

Could Loss Framing Better Highlight Differences in CO₂ Emission Amounts?

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Information on CO₂ emissions is being given to individual travellers in the hopes that it will raise awareness among those who have less familiarity and experience with travel-related emissions, change their attitudes, and help them to make informed (and more sustainable) travel decisions. However, little research has been done on the effectiveness of the design of such information.

Framing deals with the semantic organisation of information, without affect its content. *Loss framing* restructures information so that the negative aspects (the losses) are more apparent. Loss framing builds on the tendency for people to avoid losses (loss aversion) and has been found effective in financial, health, and home energy use studies, but has not been applied to transport-related CO₂ emission considerations.

CO₂ is a relatively new concept for many travellers; even among those who have high level of awareness and are concerned about travel-related emissions, perceiving or valuing the differences between alternatives might be a challenging task. Unlike monetary or health concerns, most individuals have little or no experience with CO₂ emissions and climate change can be considered a social dilemma, rather than an individual problem. The latter point suggests that people may not have as strong a tendency to

personally “avoid” increases in CO₂ emissions, thus lowering the effectiveness of loss framing. Further to that, most CO₂ emissions information is presented as mass, but research suggests that such information may not be useful as people may not be able to interpret it as being a “good” or “bad” amount. If individuals have little experience dealing with CO₂ emissions information and the dominant format of mass is not well understood then it may be difficult for individuals to notice a difference between amounts.

However, considering the effectiveness of loss framing in other fields, it may be possible to use that technique to increase the likelihood of an individual perceiving a difference despite the different levels of understanding and relevance to an individual.

In this study the effect of loss framing on the perceived difference between two travel-related CO₂ emission amounts was measured using an ordered logit model of results from a survey of 186 individuals. We will present the statistical analysis of the survey responses, and the summary of findings from the focus group conducted to gain in-depth understanding of public’s responses to gain/loss framing. With respect to the results, the potential to apply framing and loss aversion to influence transport choices will be discussed.