



Short Communication

Attractive men's desirability as a long-term partner varies with ascribed excitement values

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ABSTRACT

Values guide behaviors and cognitively represent needs. Expressed values may provide relevant cues that affect mate selection. In particular, individuals endorsing excitement values (e.g., emotion, pleasure, sexuality) are more likely to commit infidelity. Therefore, a person's desirability as a long-term partner may be negatively affected by that person's endorsement of excitement values. To test this hypothesis, we conducted a 2 (sex) × 2 (ascribed values) × 2 (facial attractiveness) factorial design experiment. Participants were 80 individuals, aged between 17 and 48 years ($M = 24.1$, $SD = 5.61$), mostly heterosexual (93.8%). Participants rated how desirable the person depicted in the factorial scenarios is as a long-term partner, on a 6-point Likert scale (*undesirable*–*very desirable*). Attractive men's desirability as a long-term partner decreased when associated with excitement values, providing some support for evolutionarily informed hypotheses. We discuss results in light of evolutionary hypotheses of mate selection, highlighting limitations and identifying directions for future research.

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1. Introduction

Previous research has identified psychological traits that affect a person's desirability as a long-term partner (for a review, see Buss, 2015). Despite the voluminous literature linking psychological variables to desirability as a long-term partner, one set of psychological variables that has been relatively neglected in the mate preference literature is "values". A value is a unique psychological construct that guides behaviors and cognitively represents needs (Gouveia, 2003, 2013; Gouveia, Milfont, & Guerra, 2014).

From an evolutionary psychological perspective, certain characteristics are perceived as desirable because they were linked ancestrally with benefits for the selecting individual (Little, 2015). Because a partner's infidelity is costly to both men and women, they are likely to perceive as more desirable attributes that indicate a greater likelihood of fidelity (Buss & Schmitt, 1993). A man whose partner is sexually unfaithful risks cuckoldry (i.e., unwitting investment in a child to whom he is genetically unrelated; Buss & Shackelford, 1997), and a woman whose partner is emotionally unfaithful risks losing partner-provisioned resources (Buss, 2015). Therefore, psychological traits that serve as cues of greater

likelihood of infidelity are predicted to affect negatively one's desirability as a long-term partner (Buss & Schmitt, 1993). Schmitt et al., 2012 found that infidelity is associated with low agreeableness and low conscientiousness, and these traits are perceived as unattractive for both men and women (Meier, Robinson, Carter, & Hinsz, 2010).

Because infidelity carries great costs for the selecting partner (Buss, 2015), prospective partners endorsing values that suggest a greater likelihood of infidelity are predicted to be less desirable as long-term partners. What kind of values may affect a person's desirability as a long-term partner? One possible answer is "excitement values". According to Gouveia (2013), excitement values (e.g., emotion, pleasure, sexuality) represent the need for gratification and variety, and contribute to the endorsement of change and innovation in the structure of social organizations. Excitement values correspond to an interest in having stimulating experiences, whether emotional, intellectual, or sexual. Someone who endorses excitement values will tend to make decisions that allow them to experience greater excitement, relative to someone who does not endorse such values (Gouveia, 2013).

Individuals endorsing excitement values are more likely to engage in risk-taking activities, including alcohol abuse (Medeiros, Pimentel, Monteiro, Gouveia, & Medeiros, 2015) and infidelity (Guerra, Gouveia, Sousa, Lima, & Freires, 2012). Men who engage in high-risk activities may be attractive to women in a short-term sexual context (due to women's "quest for good genes that enhance offspring quality"; Sylwester & Pawlowski, 2011). In a long-term context, however, men engaging in risk-taking activities may be less attractive to the extent

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that risk-taking signals greater likelihood of infidelity, injury, and death (Buss, 2015). Similarly, women engaging in risk-taking activities may be less attractive as long-term partners to men because risk-taking signals greater likelihood of infidelity (Buss & Schmitt, 1993). Moreover, excitement values such as “pleasure” and “sexuality” may signal sexual promiscuity, and people who have had more sexual partners are more likely to be unfaithful in a long-term relationship than those who have had fewer sexual partners (Thompson, 1983). Additionally, the endorsement of excitement values may reflect poor mothering skills, in terms of risk to both mother’s and child’s health (e.g., alcohol abuse; Medeiros et al., 2015), which is unattractive to men (Buss, 2015). Therefore, excitement values expressed by a prospective long-term partner may be an unattractive feature for both sexes. Thus, we hypothesize that a person’s desirability as long-term partner will be negatively affected by that person’s endorsement of excitement values.

