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Mate preferences for educated partners: Similarities and differences in the sexes depend on mating context☆

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ABSTRACT

Evolutionary and sociocultural models of mate preferences suggest that education might be an important consideration for men and women, but this research is characterized by several limitations warranting more research. In this experiment ($N = 1306$), we focused on the impact of relative levels of education on the desirability of potential long-term and short-term mates, while holding physical attractiveness constant, and also examining the potential moderating influence of interpersonal warmth. Both sexes preferred mates of equal education (compared to less or more), for both relationship durations, but particularly for long-term mates. Men found less educated and interpersonally cold targets more appealing in the short-term context. Overall, men found targets more appealing than women did across both mating contexts. Our results replicate and extend research on the role of partner's education in people's mate preferences.

1. Introduction

Considerable evidence suggests people value relationship partners who are intelligent or educated. Sapiosexuality has been identified as a trait predicting mate preferences for educated partners (Gignac, Darbyshire, & Ooi, 2018) and higher IQ or education leads to more desirability in self-report (Prokosch, Coss, Scheib, & Blozis, 2009), speed dating (Kurzban & Weeden, 2005), personal ads (Pawlowski & Koziel, 2002), and online dating studies (Lin & Lundquist, 2013). People may value education in their partners because it may reflect genetic quality (Miller, 2000) and competence in daily life (Lam & Kirby, 2002). In addition, when female partners have less education and the male partners have more education, they report greater relationship stability (Bereczkei & Csanaky, 1996). However, some doubt has been cast on the importance of education in mate choice in men and women (Karbowski, Deja, & Zawisza, 2016; Park, Young, & Eastwick, 2015). Unfortunately, this body of research is often correlational (DiPrete & Buchmann, 2006; Gignac et al., 2018), may confound intelligence with competition, does not consider mating context (Park et al., 2015), has operated with weak operational definitions of "intelligence" which has lay and scientific uses (Jonason et al., 2019), and may have limited ecological validity by focusing on IQ scores (Prokosch et al., 2009)[1] and absolute as opposed to relative education (Townsend & Levy, 1990; Townsend & Roberts, 1993). In this study, we use the person-perception method to replicate, extend, and (hopefully) address these limitations to better reveal the importance of education in mate choice.

When making mating decisions, people consider their ideals (Campbell, Simpson, Kashy, & Fletcher, 2001; Fletcher & Simpson, 2000; Fletcher, Simpson, Thomas, & Giles, 1999) and their dealbreakers (Jonason et al., 2015; Watson et al., 2004). People may engage (implicitly or explicitly) in a balancing of benefits and costs when evaluating with whom to date and have sex. It is likely the costs of dating someone less educated outweigh any benefits, leading to a generally limited desirability of such targets. Those who are more educated may possess a desirable quality but may pose ego threats and may have many other suitors, leading to little more appeal than a similarly educated partner (i.e., law of diminishing returns; Samuelson & Nordhaus, 2001). Partners who are similarly educated may represent an optimum balance of positives and negatives, making this partner the most

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[1] Except when made explicit on dating sites, but doing so may undermine mating success by advertising arrogance and elitism (Jonason, Garcia, Webster, Li, & Fisher, 2015).

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desirable (Jonason et al., 2019; Lin & Lundquist, 2013) and explaining why homogamy leads to greater relationship stability (Buss, 1985). However, this pattern may depend on other key considerations.

