

# Refusing to Acknowledge the Problem of Climate Change Denial

Written by Kirsti M. Jylhä

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Human-induced climate change is a major threat for people and other inhabitants of Earth (Intergovernmental Panel on Climate Change [IPCC], 2014). Climate scientists are highlighting the importance of mitigation efforts that are needed to avoid the most severe consequences, but many people do not have interest in the issue and some even deny that climate is changing due to human activities (Leiserowitz et al., 2013). Given the widespread scientific evidence, it is important to move on from questioning whether the climate is changing due to human actions to asking what hinders people from acknowledging it.

Individuals may deny climate change for various reasons (see American Psychological Association, 2009; Milfont, 2010; Ojala, 2012). For instance, some find it hard to comprehend the problem due to its complexity and some deny it as an effort to cope with negative feelings that fear of climate change evokes in them. Also, scientific conclusions are not reported as definite truths, but rather in terms of likelihood and probabilities. It may be difficult for lay people to interpret conclusions that are reported in this way, which can lead them to underestimate the level of certainty in the predictions and consensus among climate scientists (Budescu et al., 2009).

Climate scepticism is also tactically promoted by organised 'denial machines' that are funded by wealthy foundations and corporations (Oreskes and Conway, 2010; McCright and Dunlap, 2011). These denial machines aim to influence public opinion by manufacturing uncertainty and doubt. Two of their main strategies consist in attacking climate science and scientists, and spreading counterevidence about climate change. In part because of this influence, strongly dismissive views on climate change are repeatedly being presented in the media and everyday discussions, hindering public support and delaying environmental action. Of particular interest for this paper, the majority of the literature providing counterevidence for climate change is published outside scientific communities and has links to politically conservative movements and think tanks (Jacques et al., 2008). This counterevidence also gains more support from conservative voters, and is more commonly communicated through conservative media and blogs, when compared to liberals (McCright and Dunlap, 2011; Feldman et al., 2014). Thus, although the reasons for denial may vary, political orientation seems to be a central issue.

### **Political ideology and climate change denial**

Substantial evidence from different countries shows that politically conservative/right-wing individuals report higher levels of climate change denial when compared to their liberal/left-wing counterparts (McCright and Dunlap, 2011; Poortinga et al., 2011; Häkkinen and Akrami, 2014; McCright et al., 2016; Milfont et al., 2015). This divide has been reported not only when it comes to denying the observed and predicted changes in the climate system but also when it comes to denying human contribution to these changes, as well as the danger and seriousness of them.

One reason for the ideological divide is that conservative voters are exposed to more dismissive messages about climate change, as conservative politicians and other role models have been communicating more sceptical views on

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climate change than their liberal counterparts (Jacques et al., 2008). However, it is important to note that opinions are not only dependent on external influences such as exposure to different kinds of ideological messages. Rather, there are also certain psychological factors (as are discussed in this contribution) that make individuals more or less prone to adopt different ideological views (Jacquet et al., 2015). Thus, conservatives can be expected to be inclined to doubt the reality of climate change even if they have not been influenced by any ideological messages regarding the issue. Indeed, the observation that climate change denial is largely promoted by conservative think tanks supports the suggestion (Jacques et al., 2008).

Climate change is an increasingly political issue in part due to ideological communications, but the psychological factors that underpin political orientation could explain what led some conservatives to campaign against climate science in the first place. In this chapter, I discuss climate change denial in relation to two overall psychological tendencies that are linked to political orientation – resistance to societal change and acceptance of inequality – as well as psychological mechanisms that underpin these tendencies.

## Resistance to change

Preference for traditional lifestyle and values, as well as resistance to social and economic change, is a core component of conservative ideologies (Jost et al., 2003). When compared to liberals, conservatives also tend to favour system-justifying ideologies (see Jost et al., 2003), defined as acceptance and defence of the status quo, such as the prevailing social and economic structures and norms (Jost and Banaji, 1994). Importantly, individuals who are motivated to perceive the status quo as legitimate and desirable resist information about environmental problems caused by our current lifestyle (Feygina et al., 2010).

