's self-interests may imperil collective attempts to reduce climate change in the long run. Indeed, viewing climate change as a global social challenge suggests that it can only be solved if countries (and their populations) agree to doing what is right for the common good and dramatically decreasing their emissions. However, while reducing emissions may appear sensible from a societal standpoint, persuading people to abandon what is good for them is extremely difficult. Emissions. However, while reducing emissions may appear sensible from a societal standpoint, persuading people to abandon what is good for them is extremely difficult. Indeed, earlier study has found that emphasizing the negative effects of environmental problems for their children (i.e., their genetic future) activates kin care motives, which in turn promotes pro environmental intentions. Similarly, emphasizing self-interest — whether economic, health-related, or genetic — has been shown to reduce drivers' engine idling during long wait stops, and persuasive strategies based on kinship-based appeals have been shown to positively influence animal conservation efforts, particularly among those who have low levels of environmental concern. This last finding is significant because it points to the efficacy of kinship appeals. Indeed, according to current models, appeals that focus on people's selfish concerns appeal to a larger audience than global, environmental appeals to urge climate change action.

Keeping up with the environmentalists is a priority
In most species, achieving higher social status and social rank is linked to a variety of evolutionary advantages. Humans, too, are not immune. As a result, our mentality is thought to have developed to be motivated by the need to attain and demonstrate status [9]. Indeed, the costly signaling theory contends that species generate costly traits to communicate no directly observable attributes to possible partners, and when applied to humans, this theory proposes that social status can also function as a signal of a person's relevant underlying qualities [10].

According to recent research, customers' perceptions of their social position improve when they eat sustainable items. This is not changed by product price, according to previous findings, but rather by people's opinions that sustainable consumers are more prosocial. Individuals who conduct in a pro-environmental manner are not only perceived as more prosocial, but they are also preferred as social partners. Similarly, communication indications indicating a pro-environmental lifestyle improve the romantic attraction of senders in romantic situations. When they consume sustainable items, both men and women regard opposite-sex individuals as more desirable long-term partners — and to a lesser extent, short-term lovers — and (men) proprietors of such products are perceived as selfless and committed parents and partners. To be sure, most of these conclusions are based on the signalers' expectations and views of their behavior rather than actual action. Environmentalists, for example, are supposed to be more cooperative, yet they do not contribute more to experimental public goods games than non-environmentalists. It has been claimed that the (lack) of visibility of the cooperative act is to blame for the disparity between cooperativeness anticipation and actual cooperation. When such judgments are made openly, people indicate a higher willingness to pay for green products that are more expensive than their non-green equivalents. Individuals donate more to environmental organizations when their acts are public, and they donate even more when their actions are viewed by someone they will engage with in the future.

Detecting the threats of climate change
Climate change is sometimes regarded as a distant, slow-moving issue that escapes our natural, acute threat-detection system. People are frequently only made aware of such issues as a result of current information outlets. Yet, to assess future environmental hazards, prehistoric humans relied on immediate environmental cues (such as a drought or bushfire). Climate change's global and slow-moving character, according to evolutionary mismatch theory, fails to trigger an immediate self-protection reaction, making it less probable for humans to alter their actions. Offering rapid clues detectable through our basic sensory processes — scents, visual, and sounds — can overcome the mismatch by improving the effectiveness of environmental communications. Householders' motivation to engage in energy-saving actions is increased when thermal energy is visualized, according to energy study. Furthermore, research reveals that sensory information can aid in the creation of cleaner public areas and the reduction of plastic pollution. Even the fragrance of cleaning products in trains reduces littering, and if visualized, bottled water usage is likely to decline. Evolutionarily old emotions that humans experience through their bodily senses can potentially be used to stimulate climate change actions. Disgust-based persuasive tactics, in particular, appear to be an effective strategy to change unsustainable eating practices by triggering self-protection demands. Combining animal products with evolutionary relevant dangers such as infections, for example, has a negative impact on attitudes toward meat consumption. Disgust, on the other hand, is a significant barrier to overcome in the acceptance of sustainable food technologies such as lab-grown meat and edible insects. Recent findings on the acceptance of lab-grown meat, for example, demonstrate that its perceived unnaturalness generates sentiments of revulsion, which limits willingness to consume and purchase it. Many creatures, including humans, are prone to temporal discounting, which refers to the preference for instant gratification over later, uncertain gratification. Given that the longer a person waits for a reward, the more likely it is that the benefit will be lost, our brain has likely evolved to bias decision-making to devalue future fulfillment. This proclivity to devalue the future, on the other hand, may conflict with environmental regulations that require individuals to act responsibly in order to avoid potentially harmful environmental consequences of climate change.

Although humans value immediate gratification above delayed gratification, this preference is influenced by contextual circumstances and ecological cues that can be managed to some extent through climate action efforts. Regular exposure to nature, for example, reduces temporal discounting rates when compared to exposure to urban surroundings. Recent study indicates that this could have ramifications for environmental decision-making. People prefer to wait longer for improved air quality when shown photographs of natural landscapes.

Conclusion
Humans are sociable creatures. Because resource scarcity and unpredictability were likely factors in prehistoric humans' habitats, adaptations to imitate, learn from, and follow others are likely to have given them with several evolutionary benefits. Social learning, according to cultural evolution theories, evolved to reduce the costs of trial-and-error learning. However, in terms of climate action, the tendency to follow in the footsteps of others could backfire. When the majority of people behave sustainably, descriptive social norms — that is, norms based on impressions of what most others are doing — can be successful in promoting sustainable conduct, but when the majority does not, the opposite happens. The presence of others, for example, might occasionally exacerbate people's proclivity to over-purchase food, resulting in increased food waste. However, our natural desire to imitate others and emulate role models can be exploited to promote climate action. People, for example, are more likely to prioritize addressing climate change if there is a stronger apparent scientific consensus. Furthermore, meta-analytical research suggests that descriptive norms are positively connected with climate change adaptation action participation. Limitations to a functional approach to climate change and future developments Although each of the aforementioned ancestral motives can be used to build interventions to boost climate action, they must be used in the correct context. Take, for example, the status-motive. People sometimes buy more recyclable shopping bags than they really need in order to gain a green reputation. For other people, signaling a green reputation is more important, and they are more likely to flaunt their green credentials in public.

We evaluated current studies that used an evolutionary psychology lens to study climate-relevant behavior, either implicitly or explicitly, in this short essay. Despite the progress made thus far, a number of scientific questions remain unanswered. Could leveraging two developed processes at the same time, such as observing your children display revulsion when eating meat, improve interventions? Furthermore, as has been done elsewhere in the context of the influence of greening schoolyards on children's social and cognitive development, future research might explore interventions — and their effects — longitudinally. Finally, because the majority of the studies we've reviewed has used self-reports, it's crucial to consider how...
these impacts translate to real behaviors. These and other issues, in our opinion, are critical for integrating evolutionary ideas into mainstream environmental psychology.

References


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