

## Courtship behavior: The Out-of-my-league effect

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Fabrice Le Lec, Theodore Alexopoulos, Béatrice Boulu-Reshef, Marie-Pierre Fayant, Franck Zenasni, et al.. Courtship behavior: The Out-of-my-league effect. Behavioral and Brain Sciences, 2017, 40, pp.e32. 10.1017/S0140525X16000534 . halshs-01476515

## HAL Id: halshs-01476515 https://shs.hal.science/halshs-01476515

Submitted on 11 Apr 2017  $\,$ 

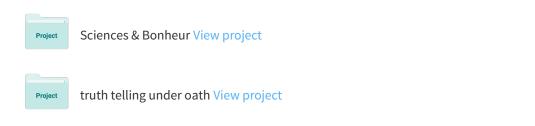
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Article in Behavioral and Brain Sciences · May 2016

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### Courtship behavior: "The Out-of-my-league effect"

Fabrice Le Lec, Théodore Alexopoulos, Béatrice Boulu-Reshef, Marie-Pierre Fayant, Franck Zenasni, Todd Lubart, Nicolas Jacquemet<sup>1</sup>

Comment on Maestripieri, Henry, Nickels: Explaining financial and prosocial biases in favor of attractive people: Interdisciplinary perspectives from economics, social psychology, and evolutionary psychology", forthcoming in Behavioral and Brain Sciences.

To explain financial and prosocial biases towards attractive adults, Maestripieri et al. defend a "strategic mating behavior" account. Their central argument relies on a causal relationship between viewing attractive individuals (A); a host of cognitive, emotional, and physiological changes (B); and financial/social generosity or other desirable behaviors (C). Yet, their reasoning is based on data from a collection of different experimental studies, and one cannot reliably determine how much (if any) of the effect of A (e.g., attractiveness) on C (e.g., financial decision) is actually explained by B (e.g., testosterone). Their review provides therefore no definitive evidence that mating motives or their proxies (e.g., physiological changes) are the actual causes of an attractiveness bias. There are in fact theoretical reasons to doubt the accuracy of a causal effect. This comment will focus on the idea that strategic mating behavior does not generally imply that favors should increase with attractiveness: a phenomenon we label the *out-of-my-league effect*.

The target article's argumentation is grounded on a mating model in which only the benefits of mating with attractive people are considered. This completely overlooks the effect of the probability of success in mating: A simple model of courtship behavior should take into account not only the benefit of mating with an attractive individual, but also the probability of doing so – itself determined by the mating opportunities of others. The potential "court maker," if motivated solely by mating per se as hypothesized, faces a trade-off between the benefit of mating and the probability of success: Whereas the former increases, the later realistically decreases with the attractiveness of the target. For a given attractiveness of the court maker, attractiveness-based matching implies that the probability of success decreases with the attractiveness. If the probability of success decreases more steeply than the benefit of mating increases given the potential mate's attractiveness, then the more attractive the potential mate, the lower the expected benefit of a match – that is, the benefit of a match weighted by its probability of occurrence. The out-of-my-league hypothesis states that one should not spend resources to court a very

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attractive potential mate with a minimal probability of success but rather prefer a moderately attractive one with a reasonable chance of success. In a nutshell: To mate or not to mate is not the question, but rather with whom.

In fact, at the population level, "smart" courtship behavior is more likely to lead on average to a bias towards average-looking individuals: If the distribution of attractiveness is concentrated around its mean (such as in a normal distribution for example), individuals will most likely favor moderately rather than highly attractive mates. In terms of strategy, the average court-making agent is better off targeting individuals of intermediate attractiveness. Not only is it the rational strategy, but it is also the fittest one from an evolutionary standpoint: An individual systematically favoring much more attractive individuals than herself is less likely to mate, and this behavioral pattern is more likely to disappear from the population by evolutionary pressure. This explains the opportunity costs associated with trying to mate with very attractive individuals, which is largely excluded from Maestripieri et al.'s analysis.

In other words, there is no guarantee that the relationship between the level of effort by the courter will be monotonic with the attractiveness of the potential mate – quite the reverse may occur, because positive assortative matching implies that "birds of a feather flock together" (McPherson et al. 2001). The courtship explanation, implicitly based on an endogenous matching model, thus has implications at odds with the set of empirical facts it aims to explain. A complete model of endogenous mating is needed to understand the evolutionary explanation. Such a model has to account not only for the effect of attractiveness on individuals' decision making (as does the target article), but also for the general equilibrium implications of such mating behaviors that are distortions in the probability that mating is actually achieved given the relative attractiveness of the partners.

As mating motives do not necessarily explain the attractiveness bias, it appears premature to reject economic and social psychological explanations. Indeed, the main argument for favoring a mating-based over a stereotype-based account relies on a gender moderation of the attractiveness bias. However, such moderation can be easily explained, for example, from a social psychological perspective. The *opposite-sex* beauty premium effect could simply reflect stereotypic processes. Although the authors reject these based on the fact that an attractiveness bias occurs even when controlling for personality traits and independently from stereotype-induced expectations, one must distinguish the stereotype content from its accuracy and actualization in reality (Judd & Park 1993). Furthermore, as stereotypes operate most of the time on an unconscious level and their influence cannot be captured through explicit self-reports, the reviewed evidence is not a valid rebuttal of a stereotype-

based explanation. Moreover, the same-sex negative bias could reflect self-threat because of comparisons and/or competition with attractive individuals. A possible self-threat regulation strategy (among others) relies on derogation and destructive behaviors towards attractive individuals. Such counterproductive responses to threatening comparisons occur routinely in the workplace (Lam et al. 2011). To protect their work environment from negative comparisons, individuals can even provide poor hiring recommendations (Garcia et al. 2010). Crucially, the attractiveness gender bias appears only for individuals who are sensitive to negative comparisons, whereas the rest show a gender-independent attractiveness bias (Agthe et al. 2014).

Although Maestripieri et al.'s "strategic mating behavior" account is scientifically attractive, we shed light on a theoretical argument that goes against their preferred explanation. As the out-of-my-league demonstration suggests: "One's man meat is another man's poison."

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