

Strangers in the Night or Love Forever: Characteristics and Preferences of Short vs. Long-Term Relationship Seekers

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Abstract

Sex differences in mate preferences as well as the tendency to pursue long- vs. short-term relationships have often been explored and confirmed. On the other hand, within-sex analyses of who is more likely to engage in a short-term relationship have been somewhat neglected. Therefore, the aim of this study was to compare proportions of individuals interested in short-term relationships (if single) or extra-pair relationships (if pair-bonded) in groups of different ages, incomes and education levels. While the proportion of single women interested in short-term relationships differed among those groups, men of all ages, incomes and education levels were equally interested in short-term relationships. The proportion of pair-bonded individuals interested in extra-pair relationship also differed among age groups (both men and women) and income levels (men only), but not across education levels. Furthermore, we tried to determine the structure of sex differences in mate preferences within the temporal context of a relationship. The discriminant analyses showed that mate preferences which mostly differentiated men and women seeking a short-term relationship were good looks and good financial prospects. In a long-term relationship context, three more preferences differentiating men from women have emerged: emotional stability and maturity, favorable social status and dependable character.

INTRODUCTION

Evolutionary approaches emphasize two key variables influencing mate selection criteria: sex and mate selection context, i.e. long-term vs. short term relationship (Buss, 1999). Men should show a greater tendency to pursue short-term relationships, compared with women, which is a prediction based on a cost-

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benefit analysis of optimal mating behavior for men and women during our evolutionary history (Trivers, 1972; Buss, 1999): males can benefit more from attempting to attract multiple mates because it could enhance their reproductive success. On the other hand, women are less willing to engage in a short-term relationship. During our evolutionary history women risked getting pregnant as a result of such a relationship, suffering the heavy burden of raising a child on their own in harsh circumstances, which could result in a lower probability of their children surviving to reproductive age (Buss & Schmitt, 1993; Kenrick, Sadalla, Groth & Trost, 1990). Modern birth control enables women to have short-term sexual encounters with less fear of pregnancy, but although the current environment has changed, we still possess the adaptive mechanisms evolved for coping with the adaptive problems of our ancestors. Furthermore, although the risk of unwanted pregnancy can be eliminated, there are still other risks to consider: the risk of contracting a sexually transmitted disease, damage to the woman's reputation, lowering of her value as a long-term mate, and, in case of pair-bonded women, losing the resources of her primary mate and the possibility of violence caused by his jealousy. The notion of sex differences in pursuing short-term vs. long-term relationships has received a lot of empirical support (Schmitt *et al.*, 2003; Schmitt, Shackelford, Duntley, Tooke & Buss, 2001; Buss & Schmitt, 1993; Clarke & Hatfield, 1989; Oliver & Hyde, 1993). Those sex differences range from moderate to extreme, depending on the type of measure being used: questionnaires tend to show greater sex differences, but behavioral evidence of extramarital affairs (even in very restrictive societies) show that women are also likely to engage in short-term mating (Feingold, 1992; Buss, 1999; Gangestad & Simpson, 2000).

On the other hand, within-sex differences between individuals pursuing short-term or long-term relationship have been less explored, although the Sexual Strategies Theory (Buss & Schmitt, 1993) posits that both men and women have evolved mixed strategies and postulates possible benefits from multiple mating for both sexes, and previously neglected within-sex differences in long- and short-term mating psychology have been recognized as important (Schmitt, Shackelford & Buss, 2001; Gangestad & Simpson, 2000; Greiling & Buss, 2000). Furthermore, if an individual (male or female) seeks a certain kind of relationship, either a short- or a long-term one, the question shifts to what is important in a mate for that specific type of relationship. Many studies have found differences between the sexes in the relative importance they place on specific traits in long-term partners (Kenrick *et al.*, 1990; Ellis, 1992; Wiederman & Allgeier, 1992; Buss & Schmitt, 1993; Sprecher, Sullivan & Hatfield, 1994; Waynforth & Dunbar, 1995; Buss, 1999; Buss, Shackelford, Kirkpatrick & Larsen, 2001; Shackelford, Schmitt & Buss, 2005). It has been repeatedly shown that women exhibit a stronger preference than men for attributes of ambition, social status and financial wealth in a partner, as well as a desire for children and commitment to family, which are indicative of the partner's ability to acquire and invest the resources necessary for the survival of the offspring. Men exhibit a stronger preference than women for indicators of

youthfulness, health and physical attractiveness, which are indicative of high reproductive potential, as well as for indicators of sexual fidelity. On the other hand, the results concerning sex differences in the context of short-term relationships and comparisons between short- and long-term relationships are not so consistent or unanimous (Fletcher, Tither, O'Loughlin, Friesen & Overall, 2004; Buunk, Dijkstra, Fetchenhauer & Kenrick, 2002; Sprecher & Regan, 2002; Kenrick, Groth, Trost & Sadalla, 1993).

