

Commentary to *The economic origins of ultrasociality* by John Gowdy and Lisi Krall, in press in *Behavioral and Brain Sciences*

Differences in autonomy of humans and ultrasocial insects

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Abstract: The target article is built on an analogy between humans and ultrasocial insects. We argue that there are many important limitations to the analogy that make any possible inferences from the analogy questionable. We demonstrate the issue using an example of the difference between a loss of autonomy in humans and in social insects.

Gowdy & Krall (G&K) build their article on an analogy between humans and ultrasocial insects. While we agree that humans and ultrasocial insects share some common features and that the analogy can be sometimes illuminating, it more often breaks down than not. Although G&K passingly acknowledge differences between humans and other ultrasocial species and note exceptions and limitations to the analogy, the exact pattern of these limitations is unclear. Therefore, any knowledge of ultrasocial insects cannot be reliably applied to humans and vice versa – the analogy lacks predictive power, which turns any possible inferences based on it into mere speculations. The lack of predictive power also poses a problem for any critical commentary because it is often hard to pinpoint the implications of authors' arguments. Even though the shortcomings of the analogy are present throughout the target article we illustrate them here focusing only on the difference in autonomy between humans and ultrasocial insects.

G&K believe that ultrasociality led to “the suppression of individual autonomy” (sect. 1). They don't define the concept of autonomy, although they often discuss it in relation to

sacrifice of individual interests for the good of a group. While there may be some superficial similarities in the suppression of autonomy in humans and social insects, we believe that the differences are more fundamental.

We agree that individual interest is secondary to interests of a group in social insects, but this is true even for species that have not reached ultrasociality, as defined by the authors. This shows that the loss of autonomy precedes ultrasociality in insects instead of being brought by it. In humans, ultrasociality is reached by groups of autonomous individuals who are able and motivated to seek their own self-interest. Stability of these groups is achieved by moral norms that limit self-interest and enable cooperation and coexistence among non-kin members (Haidt 2008).

One could argue that moral norms cause a loss of autonomy similar to the loss of autonomy in social insects. However, only some moral norms present in humans are focused specifically on promotion of group interests. In terms of the moral foundations theory (Graham et al. 2013), those are the so-called binding foundations: loyalty, authority, and sanctity. Despite the fact that these moral foundations focus on subjugation of an individual to a group, people can usually choose the group to which they want to subjugate themselves. More importantly, other essential aspects of human morality cannot be subsumed under the three binding foundations. Concerns about individual well-being and rights of others are captured by the moral foundations of harm and fairness. Although these foundations also help coexistence in groups, they can easily form a basis for behavior that goes against group interest, for example, when the rights of individuals outside of one's group are respected and help is provided regardless of group membership. This behavior can be seen especially in developed societies where division of labor (one of ultrasociality characteristics) is more prominent.

Moreover, moral norms do not eliminate self-interest completely; people are still aware of the possibilities of their own gains at the expense of others, but they usually decide to forgo such opportunities. And various findings in social and moral psychology suggest that the salience of self and personal identity is important for acting morally – people sacrifice themselves for a group (Swann et al. 2010) and cheat less (Mazar & Ariely 2006) when their self is made salient, and they act more selfishly when they are a part of a large anonymous group (Brewer & Kramer 1986; Milinski et al. 2002).

Furthermore, sacrifice of a personal benefit is seen as exhibition of extraordinary personal qualities, not as a strict obligation (Janoff-Bulman et al. 2009). This is supported by our recent study (Bahník & Vranka 2015), which suggests that self-sacrifice for a group is considered virtuous and praiseworthy, but not normative or obligatory. An inherent respect for the autonomy of others when making self-sacrificial decisions is further demonstrated by the finding that people judge sacrifice of another person as morally worse than self-sacrifice (Bahník & Vranka 2015), and that people are less willing to sacrifice strangers than their close relatives and friends (Kurzban et al. 2012). G&K acknowledge some limitations of the analogy between ultrasocial insects and humans. For example, they write that the loss of autonomy in humans was less extreme and mediated by culture, and that humans often resist subjugation to a group. While G&K seem to discount these differences between humans and ultrasocial insects, we believe that they are of utmost importance. It is unclear that knowledge of the loss of autonomy in insects is still applicable to humans if culture, customs, and social institutions are taken into account. While we have focused only on the differences concerning the loss of autonomy, a similar analysis of the effect of norms, culture, and human reasoning could be applied to other aspects of the analogy with a similar result.

References[Marek Vranka and Štěpán Bahník][MV]

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