There are observable sex differences and similarities in mate preferences. Two predominant paradigms have emerged to account for these sex differences, both with evidence to support their claims (see Li & Meltzer, 2015; Zentner & Eagly, 2015). Sociocultural theories suggest that sex differences are artifacts of gender stereotypes, patriarchal power systems, or structural/economic differences (Buss & Barnes, 1986; Eagly, 1987; Eagly & Wood, 1999). In contrast, evolutionary theories suggest that sex differences are the result of recurrent selection pressures in the evolutionary past that reflect asymmetries in minimum obligation to offspring for the sexes (Kenrick, Groth, Trost, & Sadalla, 1993; Trivers, 1972). Whoever is right, a useful way to understand sex differences in mate preferences is to understand how the sexes make mating decisions in the short-term and long-term contexts (Buss & Schmitt, 1993). The level of investment people have in relationships should influence their decision-making. When both sexes invest heavily, as is the case for long-term relationships like marriage, both sexes have a vested interest in choosing a partner who is high in value but also unlikely to abandon the relationship (avoiding sunk costs), therefore, men and women should both desire a long-term partner who has similar education as they do. In contrast, men and women do not invest equally in short-term relationships. Women are exposed to more risk at the social and sexual level (Koehn & Jonason, 2018) than men are which may lead women to be have short-term mate preferences that resemble their long-term preferences. In contrast, men are socially permitted more freedom to engage in casual sex than women are and have a lower minimum obligation to offspring, leading men to have short-term mate preferences that prioritize other traits than their partner's education. Men may be willing to lower their standards in level of education for a short-term mate because what they really care about in this context is physical attractiveness (Li & Kenrick, 2006). Therefore, we expect women's mate preferences for educated mates to be relatively less sensitive to mating context than men's are and that in the short-term context, men will desire a less educated partner as compared to the long-term context.

Mating decisions are not based on a single trait, but, instead, are the result of how several factors interact and are integrated (Jonason, Raulston, & Rotolo, 2012; Li, Bailey, Kenrick, & Linsenmeier, 2002). Two important traits that we will consider are physical attractiveness and interpersonal warmth (Campbell et al., 2001; Fletcher et al., 1999). Physical attractiveness is an important quality for both sexes but only in so much as people typically desire to have a partner who is sufficiently appealing to them (Regan, Levin, Sprecher, Christopher, & Gate, 2000; Stewart, Stinnett, & Rosenfeld, 2000) and once that is reached, people begin focusing on other qualities (Jonason et al., 2019; Li & Kenrick, 2006). However, people may make stereotypical judgments of people's attractiveness based on target's level of education (e.g., halo effects) which would then lead to mate preferences based on those stereotypical judgments. Like inferred judgments of target's physical appearance, people may also infer judgments about their personality. In particular, people may make sex-specific inferences about how interpersonally warm someone is based on their education (Eckes, 2002; Fiske, Cuddy, Glick, & Xu, 2002; Karbowski et al., 2016; Koenig & Eagly, 2014). Therefore, we hold the physical attractiveness of the target constant and manipulate levels of interpersonal warmth to better isolate the role of education in mate choice.

How do individual differences in relative education influence people's mating decisions? In this study we examine how self-referential differences in the education of targets influence the long-term and short-term desirability of mates in men and women. We improve on prior research by holding target's physical attractiveness constant and manipulating interpersonal warmth to better isolate the importance of this variable. We also improve on prior research through the use of experimental (albeit simple) methods in a large sample and add some degree of ecological validity by focusing on relative education over absolute IQ scores.

2. Method

2.1. Participants and procedure

The sample was comprised of 1306 American (52% female), online participants who were paid US$0.25 through Mechanical Turk.[2] The average participant was 37.07 years old (*SD* = 12.09, *Range* = 18–87), European/white (74%), heterosexual (85%), in a committed relationship (71%), and had a Bachelor's degree as their highest level of education (41%).[3] The necessary sample size (*N** = 648) was determined by an *a priori* power analysis using *G*-power (Faul, Erdfelder, Lang, & Buchner, 2007), with an expected small effect (*f*) of 0.10 (e.g., Jonason et al., 2019; Pawlowski & Koziel, 2002), an alpha set at 0.05, and power set at 0.95. However, because of an unknown technical error with the service, we were able to get twice as many participants, leaving us with approximately 100 participants for each of the 12 cells. We include the full sample to maximize power.

Participants were informed of the nature and length (i.e., 5 min) of the study, completed a simple, between-subjects, person-perception study, a demographics survey of the aforementioned details, and, at the end, were thanked and debriefed. All participants (i.e., within-subjects) rated the (order randomized) long-term (e.g., marriage) and short-term term (e.g., a casual sex partner) desirability (1 = *Extremely undesirable*; 5 = *Extremely Desirable*) for one gender-neutral (to control for sexual orientation effects) target who differed in relative education (i.e., less, equal, more; ≈33% each) and interpersonal warmth (i.e., not warm, warm; ≈50% each), but was "someone whom you find physically attractive." Participants were instructed to answer the question as if they were interested in having a partner. This study was approved by the ethics committee at Western Sydney University (H10499) and data can be found at the Open Science Foundation (https://io/w6grs).