Furthermore, the majority of studies were carried out on young adults, mainly undergraduate students, and, as Buunk *et al.* (2002) have already pointed out, it is not clear whether those results could be generalized to all age levels. Short-term mating preferences have not been as systematically studied as long-term ones, although some of the researchers in this field emphasize the importance of grasping short-term relationships mechanisms in order to understand the overall concept of sex differences in mating strategies (Gangestad & Simpson, 2000; Li & Kenrick, 2006; Oliver & Hyde, 1993). It has been argued recently that sex differences and similarities concerning short-term relationships could be a reflection of how the question is asked: "whether a person will enter a short-term relationship", "what characteristics are valued in such a relationship", and "why does a person enter into a short-term relationship, i.e. what is its adaptive significance" (Li & Kenrick, 2006). In this study, we addressed the question of "what" does a person value in the short-term relationship and also introduced the question of "who" prefers to or desires to engage in such a relationship.

More precisely, the aim of this internet-based study was to compare the proportions of participants currently desiring a short-term relationship or an extra-pair affair among individuals of different ages, income and education levels and to identify the structure of sex differences in human mate preferences, depending on the type of relationship the participants were looking for.

METHOD

Instruments and Procedure

We have used a questionnaire which consisted of two parts. The first part requested biographical data, including age, sex, income, sexual orientation, current relationship status (single or pair-bonded). The participants were also asked to declare whether they were currently interested in a long-term (LTR) vs. short-term relationship (STR) if they were single or extra-pair relationship (EPR) if they were pair-bonded.

The second part was a list of characteristics of a potential mate (adapted from Buss *et al.*, 1989). Participants were asked to rate how important each characteristic was for them, on a scale ranging from 1 (meaning "irrelevant") to 4 (meaning "essential"). Participants were not instructed to think about a specific type of a

relationship while rating the importance of a potential mate's characteristics, because we wanted to avoid possible artificial differences emerging from that kind of setting. Our aim was to find out whether participants who reported current interest in a long-term vs. short-term relationship would spontaneously give different ratings as a result of their current preference towards one or other type. This questionnaire was presented on the Internet, and participants were solicited via banners posted on several popular Internet portals (Iskon Internet, Speed-date site).

Participants

A total of 3023 participants completed the questionnaire. After removing invalid entries (incomplete questionnaires, identical entries, "suspicious" entries – e.g., several respondents from the same IP address, with inconsistencies in answers, etc.) 2987 subjects remained. For the purpose of following analyses, only the results of those who reported being heterosexual and older than 15 were used, that is 2655 subjects (1682 females and 973 males).

Respondents were from a wide range of educational, socio-economic and age groups. Their age span was 16 - 58 years, mean age being 27.80 (SD = 6.40) years. They had different educational backgrounds: 18.5% of our respondents had only high-school education, 30.0% of them were undergraduate students and 51.5% had a university degree or higher (masters/PhD). Their monthly income ranged from less than 2.500 HRK a month, to more than 10.000 HRK a month.

