

# Adaptation to Climate Change vs. Ecological Behavior

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## Introduction

Politics moves at a faster pace than science. Every other year, we, in conservation psychology, are confronted with a new term: climate protection, climate mitigation, sustainability and—most recently but surely not lastly—climate adaptation to name a few. Whereas the terms reflect the variable public debates and political goals, and the changing administrative agendas, the question for psychological science is: do the changing terms also reflect distinct behavioral targets, which in turn expectedly are differentially motivated as well. In other words, is climate adaptation distinct from ecological behavior?

While balancing CO<sub>2</sub>-emissions, lasting economic prosperity and social justice may represent distinct political targets that may or may not be balanced; psychologically, they could still be controlled by one and the same propensity. Nevertheless climate policy requires anticipating people's individual responses to novel, not yet fully recognized challenges like more frequent and extreme weather conditions. There is thus a need for evidence-based tools proficient enough to forecast and promote individual adaptation to climate change, in the private sector (i.e. protection of health, housing) as well as in the public sector. The goal of our study was then to examine the interrelation of ecological behavior and climate adaptation.

## Method

We recorded survey data of 2,377 residents from 50 different political districts within four municipalities and three economic sectors of a German province. The items comprised energy and water use, mobility, transportation, consumerism, political engagement and adaptation to climate change. All of the items were integrated into the General Ecological Behavior Scale (Kaiser, 1998) and were

assessed using the dichotomous Rasch model.

## Results and Discussion

The Rasch model-based reliability coefficient turned out to be 0.78 for all participants. There is evidence that the propensity to protect the environment and to adapt to climate change is rather a unidimensional phenomenon, as the probabilities of the behaviors directed at either of the targets fit into one model. Based on Campbell's paradigm (Kaiser et al., 2010) the likelihood of engaging in climate adaptation turned out to be – just as ecological behavior – an unmoderated function of one's environmental attitude and the specific behavioral difficulty. Based on the specific behavioral means to realize a personal goal (i.e. adapt to climate change), a quantitative and testable forecast was developed of how much change to expect in the various political districts and economic sectors (see Kaiser et al., 2008). Policy-makers were thus provided with tools for promoting one behavioral target, which comprises climate adaptation just as ecological behavior.

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## References

- Kaiser, F. G. (1998). A general measure of ecological behavior. *Journal of Applied Social Psychology*, 28, 395-422.
- Kaiser, F. G., Midden, C. & Cervinka, R. (2008). Evidence for a data-based environmental policy: Induction of a behavior-based decision support system. *Applied Psychology: An International Review*, 57, 151-172.
- Kaiser, F. G., Byrka, K. & Hartig, T. (2010). Reviving Campbell's paradigm for attitude research. *Personality and Social Psychology Review*, 14, 351-367.