3. Results

A mixed-model ANOVA with a 2 (participant's sex) × 3 (relative education) × 2 (interpersonal warmth) × 2 (mating context) design was tested. We summarize the lower-order effects and include the descriptive statistics in Table 1 (i.e., short-term relationships) and Table 2 (i.e., long-term relationships). We found no four-way interaction (F[2, 1290] = 1.50, p = .22, $\eta_p^2 < 0.01$) and no three-way interaction between mating context, agreeableness, and sex (F[1, 1290] = 1.27, p = .26, $\eta_p^2 < 0.01$) or mating context, relative education, and sex (F[2, 1290] = 0.59, p = .56, $\eta_p^2 < 0.01$). We did, however, find two other three-way interactions.

The first of these interactions was between mating context, agreeableness, and relative education (F[2, 1290] = 6.51, $p < .001$, $\eta_p^2 = 0.01$) and reflected two significant two-way interactions and a lack of one between mating context and sex (F[1, 1290] = 0.57, p = .45, $\eta_p^2 < 0.01$). There was a significant two-way interaction between mating context and agreeableness (F[2, 1290] = 134.94, $p < .001$, $\eta_p^2 = 0.10$), such that (see Fig. 1) people found disagreeable mates more appealing in the short-term than the long-term (t[647] = 9.31, $p < .001$) whereas the agreeable target was more desirable in the long-term than the short-term (t[657] = −6.93, $p < .001$). There was a significant interaction between mating context and relative education (F[2, 1290] = 15.30, $p < .001$, $\eta_p^2 = 0.02$),

[2] Four participants who failed to identify as "male" or "female" were excluded from analyses.

[3] ANCOVAs revealed that our effects were invariant to the level of education and relationship status of the participants. Therefore, results were reported without taking them into account further.

Table 1
Between- and within-subjects effects of participant's sex, relative education, and interpersonal warmth on short-term desirability.

	Mean (*SD*)			*F*	η_p^2
	Overall	Men	Women		
Overall desirability	3.55 (1.15)	3.68 (1.08)	3.42 (1.19)	15.91**	0.01
Level of education					
Lower	3.54 (1.11)	3.76 (0.95)	3.36 (1.20)	14.63**	0.03
Equal	3.60 (1.15)	3.62 (1.10)	3.58 (1.19)	0.11	0.00
Higher	3.49 (1.18)	3.65 (1.16)	3.34 (1.18)	7.56*	0.02
F	0.97	1.00	2.76		
η_p^2	0.00	0.00	0.01		
Interpersonal warmth					
Low	3.40 (1.12)	3.58 (1.03)	3.23 (1.17)	16.20**	0.02
High	3.69 (1.16)	3.77 (1.12)	3.60 (1.19)	3.54	0.01
F	19.90**	4.91*	16.43**		
η_p^2	0.02	0.01	0.02		

* $p < .05$.
** $p < .01$.

Table 2
Between- and within-subjects effects of participant's sex, relative education, and interpersonal warmth on long-term desirability.

	Mean (*SD*)			*F*	η_p^2
	Overall	Men	Women		
Overall desirability	3.46 (1.33)	3.55 (1.25)	3.37 (1.40)	6.17*	0.01
Level of education					
Lower	3.13 (1.33)	3.38 (1.15)	2.92 (1.43)	13.22**	0.03
Equal	3.70 (1.28)	3.67 (1.27)	3.75 (1.30)	0.41	0.00
Higher	3.55 (1.32)	3.59 (1.32)	3.50 (1.33)	0.52	0.00
F	22.22**	2.95	22.16**		
η_p^2	0.03	0.01	0.06		
Interpersonal warmth					
Low	2.83 (1.28)	3.03 (1.24)	2.64 (1.30)	15.52**	0.02
High	4.08 (1.06)	4.10 (1.01)	4.06 (1.11)	0.23	0.00
F	371.13**	140.92**	235.49**		
η_p^2	0.22	0.18	0.26		

* $p < .05$.
** $p < .01$.