RESULTS

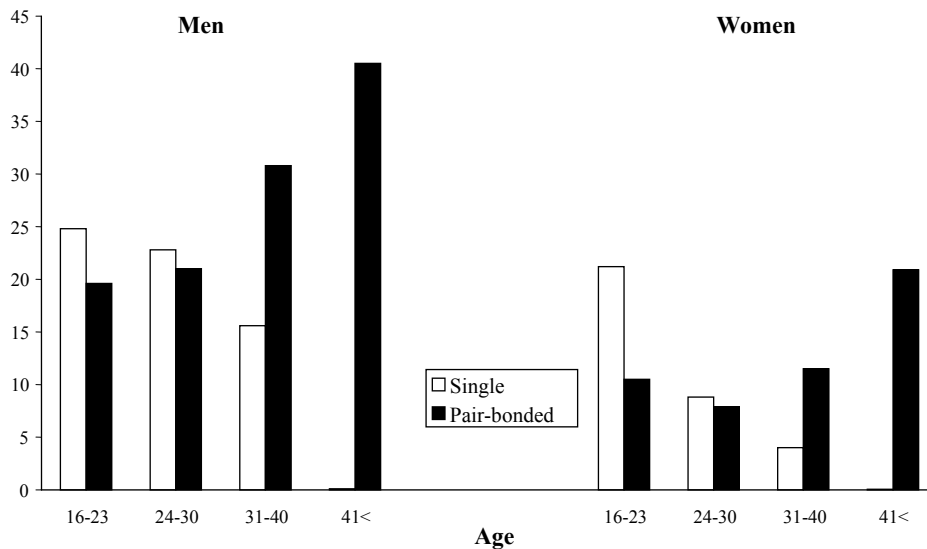
Within-sex comparison of interest for a short-term or extra-pair relationship among individuals of different ages and with different income and education levels

Chi-square tests were used to test whether proportions of individuals interested in a short-term or extra-pair relationship differed among participants of different ages and with different levels of income and education. Although sex differences in the interest for a long-term vs. short-term relationship were not the central issue in this study, we conducted a preliminary analysis which showed (as would be expected) that more single men (22.2%) than single women (12.0%) from our sample were at that time looking for a STR ($\chi^2(1, N = 954) = 17.68, p < .001$). Similarly, more pair-bonded men (24.2%) than pair-bonded women (9.7%) reported being interested in an EPR ($\chi^2(1, N = 1587) = 59.30, p < .001$).

Age

Participants were divided into four age groups, defined according to important life events: 16-23 years of age (a period during which an individual in our culture completes education and reaches maturity and independence), 24-30 years of age (young adults, starting a career and family), 31-40 years of age (adulthood, main reproductive period), and above 41 years of age (post-reproductive age, at least for most women). Chi-square test showed that while single men of all age groups were equally interested in a STR ($\chi^2(3, N = 414) = 3.39, p = .34$), the proportion of pair-bonded men interested in an EPR differed among men from different age groups ($\chi^2(3, N = 527) = 11.31, p < .01$), with older men more often reporting interest in an EPR. The proportion of single women desiring a STR differed depending on their age ($\chi^2(3, N = 539) = 9.28, p < .05$), with the proportion of women choosing STR drastically decreasing in older age groups. The proportion of pair-bonded women interested in an EPR also differed across age groups ($\chi^2(3, N = 1058) = 9.28, p < .05$), but in the opposite direction. The proportions of individuals from different age groups interested in STR or EPR can be seen in Figure 1.

Figure 1. Proportion of Participants in Different Age Groups Interested in a Short-Term or Extra-Pair Relationship

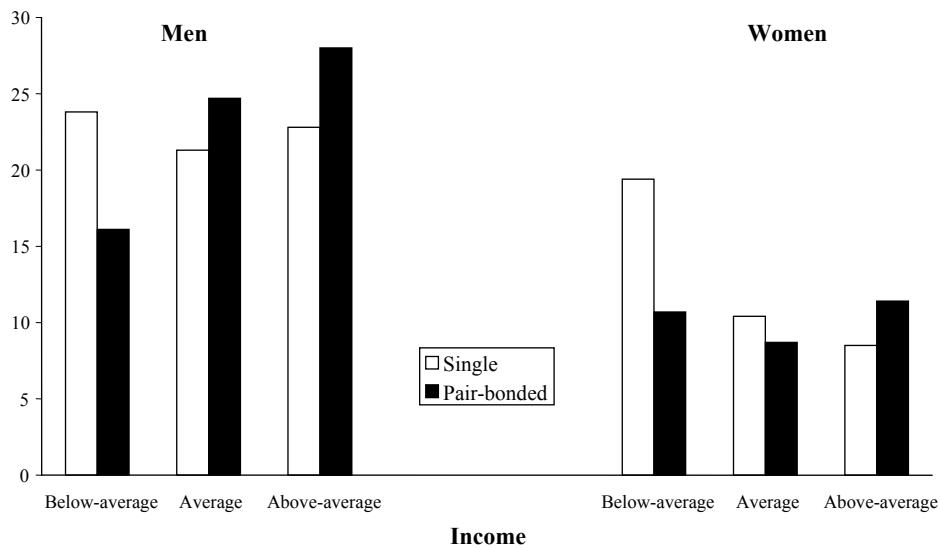


Income

On the basis of their reported monthly income, participants were divided into three groups: below-average (less than 2.500 HRK a month), average (2.500 – 5.000 HRK a month) and above-average (more than 5.000 HRK a month) income.

