

Emotions and Media Coverage in High-Carbon-Emitting Behavior

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While the global poorest, who make up 50% of the world's population, are most afflicted by the climate crisis, they contribute least to it in comparison with the global richest, who make up only one percent of the world's population. The growing climate injustice should therefore be considered as a moral issue. The moral problem is that high polluters, usually the better-off, have many options to fall back on to mitigate the consequences of their behavior. For example, they have the financial means to protect themselves from climate change impacts (e.g., droughts and floods).

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1. The Role of Emotions

Emotions were found to shape carbon-related behavior and its moral dimensions ^[1]. Additionally, they are pivotal in climate change communication. Roeser ^[2] argues that people lack a sense of urgency in regards to climate change. In her study, emotions made up for this lack of urgency and made people aware of the negative consequences of climate change, as they perceived the climate crisis to be a moral issue. Consequently, emotions are necessary for moral decision making and understanding the moral impacts of the risks of climate change. Roeser ^[2] even argues that emotions might be the missing link to successfully communicate about climate change. In a recent review ^[3], this key role of emotions receives support: climate change emotions are “consistently found among the strongest predictors of climate change risk perceptions, mitigation behavior, adaptation behavior, policy support, and technology acceptance” (p. 18).

Information regarding humans suffering from consequences that could be attributed to one's own high-carbon behavior might give rise to strong, emotionally distressing reactions (e.g., shame or guilt) and lead to the conclusion that this behavior is not compatible with widely held moral standards ^{[4][5]}. The conclusion that “the stronger a person's emotional reaction, the more likely that person will engage in a new behavior” ^[6] proved to be the case irregularly ^[7]. In some cases, individuals employ psychological strategies to prevent themselves from experiencing these negative feelings. These strategies comprise, among others, denial, diffusion, or delegation of responsibility (see the moral disengagement strategies below), and have most prominently been investigated by Bandura ^[8]. Bandura's theory is based on Festinger's ^[9] theory of cognitive dissonance. Cognitive dissonance is described as perceiving either two conflicting cognitions or the conflict of a cognition and an incompatible action. Cognitive dissonance leads to emotional distress and the associated stress of avoiding it. Therefore, the theory predicts that individuals who experience cognitive dissonance strive to resolve or deny it. Festinger studied the psychological effects of new, inconsistent information on one's existing beliefs and observed a natural, psychological resistance to belief revision as a result of dissonant information.

Therefore, to understand the many causes of persistent and undesirable climate-altering behaviors, it is necessary to focus on emotions and emotion-regulation strategies, as they are central to behavioral decision making ^{[2][6][10]} and influence carbon-related behaviors in several respects ^{[11][12][13]}. Environmental psychologists distinguish between different emotional types as being relevant to carbon-related behavior ^{[1][14]}. Here, it refers to the categories of Landmann ^[1]. Three of these emotional types are of particular relevance here. First, when personal norms are violated, a person is confronted with self-condemning emotions, such as guilt, shame, or embarrassment, which lead to a tendency to correct the mistake or repair the environmental damage. Second, when personal norms are altered in a positive way, a person feels self-praising emotions such as pride. As a result, self-support is sought. Third, observing others' suffering, other-suffering emotions occurs (e.g., compassion, empathy, or emotional contagion), which in turn leads to helping those in need.

Of course, “whether an emotion enhances or hinders pro-environmental behavior depends on its object” p. 66 ^[1]. Consequently, to make people behave in a less carbon-emitting way, they need to be aware of others' suffering, realize that this fact is violating their own norms, and learn to act in ways that are consistent with moral norms so that self-

praising emotions can be anticipated and self-condemning emotions can be prevented as a consequence of this alternative behavior.

Above all, guilt and pride have been investigated in the domain of high-carbon-emitting behavior ^[15]. Hurst and Sintov ^[15] discuss several studies that show that pride and guilt can positively influence pro-environmental behavior in general but that these findings are inconsistent: some studies find guilt, but not pride, to be an effective motivator of pro-environmental behavior, whereas others show the opposite pattern, or even observe that both emotions function as motivators. For example, Shipley and van Riper ^[16] found an equally strong explanatory power of anticipated guilt and pride on pro-environmental behavior. In contrast, only experienced guilt predicted intended and reported actions, while experienced pride did not (see also Adams et al. ^[17]). Hurst and Sintov ^[15] found that the influence of these two emotions depends upon the context of their induction. Overall, the findings “provide consistent evidence supporting the role of guilt in motivating behavior change and suggest that evoking pride can work in some contexts” p. 9 ^[15]. The scholars assume a negativity bias resulting in a higher and more reliable impact of guilt than pride. According to Hurst and Sintov ^[15], a negativity bias asserts that experiencing negative events indicates a need for change, whereas positive events indicate no need to modify behavior as things are going well. Scholars follow this interpretation as negative emotions are highly aversive and therefore might motivate behavior that changes the situation.

However, positive emotions, such as pride, can lead to positive behavior.

If assuming that people want to avoid unjust conditions, even when they benefit from them (as evidenced by various empirical studies, e.g., ^{[18][19][20][21][22][23]}), then those with high carbon footprints should be confronted repeatedly and in emotion-inducing manners that demonstrate how their high levels of emissions engender climate injustice. According to the model of affect generalization, repetition is important since one single emotional experience might not be sufficient to change behavior. Landmann ^[1] concludes, “emotions are relevant for behavioral intentions only if they generalize to affective attitudes” p. 69 ^[1]. This repetition can be a role of the media. Media, such as TV, images, videos, or newspapers have already been used successfully in emotion-based psychology research to evoke certain emotions (for literature on affect elicitation by images, see, e.g., ^{[24][25]}; see below for a detailed analysis).