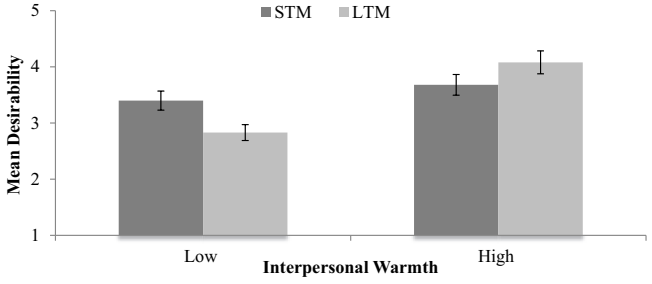

Fig. 1. High and low interpersonal warmth as a function of desirability in the short-term mating context (STM) and long-term mating context (LTM). Error bars represent the standard error of the means.

such that (see Fig. 2) targets who were less educated were more desirable as a short-term than a long-term mate (t[434] = 5.76, $p < .001$), with no simple effects in the equal (t[439] = −1.36, $p = .18$) or more (t[430] = −0.68, $p = .50$) educated condition.

The second of these interactions was between agreeableness, relative education, and sex (F[2, 1290] = 5.50, $p < .001$ $\eta_p^2 = 0.01$) and it reflected two significant two-way interactions and a third lack of interaction between agreeableness and relative education (F[2, 1290] = 0.22, $p = .80$, $\eta_p^2 < 0.01$). There was a significant two-way interaction between agreeableness and sex (F[1, 1290] = 8.04, $p < .001$, $\eta_p^2 = 0.01$), such that men and women did not differ (t

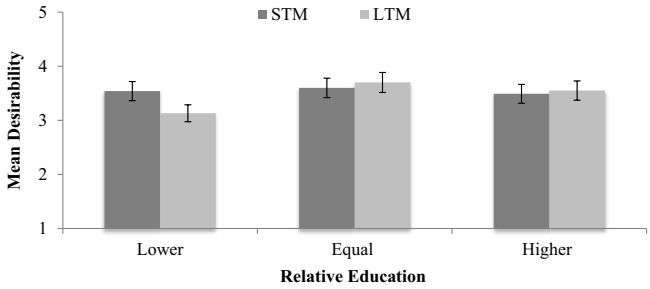

Fig. 2. The desirability of relative education levels as a function of short-term mating (STM) and long-term mating (LTM) contexts. Error bars represent the standard error of the means.

[653] = −1.62, $p = .11$) in how desirable they felt agreeable targets were, but men ($M = 3.31$, $SD = 0.82$) rated the disagreeable target slightly more desirable (t[645] = −5.30, $p = .051$) than women did ($M = 2.93$, $SD = 0.96$). The second two-way interaction was between relative education and sex (F[2, 1290] = 7.35, $p < .001$, $\eta_p^2 = 0.01$), such that men ($M = 3.57$, $SD = 0.77$) desired less educated mates more (t[432] = −4.73, $p < .001$) than women ($M = 3.14$, $SD = 1.07$); there were no sex differences for the desirability of equally (t[436] = 0.24, $p = .26$) and more (t[428] = −2.20, $p = .92$) educated targets.

In addition, there were several additional main effects worth reporting. People found the targets more desirable for a short-term than a long-term relationship (F[1, 1302] = 4.56, $p < .04$, $\eta_p^2 < 0.01$), probably because targets were described as physically attractive. People found agreeable ($M = 3.88$, $SD = 0.83$) targets more desirable than disagreeable targets ($M = 3.12$, $SD = 0.91$), regardless of mating context (F[1, 1290] = 256.88, $p < .001$, $\eta_p^2 = 0.17$). Equal education ($M = 3.65$, $SD = 0.91$) was the most desirable, followed by higher relative education ($M = 3.52$, $SD = 0.95$), and lower relative ($M = 3.34$, $SD = 0.97$) education respectively (F[2, 1290] = 13.87, $p < .001$, $\eta_p^2 = 0.02$) regardless of mating context. Men ($M = 3.61$, $SD = 0.86$) found targets more desirable than women did ($M = 3.40$, $SD = 1.02$) across both contexts (F[1, 1290] = 22.78, $p < .001$, $\eta_p^2 = 0.02$).