Similar to the results concerning the age of participants, the proportion of single men desiring a STR did not differ among men with different income levels ($\chi^2(2, N = 414) = 2.17, p = .35$), while the proportion of pair-bonded men interested in an EPR differed across income levels ($\chi^2(2, N = 523) = 8.01, p < .05$), with higher proportions found in groups with a higher income. The proportion of single women desiring a STR also differed among women with different income levels ($\chi^2(2, N = 536) = 17.09, p < .001$), with women in the below-average income group most often reporting interest in a STR. The proportion of pair-bonded women interested in an EPR was equal across groups with different income ($\chi^2(2, N = 1052) = 3.02, p = .22$). The proportions of individuals with different incomes interested in STR or EPR are shown in Figure 2.

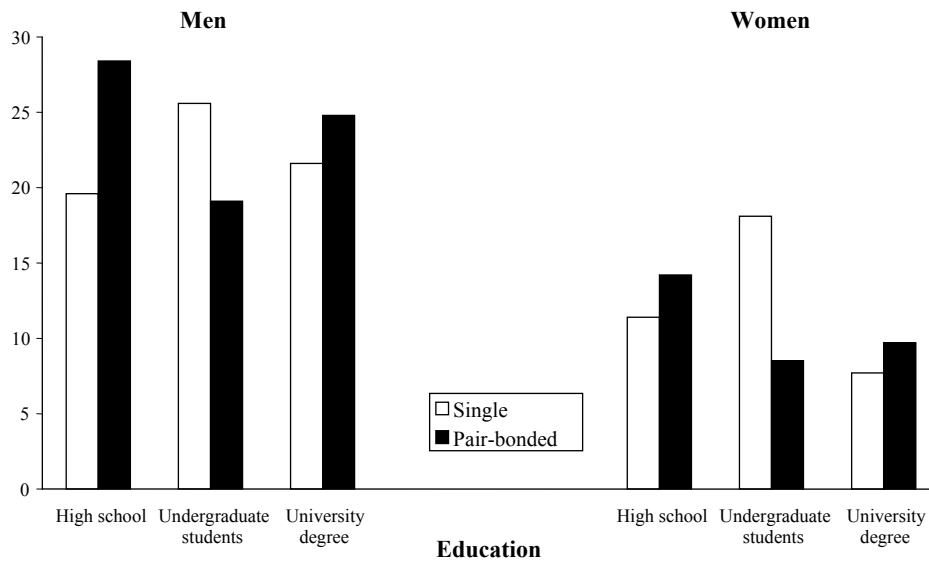
Figure 2. Proportion of Participants with Different Income Levels Interested in a Short-Term or Extra-Pair Relationship



Education

The proportion of men interested in a STR or EPR did not differ among men with different education levels, neither in the group of single men ($\chi^2(2, N = 414) = 2.31, p = .32$), nor in the group of pair-bonded men ($\chi^2(2, N = 529) = 3.07, p = .22$). However, the proportion of single women interested in a STR differed across different education levels ($\chi^2(2, N = 540) = 11.62, p < .01$), with the highest proportion in the group of undergraduate students. The proportion of pair-bonded women interested in an EPR did not differ among women with different education levels ($\chi^2(2, N = 1058) = 4.26, p = .12$). The proportions of individuals with different education levels interested in a STR or EPR can be seen in Figure 3.

Figure 3. Proportion of Participants with Different Education Levels Interested in a Short-Term or Extra-Pair Relationship



The Structure of Sex Differences in Preferences for Long-Term and Short-Term Mates

Two separate discriminant analyses with sex as a grouping variable were performed in order to establish whether the structure of sex differences differed between subjects seeking a STR vs. LTR. In the group of STR seekers ($N = 405$), a significant discriminant function was obtained ($\lambda = 0.59$, $\chi^2(18) = 197$, $p < .001$), with a relatively high canonical correlation $R = .64$. Classification results showed that 79.2% cases were correctly classified. Variables with the highest correlations with the discriminant function were good financial prospects and good looks.

