Behavioral Ecology Advance Access published June 29, 2015

Behavioral Ecology

The official journal of the ISBE International Society for Behavioral Ecology

Behavioral Ecology (2015), 00(00), 1–1.

Invited Commentary

The many sides of the periovulational coin: comment on Havliček et al.

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Havliček et al. (2015) discuss the possibility that men's increased attraction to periovulatory women and women's cyclic shifts in preference for certain male traits may not constitute adaptations per se, but might instead be inevitable by-products of putative adaptations related to between-individual differences in reproductive potential. This is an interesting approach and has prompted us to reflect on aspects of our own studies. In the following, we outline some thoughts that have emerged from our reflections, which call for a more differentiated view on what may be spandrels and what may be adaptations. We then propose an alternative explanation for why women might appear to look more attractive during the periovulatory phase of their menstrual cycle.

The periovulatory paradigm is a 2-sided coin: any observable change between 2 specific cycle phases could be driven by the one or the other phase (baseline problem). If, for example, women report to be more convivial during the periovulatory phase compared with the luteal phase, this could be because women are more outgoing around ovulation. Alternatively, women might be more reserved and safety seeking during the luteal phase. Given that during the luteal phase a woman's body prepares for potential pregnancy, any risk-avoiding behavior would seem adaptive while there might be no direct advantage in being more sociable around ovulation. What might seem a spandrel when looking at one phase might make perfect adaptational sense when looking at the other.

Furthermore, we see the need to differentiate between what may or may not be adaptations for men versus what may or may not be adaptations for women. From a man's perspective, a healthy and feminine (i.e., attractive) appearance will always be important because cues to health and femininity putatively signal reproductive potential. Insofar we agree with the authors that most men will readily pick out attractive women in a busy room. We also agree that the task would be much more difficult when asked to pick out ovulating women in the same busy room. While it is highly adaptive for men to recognize cues to potential fertility (irrespective of cycle phase), there is arguably no need for an adaptation that enables men to discriminate ovulating from nonovulating women in a group of women they meet for the first time. It may however be of adaptive value for men to be able to track the fertility window of their own (long term) partner (minimize cuckoldry risk, maximize reproduction). But such ability may rest on behavioral rather than on purely physical cues, as we will suggest below. For women on the other hand, it is not always of equal importance to be attracted to the most masculine men. It may instead be advantageous to be attracted to healthy and strong men while fertile and to seek more feminine traits in a partner during the luteal phase. Such opportunistic mating strategies afford that a woman adjusts her behavior to the situational circumstances. Behavioral adjustments in turn require that a woman is (unconsciously) aware of her menstrual cycle.

In a series of studies from our own lab (e.g., Bobst and Lobmaier 2012, 2014), we found that men preferred the ovulatory woman over women in their luteal phase in a forced-choice paradigm (very similar to Roberts et al. 2004). Notwithstanding the justified criticism that forced-choice paradigms in no way resemble situations in the real world, we note that we found no evidence that differences in estradiol may explain why ovulatory women appear to be more attractive. This is in conflict with Havliček et al.'s suggestion that men's preference for portraits of ovulatory women may be a by-product of a general preference of women with high estradiol levels. Shifts in apparent attractiveness may instead result from subtle behavioral changes: during ovulation, women may have been flirting with the camera more, resulting in more charismatic portraits. We suggest that women's changes in attractiveness, preferences, and behavior across the menstrual cycle are not necessarily spandrels, but instead may originate in subtle appetitive changes in the woman. Because a woman can reproduce only during the fertile window of her cycle, it is conceivable that her appetite for sex may increase subtly around ovulation, and this increased appetite may indeed be an adaptation.

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Received 3 June 2015; accepted 8 June 2015.

doi:10.1093/beheco/arv097

Editor-in-Chief: Leigh Simmons

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