One reason for the attractiveness of conservative and system-justifying ideologies is that they enable relatively simple and certain ways of explaining various phenomena and offer clear and stable guidelines for handling different situations (Jost et al., 2003). Thereby, they provide a sense of certainty, stability and safety and reduce anxious and negative feelings. Put another way, conservative ideology can be considered as a motivated cognition that satisfies the need to manage uncertainty and threat (Jost et al., 2003). This view is supported by consistent findings showing that a tendency to see the world as a dangerous place and motivation to avoid uncertainty and threat is more common among conservatives than liberals (Jost et al., 2003; 2007).

Motivation to avoid uncertainty is of importance when explaining climate change denial. More specifically, climate change is a complex phenomenon that cannot be explained and predicted with full certainty. In order to cope with this uncertainty, individuals may be attracted to the simplest and most definite explanation that has been given for climate change; that is, 'climate change is not occurring at all'. As conservatives tend to dislike uncertainty more than liberals do (Jost et al., 2003), this uncertainty avoidance tendency can be expected to be more common among conservatives than liberals. As for threat avoidance, climate change might be perceived as a twofold threat for people: it is a threat to life on Earth, while climate change mitigation is a threat to the status quo. Denial offers a way to cope with both these threats, as it diminishes the fear for climate change and enables people to perceive the status quo as unchangeable and justifiable again (Feygina et al., 2010; Ojala, 2012). However, no study has investigated whether the motivation to manage uncertainty and threat indeed explains any part of the relation between political ideology and climate change denial.

## Acceptance of inequality and environmental injustice

As discussed above, one reason for climate change denial is that people are motivated to accept the status quo and adhere to traditional ways of living. However, is it not a huge risk to ignore the warnings about dangerous climate change simply out of motivation to continue living as before? The answer to this question seems to be 'no' for some people, who do not consider themselves or their loved ones to be at risk (Milfont, 2010; Spence et al., 2012). Rather, they are inclined to distance themselves from the problem and believe that climate change affects people who are psychologically and geographically distant from them and that its consequences will be felt more in the future than today.

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These perceptions are somewhat accurate for some, as climate change is not likely to affect most seriously the wealthy and powerful populations (IPCC, 2014). Rather, disadvantaged people and nations are facing the highest and most acute risks, as they lack the needed resources to cope with the negative effects, such as reduced food and water supplies and extreme weather events. Also, future generations and non-human animals are at serious risk (IPCC, 2014). The populations least responsible for the current greenhouse gas emission will be facing the most serious consequences of climate change. What is more, climate change is likely to slow down economic growth, exacerbate poverty and create new poverty traps (IPCC, 2014). Thus, climate change can be perceived as a form of social injustice (Schlosberg, 2013), which offers an important further explanation for why political ideology is linked to climate change denial.

When compared to liberals, politically conservative and system-justifying individuals tend to accept policies that maintain inequality and injustice (Jost et al., 2003) and also score higher in a variable called social dominance orientation (SDO) (Jost and Thompson, 2000; Wilson and Sibley, 2013) that captures acceptance and promotion of group-based social hierarchies and dominance (Pratto et al., 1994). Recent research suggests that individuals who report high levels of SDO support human dominance over the rest of nature, accept nature utilisation and environmentally harmful actions (particularly if such actions benefit high-status groups) and deny climate change (Jackson et al., 2013; Milfont et al., 2013; Dhont et al., 2014; Milfont and Sibley, 2014; Jylhä and Akrami, 2015). Thus, SDO could help to explain the relation between political orientation and climate change denial.

In order to test this, Jylhä and Akrami (2015) have investigated whether the relation between conservative ideology and climate change denial holds after the effect of this social dominance orientation is statistically taken into account. It was found that the effects of conservative ideologies (i.e. political orientation, system justification and right-wing authoritarianism) on denial either vanish or substantially decrease when SDO is controlled (Häkkinen and Akrami, 2014). In other words, SDO explains why some individuals are denying climate change, and above the effect of SDO, the other ideological variables add only a small or zero contribution to explaining denial. Thus, an important explanation for the relation between political ideology and climate change denial is that conservatives accept and promote inequalities to a higher degree when compared to liberals (see also McCright and Dunlap, 2011). This suggests that it could be beneficial to focus specifically on SDO when explaining the ideological bases behind climate change denial, rather than focusing on political ideology or conservatism in general.