In the group of LTR seekers ($N = 2224$) the discriminant function obtained was also significant ($\lambda = 0.649$, $\chi^2(18) = 945$, $p < .001$), with $R = .60$. Classification results showed that 80.7% of cases were correctly classified. Variables with the highest correlations with the discriminant function were good financial prospects, emotional stability and maturity, favorable social status, dependable character and good looks. The structure matrices for both discriminant functions are shown in Table 1.

Table 1. The Results of Two Discriminant Analyses: Correlations Between Discriminating Variables and Standardized Discriminant Functions in Short- and Long-Term Relationship Seekers

	Short-term	Long-term
Good financial prospect	.56	.49
Emotional stability and maturity	.16	.41
Favorable social status	.24	.35
Good looks	-.51	-.32
Dependable character	.22	.31
Similar education	.27	.29
Ambition and industrious	.27	.27
Similar political background	.18	.25
Education and intelligence	.17	.22
Chastity	-.24	-.21
Similar religious background	.12	.20
Desire for home and children	.08	.20
Mutual attraction-love	.19	.17
Sociability	.19	.16
Good cook and housekeeper	-.07	-.16
Pleasing disposition	.17	.15
Good health	-.02	.05
Refinement, neatness	-.03	-.01

Note: Group centroids in STR seekers: Male = - 0.74; Female = 0.95;
Group centroids in LTR seekers: Male = - 1.06; Female = 0.53

DISCUSSION

In species in which paternal investment goes beyond the fertilization, stable, long-term relationships can increase the survival of the offspring, which results in high desirability of such relationships. Our preliminary results, answering the question “whether” in Li and Kenrick’s (2006) terms, were in line with this argumentation: although more single men (22.2%) than single women (12.0%) reported interest in a STR, and although more pair-bonded men (24.2%) than pair-bonded women (9.7%) reported interest in an EPR, the majority of both single men and single women reported interest in a LTR and the majority of pair-bonded men and women reported non-interest in an EPR. At first glance, these results could be viewed as supporting the notion of Miller and Fishkin (1997, p. 224) that “we would expect that whereas most men and women would be seeking a long-term mate, their desire to seek a short-term mate would be minimal”. However, humans often mix mating strategies: a person can be engaged in a LTR and simultaneously pursue an EPR, and, as already mentioned, some authors have argued that the short-term relationship mechanisms are the ones that can give us a fruitful insight into human mating strategies in general. Although it has been repeatedly shown

that men show a stronger tendency for sexual variety and short-term mating (Buss & Schmitt, 1993; Schmitt, Shackelford & Buss, 2001; Schmitt, Shackelford, Duntley *et al.* 2001; Li & Kenrick, 2006), both men and women can benefit from occasional short-term relationships by enhancing their reproductive success. Men might gain a direct benefit (more children) from mating with multiple partners. For women, among many potential benefits, such as immediate resource accrual, production of genetically diverse offspring, mate switching, clarifying mate preferences, etc. (Greiling & Buss, 2000), those which received most empirical support were resource acquisition and mate switching. Furthermore, women might obtain both protection and resources from several men in cases when there is a possibility of paternity (Blaffer Hrdy, 2000). Therefore, as long as these benefits outweigh the potential costs, short-term strategies can be expected in women as well as in men. One of the questions seldom asked is “who” would be pursuing a STR. In other words, are there certain contexts or characteristics making a person more disposed toward a short-term option as a conditional strategy (Gangestad & Simpson, 2000) and, if there are, are they similar or different in men and women? This is the reason why we explored whether men and women with certain characteristics would be more inclined to pursue a short-term or an extra-pair relationship.

Age proved to be a relevant variable in determining how likely it would be for a woman to pursue a STR (see Figure 1). Twenty one percent of young women (aged 16-23) without a primary partner reported current interest in STR, compared to only 4.0% in the older age group (30-40 years of age). This might reflect a strategy which young women can afford to use: by being open to short-term relationships they can increase the chances of meeting a suitable partner and settling with him in a long-term relationship (as argued in Buss & Schmitt, 1993). Considering men's preferences for youth, this might be an optimal strategy only for younger women. An older woman without a primary partner cannot afford to pursue this strategy, owing to the fact that her remaining reproductive period is shorter. This lowers her mate value thus reducing the number of men available to her, and it has been shown that people spontaneously adapt their expectations according to their own self-perceptions and level of desirability (Campbel, Simpson, Cashy & Fletcher, 2001; Kenrick *et al.*, 1993; Sprecher & Regan, 2002). Women who already have a primary partner show a different pattern: younger ones express less interest in STR (8-10%), compared to those older than 41 years (21%). Again, this seems to reflect an adaptive strategy: a younger pair-bonded woman in her reproductive age takes a greater risk when pursuing an extra-pair affair – she risks losing a committed partner willing to invest in her and their offspring and, furthermore, the rate of domestic and jealousy-driven violence against women was shown to be highest among younger women (Wilson & Daly, 1993). The pattern of age differences in men interested in a STR was different from the one obtained in women. The proportion of single men from our sample who reported interest in a STR did not differ significantly across age groups (although there was a trend