4. Discussion

Mating decisions have serious consequences in people's lives. Given this, researchers have focused on this topic for decades. In this study, we add to the literature surrounding mate preferences for intelligent or educated partners (Gignac et al., 2018; Jonason et al., 2019; Karbowski et al., 2016; Park et al., 2015; Prokosch et al., 2009) using a person-

perception method, manipulating the relative intelligence and interpersonal warmth of the targets, holding target's physical attractiveness constant, and examining desirability in the short-term and long-term relationship contexts. Specifically, we examined sex differences and similarities in mate preferences in how much individuals desire potential mates who were less, similar, and more educated than they were for casual sex and more serious relationships.

This conceptual replication and extension revealed several effects worthy of further consideration here. First, we found that an equally educated target was the most desirable partner for a long-term relationship for men and women which may reflect an optimum solution between the desire to maximize people's ideals and avoiding costs associated with dating less and more educated partners. An equally educated partner may maximize relationship stability, investment, and satisfaction (Buss, 1991). While a more educated partner might seem like the preferred option, this is only the case if we assume that people are maximizers. Instead, people may be looking for satisficing solutions for their long-term partners (Jonason et al., 2019).

Second, we found that women's mate preferences in level of education varied little as a function of how “serious” the relationship was, but men's did vary. Men found a partner who was less educated more desirable for a sexual as compared to a serious relationship. Because of the various modern (e.g., the sexual double standard; Marks & Fraley, 2005) and ancestral (e.g., single motherhood; Buss & Schmitt, 1993) costs associated with casual sex for women (Koehn & Jonason, 2018), women may be less free to have a sexual strategy that differs as a function of level of investment. In contrast, because men have traditionally had fewer restrictions on their sexuality than women do, they may be able to modulate their mate preferences in response to differences in the investment level in relationships. This effect might also be a methodological artifact of describing targets as physically attractive. Doing so may have activated men's short-term mate selection mechanisms more strongly than they did women's leading to this effect (Li et al., 2002; Li & Kenrick, 2006). However, the fact that this was localized to only one level of relative education suggests this might not be the case.

Third, we found that men were more willing to date or have sex with potential mates than women were in general. This might reflect their greater promiscuity (Schmitt, 2005), women's fears around the sexual double standard (Marks & Fraley, 2005), men's greater willingness to lower their standards in casual sex encounters than women's (Regan, 1998), and men's stronger sex drive (Baumeister, Catanese, & Vohs, 2001). Because this study was not about this particular issue, we did not include potential explanatory variables like sociosexuality. We cannot rule out the sexual double standard, but this effect has proven increasingly elusive over time (e.g., Jonason, 2007; Jonason & Marks, 2009) and the anonymity in the study should have minimized social desirability effects.[4] A greater willingness to lower one's standards and a greater sex drive in men may be part of the same, larger aspect of men's mating psychology that more strongly motivates their engagement in casual sex (Buss & Schmitt, 1993). However, this overall effect may be relatively uninteresting given the complexity of human sexuality.

Fourth, we found that interpersonal warmth did not interact with mate preferences in education but, instead, resembled them, in contrast to sociocultural work (Eckes, 2002; Fiske et al., 2002; Koenig & Eagly, 2014). It is possible that people make judgments about other's physical attractiveness based on their level of education, leading to halo and horn effects. However, we found no evidence of this. Instead, we found that while men and women wanted a long-term partner who was interpersonally warm, only men emphasized such warmth less when considering the short-term than the long-term context. This pattern is quite similar to the pattern for relative education, and suggests that women place a domain-general emphasis on being with a “nice” person whereas men may be more "flexible" in the emphasis they place on this trait when they are only considering having sex with someone. Again, this shift in men's priority may be partly driven by the ostensible methodological artifact created by holding physical attractiveness constant. That is, men may prioritize physical attractiveness over kindness in short-term mates (Li et al., 2002; Li & Kenrick, 2006), and what we found is replicating this.