The goal of the current study was to investigate whether a person’s desirability as a long-term partner is affected by that person’s endorsement of excitement values. We conducted a 2 (sex: male, female) \times 2 (ascribed values: excitement, no values) \times 2 (facial attractiveness: highly attractive, unattractive) factorial design study. We controlled for facial attractiveness because physical features may affect a person’s desirability as long-term partner (Geldart, 2010).

2. Method

2.1. Participants

Participants were 80 heterosexual Brazilians, 17 to 48 years old ($M = 23.8$, $SD = 5.5$). Most were in a romantic relationship (56.4%). We invited prospective participants through messages on Brazilian Facebook groups. Participants were equally divided by the factorial combinations.

2.2. Instruments

Participants completed an on-line survey that included demographic questions (e.g., age, sex) and one scenario. Each scenario consisted of a highly attractive or an unattractive facial image, and a brief value description or no value description. The selection of facial images and the development of value descriptions are detailed in the Procedure. There were eight scenarios in total [2 (sex: male, female) \times 2 (facial attractiveness: highly attractive, unattractive) \times 2 (ascribed values: excitement, no values)]. Each participant was randomly presented one scenario that depicted an opposite-sex facial image. For example, one scenario for female participants was a highly attractive male facial image, followed by excitement values description. Another scenario for male participants presented an unattractive female facial image, followed by no values. Participants rated how desirable the person depicted in the image is as a long-term partner, on a 6-point Likert scale with 1 = Undesirable and 6 = Very desirable. All survey material was presented in Brazilian Portuguese.

2.3. Procedure

2.3.1. Facial images

To control for facial attractiveness, we first collected facial images via an on-line survey distributed on Brazilian Facebook groups. During this task, 264 participants selected both the least and most attractive opposite-sex Facebook profile images. Facebook users consented to have their images used by others at the moment they set them to “Public”, as stated by the Facebook’s Statement of Rights and Responsibilities. We then selected 160 images considering several criteria (see Appendix A). To arrange the attractiveness of faces along a continuous scale, 188 individuals indicated the extent to which each face was attractive on a 6-point Likert scale, with 1 = Unattractive and 6 = Very attractive. We then selected the five most and five least attractive images from each

sex, resulting in 20 faces. Because each participant had access to only one image of one factorial scenario in the study (see Instruments), the attractiveness level for each scenario was then the mean score of all respective five facial images. For more details, see Appendix A.

2.3.2. Excitement values description

We adapted the Basic Value Survey (Gouveia, 2003; see supplementary material) items into a brief narrative. The narrative had a female version and a male version, which were identical except for the individuals’ names (i.e. “Rodrigo” for men and “Renata” for women). The male version was “Rodrigo likes to live for the moment and to satisfy all his desires. He enjoys challenges and unknown situations, and is always looking for risky adventures. He needs to have frequent sexual intercourses to feel sexually satisfied.”

2.3.3. Data analysis

We conducted two two-way Analyses of Variance (ANOVA; “sex” and “ascribed values” as independent variables; and “desirability as a long-term partner” as dependent variable), one for the unattractive facial images, and one for the highly attractive facial images. We left “facial attractiveness” out of the ANOVA because its inclusion would inflate the main effects. We next conducted independent sample *t*-tests for specific interactions (i.e., simple slope tests).

3. Results

The results of the two-way ANOVA for unattractive images revealed a non-significant overall model [$F(3, 36) = 0.28$, $p > 0.05$; $\eta^2 = 0.02$], indicating that none of the independent variables (“sex” and “ascribed values”), or their interaction, affected the desirability as a long-term partner of unattractive individuals. The results of the two-way ANOVA for highly attractive images indicated a significant overall model [$F(3, 36) = 4.54$, $p < 0.01$; $\eta^2 = 0.27$]. For this model, the desirability as a long-term partner changed accordingly to sex [$F(1, 36) = 5.99$, $p < 0.05$; $\eta^2 = 0.14$], and ascribed values [$F(1, 36) = 5.98$; $p < 0.05$; $\eta^2 = 0.14$], but not their interaction [$F(1, 36) = 1.64$; $p = 0.21$; $\eta^2 = 0.04$].