toward smaller proportions in older age groups). Men, unlike women, have an almost life-long reproductive period. Owing to that, single men who pursue the strategy of multiple short-term mates are under lesser pressure to settle down. However, only individuals with high mate value can afford the strategy of pursuing multiple mating partners rather than investing in a single woman and her children (Pérusse, 1993), which is probably the reason why the proportion of single men (for example 15.0% in age group 31-40) who reported current interest in a STR is not higher. A different pattern emerged among pair-bonded men of different ages: only about 20.0% of men in younger age groups, compared to 40.5% in the group of men older than 41 years reported current interest in an EPR. It has been shown that men of all ages desire a variety of partners (Schmitt, Shackelford, Duntley, *et al.*, 2001). There is no reason to assume that older men from our sample have a stronger preference for variety than younger ones, although it could be argued that they might have been with the same partner for a longer time, which could make an EPR more attractive for them. The more plausible explanation would be that they were the ones that could afford an EPR – most men of that age have already established social and financial positions. This explanation is supported by the fact, as we shall discuss later on, that pair-bonded men with higher incomes are the ones that most often report being interested in EPR.

Another variable expected to influence the probability that a person would pursue a short-term strategy was income. We expected different proportions of individuals choosing a short-term strategy in groups of men with different income levels. It proved to be the case only in pair-bonded men, where those with higher incomes more often declared to be interested in an EPR, while among single men the proportion of individuals interested in a STR was the same in all income groups (see Figure 2). As discussed earlier, pair-bonded men with high income are the ones that can afford to pursue an EPR: their possession of abundant resources enables them to attract short-term partners while not reducing the resources for the primary partner, so that she would not notice the deficit. At the same time, those men are the ones more pursued by women, as women judge it to be highly likely that they will receive immediate benefits (such as jewelry, money, clothing, and dinners) by engaging in short-time mating (Waller, 1994; Udry & Eckland, 1984; Greiling & Buss, 2000). Anthropological data showed that even in cultures which nurture polygyny, only men with the highest resources actually marry more than one wife (e.g., Cowlishaw & Mace, 1996).

Women showed a different pattern: there were no differences in proportion of pair-bonded women who desired an EPR across different income groups, while proportion of single women wanting a STR differed across those groups, with the highest proportion in the group with the lowest income (Figure 2). This might be yet another example of adaptively designed strategy: women with lower socio-economic status might apply this strategy to obtain immediate financial or other material gain or to increase their chances of marrying, when they perceive the potential for the development of a long-term relationship. It has been argued that

parents in lower SES strata favor girls, because they have a higher chance of hypergyny (Trivers-Willard effect; Berezkei & Dunbar, 1997; Gaulin & Robbins, 1991).

Education turned out to be the least predictive variable for addressing the issue of preference for long- vs. short-term relationship. The proportion of both single and pair-bonded men who reported being interested in a STR or EPR was the same across all education levels, and that was also the case in pair-bonded women (see Figure 3). The only significant difference in preference for STR was found among single women of different education levels, with the highest proportion of individuals interested in STR in the group of undergraduate students. However, this finding can probably be better explained in terms of age than in terms of education differences: while the average age of women with high school or university diploma was 28.30 and 30.30 years respectively, the average age of undergraduate students was 22.90 years, revealing the same pattern of preferences for STR as the one found in the analysis of preferences for STR among women from different age groups (cf. Figure 1).

