

Decision Making in Mate Choice: Prospecting for Potential Mates

Peter M. Todd (pmtodd@indiana.edu)

Cognitive Science Program, Indiana University, Bloomington, IN 47405 USA

Skyler S. Place (ssplace@indiana.edu)

Department of Psychological and Brain Sciences, Indiana University, Bloomington, IN 47405 USA

Keywords: psychology, decision making, evolutionary psychology, cross-cultural analysis, human experimentation

The choice of a life-partner is an important decision for any individual. This choice begins with a search for potential mates (Miller & Todd, 1998; Todd, Billari, & Simão, 2005). As it is impossible to interact with every possible prospective suitor, it is adaptively important to target your courtship efforts efficiently, by knowing who is interested in you, and who is interested in others. Correctly perceiving interest is useful not only for choosing a mate but also for determining one's own mate value (Simão & Todd, 2002), which is important for future mating decisions (Todd, Penke, Fasolo, & Lenton, 2007). Additionally, knowing about interest among your peers allows you to discover who the popular individuals are, and can lead to mate choice copying, where an individual purposely chooses a mate they have seen others choosing (Place, Todd, Penke, & Asendorpf, submitted).

We have tested this ability to judge romantic interest by having naïve observers watch videos of individuals on speed-dates (Place, Todd, Penke, & Asendorpf, 2009) and predict the outcomes of the dates. Speed-dating is a way for people to meet a large number of prospective partners in a short period of time, by going on sequential short dates with members of the opposite sex, in a manner that mirrors the extended mate search humans and other animals perform (Lenton, Fasolo, & Todd, 2009). We found that observers can accurately predict when men are interested in their dates, but have more trouble predicting when the women are interested. Surprisingly, the observers are able to perform this task without any knowledge of what is being said – videos are of speed-daters from Berlin speaking in German, and observers are English-speaking American college students.

Here we present new findings that extend this research. Cross-cultural data replicating our 2009 study with both German and Chinese participants allows us to see if language comprehension increases performance, and if less exposure to Western culture decreases performance. Additionally, new eye-tracking data demonstrates patterns of differential attentional deployment during this observational task. Our unique stimuli set of videos of actual mate choice interactions allows us to ask questions and design experiments that have previously been unavailable to researchers, such as whether highly accurate observers attend more to the non-verbal cues presented by

the men in the videos, or focus on the harder-to-read coy responses of the females.

Acknowledgements

Skyler Place's research is supported by Indiana University's Cognitive Science Program, Center for the Integrative Study of Animal Behavior, and Department of Psychological and Brain Sciences.

References

Lenton, A. P., Fasolo, B., & Todd, P. M. (2009). The relationship between number of potential mates and mating skew in humans. *Animal Behaviour*, 77(1), 55-60.

Miller, G. F., & Todd, P. M. (1998). Mate choice turns cognitive. *Trends in Cognitive Sciences*, 2(5), 190-198.

Place, S. S., Todd, P. M., Penke, L., & Asendorpf, J. B. (2009). The ability to judge the romantic interest of others. *Psychological Science*, 20(1), 22-26.

Place, S. S., Todd, P. M., Penke, L., & Asendorpf, J. B. (submitted). Humans show mate copying after observing real mate choices.

Simão, J., & Todd, P. M. (2002). Modeling mate choice in monogamous mating systems with courtship. *Adaptive Behavior*, 10(2), 113-136.

Todd, P. M., Billari, F., & Simão, J. (2005). Aggregate age-at-marriage patterns from individual mate-search heuristics. *Demography*, 42(3), 559-574.

Todd, P. M., Penke, L., Fasolo, B., & Lenton, A. P. (2007). Different cognitive processes underlie human mate choices and mate preferences. *Proceedings of the National Academy of Sciences*, 104(38), 15011-15016.