4.1. Limitations and conclusions

Despite the methodological strengths of our study, it was limited in several ways. First, while we touched upon three traits, these are a fraction of all the traits people integrate to understand mate choice. However, integrating more than three traits into an experimental paradigm may lead to uninterpretable, higher-order interactions. Second, despite the large sample size, there is a remarkably small amount of variance being accounted for by education level, in particular. This suggests that while interesting, it is not all that important—statistically speaking—of a consideration in mate choice. Third, we suffer, like most relationship research does, from only sampling from a W.E.I.R.D. (i.e., Western, educated, industrialized, rich, and democratic; Henrich, Heine, & Norenzayan, 2010) population. Future research will need to test the cross-cultural robustness of our effects because there are surely places where formal education means little to people (e.g., tribal societies). Fourth, there may be individual differences beyond sex differences that help to elucidate the psychological mechanisms behind our effects like sociosexuality (Schmitt, 2005), mate value (Jonason et al., 2015), and propinquity (Jonason, Nolland, & Tyler, 2017). Last, although we tried to improve on the ecological validity of some of the experimental work on this topic, we still had participants make hypothetical judgments. Such judgements have been criticized as potentially not resembling actual mate choice (Eastwick & Finkel, 2008) but other evidence suggests that hypothetical judgments and actual mate choices are similar (Li et al., 2013).

As people spend more and more time getting educated, this trait may become more and more salient in people's mate choices. While some research exists on this topic, we wanted to address some limitations in that area (e.g., correlational v. experimental methods; absolute v. relative judgments). We revealed that women appear to value education across context more consistently than men do, but both sexes want a similarly educated partner in the long-term whereas men found less educated (physically attractive) partners more desirable as a sex than a relationship partner. There is a possibility that conflict between the sexes over education levels may be merely a function of men and women prioritizing different qualities in their long-term and short-term partners.

[4] We cannot say the online method completely eliminates this problem because it is possible women have internalized the sexual double standard.

References

Baumeister, R., Catanese, K., & Vohs, K. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review, 5*, 242–273. https://doi.org/10.1207/s15327957pspr0503_5.

Bereczkei, T., & Csanaky, A. (1996). Mate choice, marital success, and reproduction in a modern society. *Ethology and Sociobiology, 17*, 17–35. https://doi.org/10.1016/0162-3095(95)00104-2.

Buss, D. M. (1991). Conflict in married couples: Personality predictors of anger and upset. *Journal of Personality, 59*, 663–688 (doi: 0.1111/j.1467-6494.1991.tb00926.x).

Buss, D. M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology, 50*, 559–570. https://doi.org/10.1037//0022-3514.50.3.559.

Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100*, 204–232.

Campbell, L., Simpson, J., Kashy, D., & Fletcher, G. (2001). Ideal standards, the self, and flexibility of ideals in close relationships. *Personality and Social Psychology Bulletin, 27*, 447–462. https://doi.org/10.1177/0146167201274006.

DiPrete, T., & Buchmann, C. (2006). Gender-specific trends in the value of education and the emerging gender gap in college completion. *Demography, 43*, 1–24. https://doi.

