

Knowing, owning, caring – the effect of psychological ownership on pro-environmental behavior

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Abstract

In four studies we provide evidence that instigating psychological ownership for the environment holds the potential to foster pro-environmental behaviors. The most promising way to instill a sense of ownership for the environment seems to be through increasing a person's subjective knowledge about it.

Even though many individuals are aware of the need for environmental protection, many do not act accordingly (Newton & Meyer, 2013). One potential way to counteract this well-known attitude-behavior gap could be an increase in psychological ownership (PO) for the environment on an individual level. This feeling of something being “mine” (Pierce, Kostova, & Dirks, 2003) engenders a personal desire to protect and care for the target object (Brown, Pierce, & Crossley, 2014; Kamleitner & Rabinovich, 2010). Whether, however, individuals are able to and how they could develop any notable amount of feelings of ownership for the environment is currently unknown.

According to existing research, an individual needs to make one of three key experiences for PO to arise (Jussila, Tarkiainen, Sarstedt, & Hair, 2015; Pierce et al., 2003): personal investment, perceived control, or intimate knowledge. Because the environment is an omnipresent and ubiquitous target object, knowledge--which can be passively induced (i.e. we get something from the target object, rather than doing something to it (Baxter, Aurisicchio, & Childs, 2015)--appears particularly promising for interventions.

Notably, psychological ownership amounts to a possessive claim that one needs to justify (Beggan & Brown, 1994). One justification could derive from the mere extent of one's knowledge. Another justification could derive from the extent to which the specific knowledge entitles. When evaluating their own performance (Festinger, 1954), including their knowledge, individuals often make use of social comparisons. Feeling like holding superior knowledge to others, i.e. to feel that one's knowledge is something special, may also justify possessive claims. Notably, this even should hold if a person perceives herself to know little overall.

Study 1 (n=124) aimed at unearthing the effect of perceived knowledge on PO for the environment in comparison to the other two experiences. A questionnaire assessed the three key experiences and then PO for the environment. While perceived knowledge was the only significant predictor of PO ($b=.26, p=.015$), perceived control and personal investment had no effect

The objective of **Study 2** was to ensure causality. A pretested quiz with either difficult or easy questions about the environment aimed at manipulating an individual's perceived knowledge about it (Park, Mothersbaugh, & Feick, 1994). After the quiz participants (n=69) got the same items as in Study 1. The manipulation was successful ($p<.001$) and in mediation analysis we found a significant positive effect of the quiz on PO via perceived knowledge. Perceptions of knowledge about the environment predicted PO for it ($b=.35, p=.028$). While supporting the role of subjective knowledge, Study 2 cannot rule out empowerment as a potential alternative explanation. Those in the easy quiz got more questions right, hence more positive feedback and could, thus, have also felt more empowered. Rather than perceived

environmental knowledge, a sense of empowerment may have made them feel like owning the environment.

Study 3 aimed at ruling out this competing explanation and to show the effect of PO on real life behavior.

Participants (n=164) were randomly assigned to a different quiz with again either difficult or easy questions. On top of indicating PO and subjective knowledge participants indicated their felt empowerment over the environment (adapted from Spreitzer, 1995). To measure behavior participants could decide on how much of their remuneration they would be willing to donate for a real life project seeking to protect the Amazon rainforest.

The quizzes rendered the expected difference in perceived knowledge ($p=.002$) but had no effect on feelings of empowerment ($p=.852$). A parallel mediation analysis confirms that the quiz affected PO via subjective knowledge ($b=.34$, $p=.003$) but not via feelings of empowerment ($b=.07$, $p=.363$). Importantly, a serial mediation showed that PO subsequently also affected the amount of donations made ($b=4.12$, $p=.07$).

Studies 1-3 had focused on the extent of subjective knowledge. **Study 4** sought to investigate the potential moderating effect of knowledge superiority. To control for actual information, all participants (n=116) got the same quiz with easy, moderate and difficult questions. To manipulate perceived knowledge superiority, they however received different feedback when answering correctly. The superiority group was told that they knew what others did not know, the average group was told that they knew what others knew as well. In addition to subjective knowledge and PO we assessed environmental knowledge superiority others (“how knowledgeable are in comparison to...?”) (Bartkus, Hartman, & Howell, 1999) and asked participants for their willingness to sign an environmental petition. The manipulation yielded the expected difference in knowledge superiority ($p=.023$) and it also led to higher PO in the superiority condition. As before the extent of subjective knowledge likewise predicted PO. Notably, a moderation analysis indicates that subjective knowledge only increased PO in the average condition. Once participants were made to feel that their knowledge was special in the superior condition, their extent of knowledge did not further boost their PO. Finally, a mediation analysis showed that, through PO, perceived environmental knowledge increased the likelihood of signing the environmental petition ($p=.027$).

Our research provides first experimental evidence for the role of knowledge in the development of PO, and, as such, supports existing theories. Results at hand also provide support for the notion of PO in fostering pro-environmental behavior and lend themselves to practical implications. Information campaigns aiming to increase pro-environmental behavior may be particularly effective if they either manage to instill a high degree of subjective knowledge or if they instill a sense of knowledge superiority. This later strategy seems to be particularly effective for those not feeling knowledgeable in the first place.

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