Title

Emotional pathways underlying the effect of coastal landscapes on stress reduction and pro-environmental behaviors

Authors

Marine Severin[1*], Ann Buysse[2], Justine Verheye[2] , Gert Everaert[1], Filip Raes[3]

[1] Flanders Marine Institute (VLIZ), InnovOcean Campus, Jacobsenstraat 1, 8400 Ostend, Belgium

[2] Department of Experimental Clinical and Health Psychology, Faculty of Psychology and Educational Sciences, Ghent University, Henri Dunantlaan 2, 9000 Ghent, Belgium

[3] Centre for the Psychology of Learning and Experimental Psychopathology, Faculty of Psychology and Educational Sciences, KU Leuven, Tiensestraat 102, 3000 Leuven, Belgium

Abstract

An increasing amount of research demonstrate that natural environments, and in particular coastal landscapes, positively affect mental well-being and pro-environmental behaviors. Potential emotional factors explaining these effects remain unclear, as well as for who these effects are most pronounced. We conducted a pre-registered experimental study (1) to examine the effects of exposure to coastal landscapes on stress and pro-environmental behaviors, compared to an urban landscape, and (2) to assess the emotional experience of awe (feelings of small self), nostalgia, and nature connectedness as potential mediators. We targeted a low-income population group to explore whether coastal benefits are more pronounced for this group, as suggested in the literature. Participants completed an online survey during which they were randomly assigned to watch a video-clip of either (1) a beach with a sunset, (2) coastal dunes, or (3) an urban street (control condition). Prior to the video-clip, participants recalled a past stressful moment and reported their stress level. Following the video-clip, they again reported their stress level as well as their emotions and pro-environmental behaviors, measured by the Work for Environmental Protection Task (Lange & Dewitte, 2022). A total of 494 Dutch-speaking adults took part in the study, of which the majority (60%) were considered to have low-income. Results are expected by the time of the conference. Understanding the impact of coastal landscapes on specific emotions and how these emotions in turn reduce stress and encourage pro-environmental behaviors

can help improve human-nature interactions, all within the wider context of mental health and environmental action.

Reference:

Lange, F., & Dewitte, S. (2022). The Work for Environmental Protection Task: A consequential web-based procedure for studying pro-environmental behavior. *Behavior Research Methods*, *54*, 133–145. https://doi.org/10.3758/s13428-021-01617-2