org/10.1353/dem.2006.0003.
Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation.* Hillsdale, NJ: Erlbaumhttps://doi.org/10.4324/9780203781906.
Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist, 54*, 408–423. https://doi.org/10.1037//0003-066x.54.6.408.
Eastwick, P. W., & Finkel, E. J. (2008). Sex differences in mate preferences revisited: Do people know what they initially desire in a romantic partner? *Journal of Personality and Social Psychology, 94*, 245–264. https://doi.org/10.1037/0022-3514.94.2.245.
Eckes, T. (2002). Paternalistic and envious gender stereotypes: Testing predictions from the stereotype content model. *Sex Roles, 47*, 99–114. https://doi.org/10.1023/A:1021020920715.
Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). *G** power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175–191. https://doi.org/10.3758/BF03193146.
Fiske, S., Cuddy, A., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*, 878–902. https://doi.org/10.1037//0022-3514.82.6.878.
Fletcher, G., & Simpson, J. (2000). Ideal standards in close relationships. *Current Directions in Psychological Science, 9*, 102–105. https://doi.org/10.1111/1467-8721.00070.
Fletcher, G., Simpson, J., Thomas, G., & Giles, L. (1999). Ideals in intimate relationships. *Journal of Personality and Social Psychology, 76*, 72–89. https://doi.org/10.1037//0022-3514.76.1.72.
Gignac, G., Darbyshire, J., & Ooi, M. (2018). Some people are attracted sexually to intelligence: A psychometric evaluation of sapiosexuality. *Intelligence, 66*, 98–111. https://doi.org/10.1016/j.intell.2017.11.009.
Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*, 61–83. https://doi.org/10.2139/ssrn.1601785.
Jonason, P. K. (2007). A mediation hypothesis to account for the sex difference in reported number of sexual partners: An intrasexual competition approach. *International Journal of Sexual Health, 19*, 41–49. https://doi.org/10.1300/J514v19n0405.
Jonason, P. K., Garcia, J., Webster, G. D., Li, N. P., & Fisher, H. (2015). Relationship dealbreakers: What people do not want in mates. *Personality and Social Psychology Bulletin, 41*, 1697–1711. https://doi.org/10.1177/0146167215609064.
Jonason, P. K., & Marks, M. J. (2009). Common vs. uncommon sexual acts: Evidence for the sexual double standard. *Sex Roles, 60*, 357–365. https://doi.org/10.1007/s11199-008-9542-z.
Jonason, P. K., Marsh, K., Dib, O., Plush, D., Doszpot, M., Fung, E., ... Di Pietro, K. (2019). Is smart sexy?: Examining the role of relative intelligence in mate preferences. *Personality and Individual Differences, 139*, 53–59. https://doi.org/10.1016/j.paid.2018.11.009.
Jonason, P. K., Nolland, M., & Tyler, M. D. (2017). Incorporating geographic distance into mate preference: Necessities and luxuries of mate preferences. 2.0. *Personal Relationships, 24*, 585–597. https://doi.org/10.1111/pere.12199.
Jonason, P. K., Raulston, T., & Rotolo, A. (2012). More than just a pretty face and a hot body: Multiple cues in mate-choice. *The Journal of Social Psychology, 152*, 174–184. https://doi.org/10.1080/00224545.2011.586654.
Karbowski, A., Deja, D., & Zawisza, M. (2016). Perceived female intelligence as economic bad in partner choice. *Personality and Individual Differences, 102*, 217–222. https://doi.org/10.1016/j.paid.2016.07.006.
Kenrick, D. T., Groth, G., Trost, M., & Sadalla, E. (1993). Integrating evolutionary and social exchange perspectives on relationships: Effects of gender, self-appraisal, and involvement level on mate selection criteria. *Journal of Personality and Social Psychology, 64*, 951–969. https://doi.org/10.1037//0022-3514.64.6.951.
Koehn, M. A., & Jonason, P. K. (2018). Costs of short-term mating for women. In T. K. Shackelford, & V. A. Weekes-Shackelford (Eds.). *Encyclopedia of evolutionary psychological science*New York, NY: Springer. https://doi.org/10.1007/978-3-319-16999-6_3662-1.
Koenig, A., & Eagly, A. H. (2014). Evidence for the social role theory of stereotype content: Observations of groups' roles shape stereotypes. *Journal of Personality and Social Psychology, 107*, 371–392. https://doi.org/10.1037/a0037215.
Kurzban, R., & Weeden, J. (2005). HurryDate: Mate preferences in action. *Evolution and Human Behavior, 26*, 227–244. https://doi.org/10.1016/j.evolhumbehav.2004.08.012.
Lam, L. T., & Kirby, S. L. (2002). Is emotional intelligence an advantage?: An exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology, 142*, 133–143. https://doi.org/10.1080/00224540209603891.
