



## Environmental psychology must better integrate local cultural and sociodemographic context to inform conservation

Finding solutions to urgent and complex conservation problems requires innovative research that draws on various disciplines. St. John et al. (2018) argue that models from psychology help elucidate how people make judgments about wildlife, and hence provide a novel framework for informing conservation. While this landscape-wide approach identifies some of the cognitive factors important for understanding human–wildlife coexistence, we believe the study inadequately incorporates the influence of local cultures, customs and habits on how people interact with wildlife. We raise two main points of contention: (i) the insufficient reference to local culture and exclusion of social diversity from the analysis and (ii) the inaccuracy of the claim that “sociodemographic characteristics generally fail to reveal underlying differences in how people relate to wildlife.”

The authors strongly allude to the concurrence of animist and Islamic ontologies among the Sumatran peoples in their study. Despite this, the values and principles of neither are explained or integrated into analyses. The authors mention three ethnic groups (Minangkabau, Melayu, Kerincinese) without describing the main differences between these groups. This creates a gross over simplification of the local cultural context of human–wildlife relationships which could be problematic, particularly given results from other studies, which demonstrate that incorporating intercultural views into conservation strategy supports flexible policies that are culturally respectful (e.g., Moorcroft et al., 2012).

The categories of analysis chosen by the authors are grounded in western rather than local concepts. For example, in Figure 1, “intolerance” and “stewardship” are shown as a continuum based upon people's behaviours which assumes that killing (an animal) represents intolerance. An abundance of ethnographies suggest that hunters do not always kill wildlife for this reason, and hunters can respect, be intrigued by, and possess in-depth knowledge about the animals they hunt (Kohn, 2013). Such concepts underlie hunter-prey relationships cross-culturally, and yet these ideas are overlooked by the semantic scales used in the study (good-bad; harmless-dangerous). Moreover, these categories are not fully defined by the authors which might prompt inaccurate conclusions.

For example, when asked about a species “goodness,” are the respondents answering if the animal is “good to eat” (i.e., tastes good), “good to hunt” (i.e., easy to capture), or “economically good” (e.g., provides money through tourism). The authors discount the literature, which reports that humans hold multiple views of animals (Jost Robinson, & Remis, 2018), and that people's beliefs about wildlife are not necessarily polarized into negative or positive extremes (e.g., Hockings & McLennan, 2012).

Finally, we disagree with the authors' claim, “sociodemographic characteristics generally fail to reveal underlying differences in how people relate to wildlife.” Anthropologists have demonstrated that age, ethnicity, language, and socioeconomic status (such as income and education) are strongly associated with people's ideas about wildlife and how individuals relate to other species (Lopes-Fernandes & Frazão-Moreira, 2017). The theoretical assumptions in this paper are based on previous research into people's value orientations toward wildlife in North America, from data collected across several states in the western United States, a very different sociocultural setting to subsistence farmers in Sumatra. Therefore, we might expect very different responses to wildlife based on these distinct socioeconomic, cultural and demographic conditions.

We suggest integrating large-scale psychological investigation with an understanding of local cultural and sociodemographic contexts has the potential to be a powerful tool for developing effective landscape-wide and more local conservation strategies.

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