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# Invited Commentary

## Lessons for a changing world: a response to comments on Wong and Candolin

Bob B.M. Wong[a] and Ulrika Candolin[b]

[a]School of Biological Sciences, Monash University, Victoria 3800, Australia and [b]Department of Biosciences, University of Helsinki, 00014 Helsinki, Finland

Human-induced environmental change and its consequences for animal behavior can have important repercussions. And not just for the survival of species. There are critical lessons for behavioral ecologists too, especially in the way we approach our research and how we might contribute to practical conservation and management outcomes. These are the common themes running through the 5 commentaries written in response to our review (Wong and Candolin 2014).

As more and more behavioral ecologists are drawn to the topic, several of the authors warn against simply gravitating to what we are already familiar with (Sih et al. 2015) or, worst, being seduced by what is popular (Slabbekoorn 2015). Instead, they argue for a more strategic, targeted approach. We agree. As Sih et al. (2015) explain, if it is the ecological impact that we are interested in uncovering, then we should really be using ecology to guide us in our research. Encouragingly, an increasing number of researchers appear to be doing just that, including examples of studies prioritizing their focus on the behavior of keystone species or ecosystem engineers (Ringler et al. 2015), or interactions between multiple human impacts (Nowicki et al. 2012; Da Silva et al. 2014).

Another important endeavor is to work toward developing a more predictive theory of the effects that altered behaviors might entrain (Blumstein 2015; Sih et al. 2015; Sol and Maspons 2015). In this respect, behavioral ecologists could be contributing far more into predicting the consequences of human activities than we are currently doing. Sih et al. (2015) argue that this does not necessarily mean "reinventing the wheel," with the authors pointing out how we might be able to draw on existing behavioral ecology theory (see also Sih et al. 2011; Sih 2013). At the same time, Sol and Maspons (2015) highlight the potential benefits that can also be gained from looking beyond our own discipline and the value of embracing a more integrative approach. In any case, working toward predictive theories will be critical if we are to accurately forecast the fate of species under human-induced environmental change.

The role of behavioral ecology in conservation and management has been the subject of considerable discourse (Caro 1998; Blumstein and Fernandez-Juricic 2010; Buchholz and Hanlon 2012), and the commentaries of Caro (2015) and Blumstein (2015) provide yet another timely reminder of the many opportunities that lie at the intersection of behavioral ecology, conservation biology, and wildlife management. Caro (2015) expresses understandable frustration at the reluctance of behavioral ecologists to embrace these opportunities and the myopia in recognizing the critical roles we could all be playing. Whatever may be the underlying cause of the reticence (Caro and Sherman 2013), this surely must change. Advocacy and the practical application of behavioral knowledge need to be embraced as an integral part of our work.



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Address correspondence to B.B.M. Wong. E-mail: bob.wong@monash.edu.

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