To further investigate the interactions between variables for the highly attractive images (see Fig. 1), we conducted four independent-sample *t*-tests, one for each slope (i.e., simple slope tests). We divided α (i.e., *p*-value threshold) by four to correct for Type I error (Bonferroni correction). The first *t*-test revealed that male faces ascribed with excitement values ($M = 2.3$; $SD = 1.06$) were less desirable as a long-term partner ($t = 2.82$; $p < 0.05$, $\eta^2 = 1.3$) than male faces without ascribed excitement values ($M = 3.9$; $SD = 1.45$). The second *t*-test revealed no differences in desirability between female faces ascribed with excitement values and without ascribed values. The third *t*-test showed that, when ascribed with excitement values, male faces ($M = 2.0$; $SD = 1.38$) were rated as less desirable ($t = 1.59$; $p < 0.1$, $\eta^2 = 0.53$, marginally significant; Gelman, 2013) than female faces ($M = 2.9$; $SD = 1.95$). The fourth *t*-test revealed no differences in desirability between male and female faces without ascribed excitement values.

4. Discussion

The current study investigated whether a person’s desirability as a long-term partner is affected by that person’s endorsement of excitement values. The results are partially in line with expectations. The overall model for highly attractive individuals revealed that their desirability as a long-term partner varied as a function of sex, ascribed values, and their interaction. In line with evolutionary hypotheses of mate selection, the results indicated that male faces ascribed with excitement values were less desirable than male faces without ascribed excitement values, supporting our hypothesis that prospective partner’s endorsement of excitement values would affect negatively their desirability as a long-term partner. Because women prioritize psychological attributes

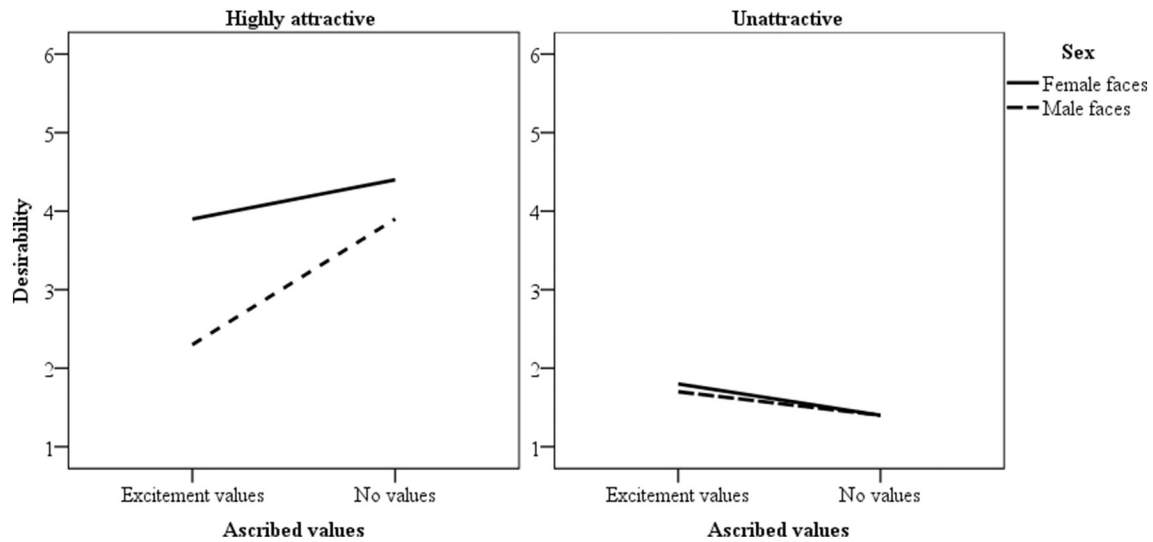


Fig. 1. Interaction plots between the effects of sex, ascribed values, and facial attractiveness on the desirability as a long-term partner.

over physical features in the long-term context (Williams, Fisher, & Cox, 2008), and because infidelity is costly to the regular partner (Buss & Schmitt, 1993), any psychological trait that signals higher likelihood of infidelity should be highly weighted in women's evaluation of men's desirability as a long-term partner. This may explain why this particular slope test showed the highest effect size among the simple slope tests.

Men's evaluation of women's desirability as long-term partners relies mostly on cues of parental investment (e.g., mothering skills; Buss & Schmitt, 1993) and of fertility (e.g., physical attractiveness; Schmitt et al., 2012). Because the endorsement of excitement values may reflect poor mothering skills, in terms of risk to the mother's and child's safety (e.g., failing to be there for her child), we expected the female faces ascribed with excitement values (vs. without ascribed excitement values) to be less desirable as a long-term partner. However, the results revealed no differences. Men are likely to perceive as more attractive women who display cues to greater fertility (Schmitt et al., 2012), and cues to fertility are related to physical characteristics (Sylwester & Pawlowski, 2011). Therefore, men base their selection on physical attributes more than on psychological traits. Certain psychological traits may not be powerful enough to affect men's evaluation of highly attractive women. This may explain why the desirability of female faces (vs. male faces) was more stable across the conditions (see Fig. 1).