2. The Role of Media Coverage

According to Moser and Dilling ^[26], individuals gain understanding and engage in emotional responses while consuming media content, it is useful to scrutinize the influence of the media on the cognitive, emotional, and behavioral dimensions that influence carbon-related behavior.

So far, when it comes to exploring low-carbon behavior, a practice referred to as “climate silence” has been observed as a continuing disregard of climate victims ^[27]. Climate silence is defined as a social construct, and it describes people tacitly agreeing to ignore the “more disturbing” implications of the climate crisis, e.g., the fact that other people are already dying (e.g., due to floods or heatwaves) around the globe. In particular, scholars see at least two concrete tasks for climate change communication via the media: first, the connection of one’s own privileges to high-carbon behavior and others’ disadvantages is rarely apparent. The harmful consequences of the climate crisis are abstract, temporally and spatially distant, and complex as well as unintended ^[28]. Hence, some people do not feel responsible, which hinders them from feeling a moral obligation. To show this linkage, appropriate and relevant media coverage is essential. Second, people might tend to morally disengage when they face emotional distress such as guilt due to their carbon behavior. Therefore, the media should combine (1) reporting about harmful consequences, and (2) efficient mitigation and adaptation strategies.

Up to now, it has been apparent that a wide range of information about climate change in the media often fails to motivate behavior change in its audiences ^[29]. One reason for that failure is that motivating low-carbon behavior through the media is complicated by not knowing whom or what to trust regarding the most appropriate behavior, a confusion rooted in the media’s mixing of opinions and arguments ^[29]. Furthermore, the range of conflicting messages about the climate crisis across the media has contributed to confusion. Therefore, messages reflecting scientific consensus across the media are important. While, as in any scientific field, there will be disagreement on specific topics, the basic arguments about anthropogenic climate change are increasingly accepted. Goldberg and his colleagues argue that public understanding of this scientific consensus acts as a ‘gateway belief’: people who learn about the existing consensus become more convinced that climate change is happening, human caused, and a serious threat, and in turn become more supportive of climate change policies ^[30]. Therefore, the language of risk, which is rather unfamiliar to a large share of the population, and which is increasingly used in climate change communication ^[31], should always be contextualized with information about how science works and that the current scientific consensus about human-made climate change is immense. A core

strategy of individuals denying the climate crisis is to foster public confusion about scientific consensus and thus prevent or delay political climate change efforts [32][33].

Another reason for the media's failure to motivate carbon-related behavior change is that the climate crisis is subject to peaks and troughs in media attention [29]. It is noteworthy that, since the onset of the COVID-19 pandemic, global media coverage of the climate crisis has dipped dramatically (for the situation in Germany, see **Figure 1**).

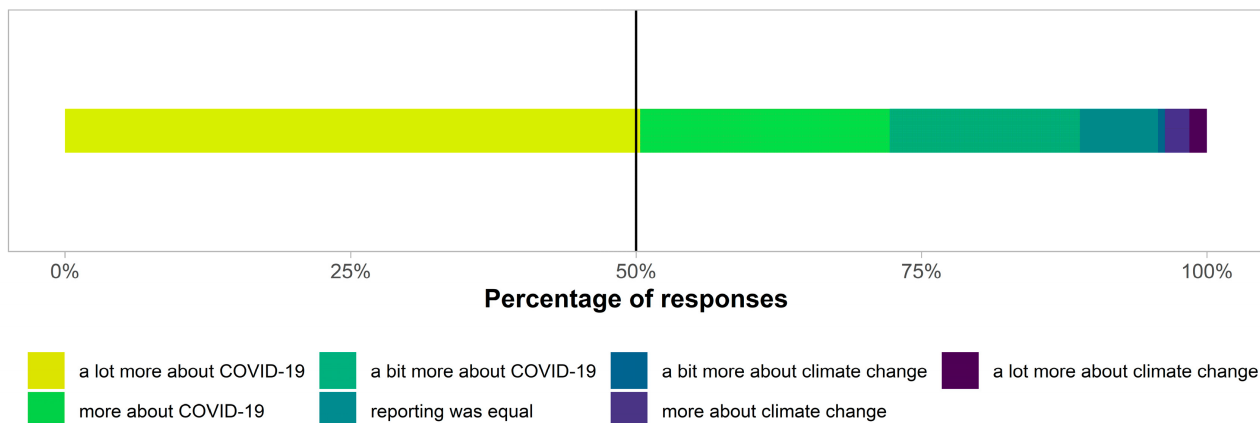


Figure 1. Relative frequencies of perceived media coverage on climate change in comparison to COVID-19. Vertical line indicates median response. $N = 979$.

The media's failure to adequately report about the climate crisis (especially, but not only in times of the COVID-19 pandemic) can be explained using Chomsky and Herman's *Propaganda Model* [34], which offers a framework for analyzing and understanding the workings of the mainstream media and its connections to government propaganda demands. Chomsky argues that the media serve powerful stakeholders who control and finance their actions. This is realized by the "selection of right-thinking personnel and by the editors' and working journalists' internalization of priorities and definitions of newsworthiness that conform to the institution's policy". Chomsky strives for the creation of a large number of media outlets, including the activities of grassroots movements and non-profit organizations, which would better reflect the perspectives of ordinary citizens, and so democratize information flows.

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