## Social dominance orientation and climate change denial

SDO measures positive views on social hierarchies, and recent research has demonstrated that this tendency extends into accepting hierarchical relations between humans and nature as well (Milfont et al., 2013). In this hierarchical system, humans are perceived as a superior group with a legitimate right to dominate the rest of the nature. In line with these findings, Jylhä and Akrami (2015) have found that SDO correlates with accepting attitudes regarding nature dominance. They have also shown that acceptance of these two types of group-based dominance – social and nature dominance – uniquely predict climate change denial. Although future studies should investigate this question further, it seems that climate change is disputed as an effort to defend the existing social and human–nature hierarchies.

Psychological factors that are linked to SDO offer further understanding about climate change denial. Individuals who score high in SDO tend to perceive the world as a ‘competitive jungle’ where hierarchies are inevitable and natural (Duckitt, 2001). Also, people may learn to hold desirable views on power structures through socialisation processes, because such views are widespread in society (Pratto et al., 1994). Consequently, people can score high SDO regardless of their own societal power position. These tendencies are of importance, as they imply that high SDO individuals may deny climate change and support anti-environmental actions even if they belong to the social groups that are, or are at risk of being, seriously affected by climate change. It is also important to consider that climate change has been predicted to increase poverty and competition over natural resources (IPCC, 2014). This may lead some individuals to see hierarchies and uneven distribution of climate-related risks even more natural and acceptable, which can make them more accepting of climate injustice.

When it comes to personality underpinnings, SDO has been shown to correlate with empathy (Pratto et al., 1994)

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and trait-dominance (Grina et al., 2016). That is, individuals who do not empathise with other people and who wish to gain access to resources and powerful positions in society tend to hold positive views regarding group-based hierarchies. These same personality traits could also underpin denial; unconcern for the projected victims of climate change could reduce any sense of urgency about the issue. Indeed, these tendencies are relevant when explaining climate change denial (Jylhä and Akrami, 2015). In particular, (low) empathy predicts climate change denial, and a similar tendency (although not statistically significant) was found for trait dominance. Importantly, SDO mediates both of these relations, and nature dominance mediates the relation between empathy and denial. These results suggest that (low) empathy and trait dominance predispose individuals to accepting group-based hierarchies, which in turn predicts climate change denial.

## Concluding remarks

In the light of the psychological research reviewed here, it seems clear that climate change denial is a motivated cognition underpinned by the willingness to maintain the status quo. For example, politically conservative ideology has been consistently shown to be related with climate change denial (i.e. McCright et al., 2016). However, recent research shows that one important explanation for this relation is that conservatives tend to be more accepting when it comes to injustice than liberals (Häkkinen and Akrami, 2014; Jylhä and Akrami, 2015). This finding suggests that climate change denial does not merely reflect a general unwillingness to change, but more importantly seems to include acceptance of unequal distribution of power and risks between different groups of people and between humans and nature. When considering that climate change is mainly caused by the current lifestyle of the wealthy and that it will primarily affect disadvantaged people, future generations and non-human animals (IPCC, 2014), these results seem logical. Climate change denial seems to reflect a motivation to protect and justify the status quo regardless of the negative consequences that it will have on many, both people and animals, today and in the future.

These results are of importance when considering how people could be motivated to support climate change mitigation. The injustice that climate change involves should be better highlighted, as many people may not be aware of this aspect. This information could increase their motivation to change their behaviour in order to lessen their impact on the climate system. However, when considering the links between climate change denial and empathy, as well as trait dominance, further ways of communication could be considered. Perhaps people who do not empathise with the expected victims of climate change, and who do not wish to jeopardise the resources and power positions that they occupy or wish to occupy, could be reached by other sorts of communication. Indeed, it has been shown that when climate change mitigation is presented as a way to conserve traditional lifestyle, high system-justifying individuals begin to support environmental protection (Feygina et al., 2010). Also, a recent cross-cultural study demonstrated that emphasising co-benefits of addressing climate change, such as economic development or a more moral community, can motivate people to behave in environmentally friendly ways regardless of the level of their belief in climate change (Bain et al., 2015).

It is important to acknowledge that people have multiple concerns regarding climate change. In addition to the negative consequences that the changing climate is causing for people and animals, many worry about the societal changes that could result from mitigation efforts. It would be beneficial to plan both the mitigation policies as well as communication strategies by taking these concerns into account.

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