The results revealed that, when ascribed with excitement values, male faces were less desirable than female faces. Women's evaluation of attractiveness, more than men's, is affected by psychological and social attributes (Geldart, 2010). Therefore, women (more so than men) may have given greater weight for excitement values in their assessment of a prospective partner's desirability as a long-term partner. Additionally, a meta-analysis including samples from different continents found that men reported more sexual experience and more permissive attitudes than women (Petersen & Hyde, 2010). Brazilian men commit infidelity more than Brazilian women (e.g., Abdo, 2004) – a phenomenon that can be generalized to other contexts (e.g. United States; Tidwell & Eastwick, 2013). Therefore, women, in general, and Brazilian women, in particular, may be more sensitive than men to any attribute that signals greater likelihood of infidelity.

Finally, the overall model for unattractive facial images did not reveal significant effects of sex, ascribed values, or their interaction in desirability as a long-term partner. This may be because the unattractive facial images were selected from the lowest percentile of the attractiveness score distribution (see 2.3 Procedure), which caused them to be

near the minimum on the scale ($M = 1.6$, $SD = 1.19$ for female images; and $M = 1.5$, $SD = 1.23$ for male images). This therefore may have caused a floor effect, i.e., excitement values were not able to affect the desirability of extremely unattractive individuals.

This study offers several contributions to the mate preferences literature. It was guided by a theory of values applicable in >50 countries (Gouveia et al., 2014), and provides empirical evidence that certain values affect a person's desirability as a long-term partner, and that these effects are sex-differentiated, using a non-American sample. This study may also encourage existing value theories to address evolutionarily-informed hypotheses of mate preferences, such as whether, which, and how values interact with mating criteria. This study has limitations. For instance, we did not control for participant's values. Controlling for participants' values can allow researchers to test relevant value-specific hypotheses, because individuals endorsing similar values may rate another one's desirability as a long-term partner higher than individuals endorsing different values (Gouveia, 2013).

Long-term mate preferences research may also have applied value. Understanding how values interact with a person's desirability as a long-term partner may be useful in developing educational programs, marital counseling, and marital therapy (e.g., by helping counselors to identify values that might affect marital satisfaction). In sum, attractive men's desirability as a long-term partner decreased when associated with excitement values, providing some support for evolutionarily-informed hypotheses.

Appendix A. Development of the facial images

Step 1—Collecting the facial images

We collected the facial images via an on-line questionnaire distributed in several Brazilian Facebook groups and pages. During this task, participants selected both the least and most attractive opposite-sex Facebook profile images. They could select the profile images from any Facebook profile page. Facebook users consented to have their images used by others at the moment they set them to "Public", as stated by the Section 2.4 of Facebook's Statement of Rights and Responsibilities. A total of 264 Facebook users participated in this step, aged 16 to 60 years ($M = 24.0$, $SD = 6.31$), mostly single (58.7%), heterosexual (89.4%), and female (62.5%). From this survey, we obtained 528 facial images.

Step 2—Filtering the facial images

We then selected 160 images considering seven criteria: a) the image should expose only the face; b) the face should not have accessories covering part of it or altering its physiognomy (e.g., makeup, sunglasses); c) the angle of the face should be such that it provides views of both ears; d) the horizontal line of the picture should have 110 pixels or more to ensure acceptable resolution quality; e) the facial expression should vary from seriousness to a slight smile; f) gaze should be directed toward the camera; and g) the apparent age of the target should vary from 18 to 35 years. The 160 images were equally divided by sex and attractiveness level.

Step 3—Parameterizing the facial images

To arrange the attractiveness of faces along a continuous scale, we developed female-targeted and male-targeted surveys. Each survey presented faces of the opposite sex (e.g., female participants responded to the male faces survey). The booklets had a randomized arrangement of faces to prevent exposure bias. Participants were instructed to indicate the extent to which each face was attractive on a 6-point Likert scale, with 1 = *Unattractive* and 6 = *Very attractive*. Participants from this step were 188 individuals, aged between 15 and 53 years ($M = 23.5$, $SD = 5.96$), mostly female (51.9%), single (48.9%), and heterosexual (90.6%). Accordingly, the 80 male faces and 80 female faces were distributed onto a continuous scale of attractiveness.