Li, N. P., Bailey, J., Kenrick, D. T., & Linsenmeier, J. (2002). The necessities and luxuries of mate preferences: Testing the tradeoffs. *Journal of Personality and Social Psychology, 82*, 947–955. https://doi.org/10.1037//0022-3514.82.6.947.
Li, N. P., & Kenrick, D. T. (2006). Sex similarities and differences in preferences for short-term mates: What, whether, and why. *Journal of Personality and Social Psychology, 90*, 468–489. https://doi.org/10.1037/0022-3514.90.3.468.
Li, N. P., & Meltzer, A. L. (2015). The validity of sex-differentiated mate preferences: Reconciling the seemingly conflicting evidence. *Evolutionary Behavioral Sciences, 9*, 89–106. https://doi.org/10.1037/ebs0000036.
Li, N. P., Yong, J. C., Tov, W., Sng, O., Fletcher, G. J. O., Valentine, K. A., ... Balliet, D. (2013). Mate preferences do predict attraction and choices in the early stages of mate selection. *Journal of Personality and Social Psychology, 105*, 757–776. https://doi.org/10.1037/a0033777.
Lin, K. H., & Lundquist, J. (2013). Mate selection in cyberspace: The intersection of race, gender, and education. *American Journal of Sociology, 119*, 183–215. https://doi.org/10.1086/673129.
Marks, M. J., & Fraley, R. C. (2005). The sexual double standard: Fact or fiction? *Sex Roles, 52*, 175–186. https://doi.org/10.1007/s11199-005-1293-5.
Miller, G. F. (2000). Sexual selection for indicators of intelligence. *Novartis foundation symposium* (pp. 260–270). Chichester, NY: John Wiley. https://doi.org/10.1002/0470870850.ch16.
Park, L., Young, A., & Eastwick, P. (2015). (Psychological) distance makes the heart grow fonder. *Personality and Social Psychology Bulletin, 41*, 1459–1473. https://doi.org/10.1177/0146167215599749.
Pawlowski, B., & Koziel, S. (2002). The impact of traits offered in personal advertisements on response rates. *Evolution and Human Behavior, 23*, 139–149. https://doi.org/10.1016/S1090-5138(01)00092-7.
Prokosch, M., Coss, R., Scheib, J., & Blozis, S. (2009). Intelligence and mate choice: Intelligent men are always appealing. *Evolution and Human Behavior, 30*, 11–20. https://doi.org/10.1016/j.evolhumbehav.2008.07.004.
Regan, P. C. (1998). What if you can't get what you want?: Willingness to compromise ideal mate selection standards as a function of sex, mate value, and relationship context. *Personality and Social Psychology Bulletin, 24*, 1294–1303. https://doi.org/10.1177/01461672982412004.
Regan, P. C., Levin, L., Sprecher, S., Christopher, F. S., & Gate, R. (2000). Partner preferences: What characteristics do men and women desire in their short-term sexual and long-term romantic partners? *Journal of Psychology and Human Sexuality, 12*, 1–21. https://doi.org/10.1300/J056v12n03_01.
Samuelson, P.A., & Nordhaus, W.D. (2001). Microeconomics (17th ed.). New York, NY; McGraw-Hill. ISBN-10: 0071180664.
Schmitt, D. P. (2005). Sociosexuality from Argentina to Zimbabwe: A 48-nation study of sex, culture, and strategies of human mating. *Behavioral and Brain Sciences, 28*, 247–311. https://doi.org/10.1017/s0140525x05000051.
Stewart, S., Stinnett, H., & Rosenfeld, L. (2000). Sex differences in desired characteristics of short-term and long-term relationship partners. *Journal of Social and Personal Relationships, 17*, 843–853. https://doi.org/10.1177/0265407500176008.
Townsend, J. M., & Levy, G. D. (1990). Effects of potential partners' physical attractiveness and socioeconomic status on sexuality and partner selection. *Archives of Sexual Behavior, 19*, 149–164. https://doi.org/10.1007/BF01542229.
Townsend, J. M., & Roberts, L. W. (1993). Gender differences in mate preference among law students: Divergence and convergence of criteria. *Journal of Psychology, 127*, 507–528. https://doi.org/10.1080/00223980.1993.9914888.
Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.). *Sexual selection and the descent of man, 1871–1971* (pp. 136–179). Chicago, IL: Aldine (ISBN-10: 0202020053).
Watson, D., Klohnen, E. C., Casillas, A., Nus Simms, E., Haig, J., & Berry, D. S. (2004). Match makers and deal breakers: Analyses of assortative mating in newlywed couples. *Journal of Personality, 72*, 1029–1068. https://doi.org/10.1111/j.0022-3506.2004.00289.x.
Zentner, M., & Eagly, A. H. (2015). A sociocultural framework for understanding partner preferences of women and men: Integration of concepts and evidence. *European Review of Social Psychology, 26*, 328–373. https://doi.org/10.1080/10463283.2015.1111599.