Step 4—Selecting the facial images

We then selected the five most and five least attractive images from each of the two groups (extreme percentiles of 6.25%). This resulted in 20 faces, equally divided into highly attractive men, unattractive men, highly attractive women, and unattractive women. Each participant had access to only one image of one factorial scenario. The attractiveness level for each group was then the mean score of all respective five facial images. This procedure prevented overall evaluations produced by reliance on a single facial image, thus preventing potential biases caused by variation in attractiveness that may be linked to changeable aspects of faces, given the images are not standardized (i.e., they were selected from a larger set of images taken from Facebook, and rated for attractiveness by participants who did not take part in the main study).

Appendix B. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.paid.2016.11.026>.

References

- Abdo, C. H. N. (2004). *Descobrimeto sexual do Brasil: para curiosos e estudiosos*. São Paulo, Brazil: Grupo Editorial Summus.
- Buss, D. (2015). *Evolutionary psychology: The new science of the mind*. New York, NY: Pearson.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, *100*(2), 204.
- Buss, D. M., & Shackelford, T. K. (1997). From vigilance to violence: Mate retention tactics in married couples. *Journal of Personality and Social Psychology*, *72*(2), 346.
- Geldart, S. (2010). That woman looks pretty, but is she attractive? Female perceptions of facial beauty and the impact of cultural labels. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, *60*(2), 79–87.
- Gelman, A. (2013). *P values and statistical practice*. *Epidemiology*, *24*(1), 69–72.
- Gouveia, V. V. (2003). A natureza motivacional dos valores humanos: Evidências acerca de uma nova tipologia [The motivational nature of human values: Evidence of a new typology]. *Estudos de Psicologia*, *8*(3), 431–443.
- Gouveia, V. V. (2013). *Teoria funcionalista dos valores humanos: Fundamentos, aplicações e perspectivas* [Functional theory of human values: Fundamentals, applications, and perspectives]. São Paulo, Brazil: Casa do Psicólogo.
- Gouveia, V. V., Milfont, T. L., & Guerra, V. M. (2014). Functional theory of human values: Testing its content and structure hypotheses. *Personality and Individual Differences*, *60*, 41–47.
- Guerra, V. M., Gouveia, V. V., Sousa, D. M., Lima, T. J., & Freires, L. A. (2012). Sexual liberalism–conservatism: The effect of human values, gender, and previous sexual experience. *Archives of Sexual Behavior*, *41*(4), 1027–1039.
- Little, A. C. (2015). Attraction and human mating. In V. Zeigler-Hill, L. Welling, & T. K. Shackelford (Eds.), *Evolutionary perspectives on social psychology* (pp. 319–332). New York, NY: Springer International Publishing.
- Medeiros, E. D. D., Pimentel, C. E., Monteiro, R. P., Gouveia, V. V., & Medeiros, P. C. B. D. (2015). Values, attitudes, and use of alcohol: A proposal for a hierarchical model. *Psicologia: Ciência e Profissão*, *35*(3), 841–854.
- Meier, B. P., Robinson, M. D., Carter, M. S., & Hinsz, V. B. (2010). Are sociable people more beautiful? A zero-acquaintance analysis of agreeableness, extraversion, and attractiveness. *Journal of Research in Personality*, *44*(2), 293–296.
- Petersen, J. L., & Hyde, J. S. (2010). A meta-analytic review of research on gender differences in sexuality, 1993–2007. *Psychological Bulletin*, *136*(1), 21.
- Schmitt, D. P., Jonason, P. K., Byerley, G. J., Flores, S. D., Illbeck, B. E., O’Leary, K. N., & Qudrat, A. (2012). A reexamination of sex differences in sexuality new studies reveal old truths. *Current Directions in Psychological Science*, *21*(2), 135–139.
- Sylwester, K., & Pawłowski, B. (2011). Daring to be darling: Attractiveness of risk takers as partners in long- and short-term sexual relationships. *Sex Roles*, *64*(9–10), 695–706.
- Thompson, A. P. (1983). Extramarital sex: A review of the research literature. *Journal of Sex Research*, *19*(1), 1–22.
- Tidwell, N. D., & Eastwick, P. W. (2013). Sex differences in succumbing to sexual temptations a function of impulse or control? *Personality and Social Psychology Bulletin*, *39*(12), 1620–1633.
- Williams, L., Fisher, M., & Cox, A. (2008). The impact of sexual history and desired relationship duration on evaluations of attractiveness and recall. *Journal of Evolutionary Psychology*, *6*(1), 1–23.