Our second analysis was intended to explore the differences in importance men and women place on certain characteristics of a potential mate. As described in the methodology section, we did not instruct participants to think about a short-term or a long-term mate while rating the importance of his/her characteristics, in order to avoid artificial settings and a potential inflation of differences. Instead, two separate discriminant analyses were performed on the groups of participants who reported current interest in a STR and LTR, respectively. This makes the differences obtained in the structure matrices of discriminant functions even more compelling. As predicted, the characteristics of a potential mate which mostly contributed to the differentiation between sexes were not the same in the group of LTR seekers as in the group of STR seekers. In the group of STR seekers, the only preferences for mate characteristics which significantly contributed to the differentiation between sexes were good looks, favored by men, and good financial prospects, favored by women. In the group of LTR seekers, the list of preferences for mate characteristics significantly contributing to the differentiation between sexes is longer: good financial prospect, emotional stability and maturity, favorable social status and dependable character, all of them favored more by women, and good looks, favored more by men.

It can be seen that among characteristics that mostly contribute to the differentiation between sexes there is only one that men value higher than women in both contexts – good looks. A single characteristic valued more by women discriminated sexes in the short-term context – good financial prospects. In the long-term context, in addition to good financial prospects, there were other such characteristics: emotional stability and maturity, favorable social status and dependable character.

It could be hypothesized that in a short-term relationship women are more oriented towards gaining immediate benefits for themselves (an idea supported by

the fact that the highest proportion of women interested in STR was found among women with the lowest income level), while in long-term relationships they expect to secure those benefits for their offspring, which requires both the possession of resources (reflected in preference for financial and social status) and readiness for sharing those resources (reflected in preference for emotional stability, maturity and dependable character).

Alternatively, a robust finding of female preference for good financial prospects, independent of the type of relationship, might indicate that women (or, at least, some women) do not view STR as an end in itself (Greiling & Buss, 2000; Schmitt *et al.*, 2001). If they use STR as a means to evaluate potential long-term mates, it is logical to expect that they would prioritize the same characteristics (i.e. resources) in potential STR and LTR partners. However, it is important that man is not only able to invest resources in a woman and her children, but also that he is willing to do so. Therefore, women show higher levels of selectivity and choosiness when looking for a LTR, seeking a partner who has good financial prospects and, in addition, possesses the characteristics indicating his readiness to share his resources during the upbringing of children. These results are in accordance with the notion that STR might be a check-point before a potential LTR: while women verify whether men's financial resources are sufficient, men verify women's reproductive potential (Li & Kenrick, 2006).

In summarizing our findings, we can conclude that single men of all ages, income and education levels showed an equal rate of interest for short-term relationships, while among pair-bonded man, the highest proportion of individuals reporting interest in an EPR was found in groups of men who could afford it – older and with higher incomes, i.e. with more social and financial power. They can offer exactly what women interested in a short-term relationship seek, as shown in our second analysis (Table 1). It can be argued that this pattern reveals an adaptive mating strategy: single men have very low potential costs and relatively high potential benefits from short-term mating, and thus they seem to be the group which would do best not to reject the opportunity for a STR when it occurs, irrespective of their own characteristics. Once they have obtained an optimal long-term partner, the potential costs of short-term extra-pair affairs rise, which is reflected in a finding that younger pair-bonded men with low incomes report relatively small rates of interest in EPR.

In single women, the highest preference for STR was found among those who were younger, those from lower socio-economic strata, and those still finishing their education –women for whom the potential benefits of STR are the largest (e.g., having the opportunity to choose the optimal partner or marrying up) and potential costs the lowest (no danger of losing resources or being punished by a jealous mate). This notion receives even further support in our finding that among pair-bonded women the rate of interest in EPR was significantly higher in the oldest age group, for which the danger of retaliation from a jealous cuckolded partner is smaller than for women still in their reproductive age. Finally, women's

preference for good financial prospects differentiated sexes in both short-term and long-term mating context. This is in line with the idea of the STR as a starting point for a prospective LTR: once the possession of financial resources has been established and the short-term partner proves to possess other desired personal and behavioral characteristics suggesting his willingness to invest them in a family, he might become a long-term partner.

These findings, obtained on a sample of both single and pair-bonded individuals of a broad age-span, are in accordance with postulates of the Sexual Strategies Theory (Buss & Schmitt, 1993) and the notion of conditional mating strategies (Gangestad & Simpson, 2000). Both sexes have evolved short-term and long-term sexual strategies. Although men show a stronger tendency to pursue short-term relationships, both men and women engage in short-term mating, and it seems they do so for different reproductive reasons. Besides these between-sex differences in the tendency toward short-term mating, there are also marked within-sex variations. In other words, the short-term option will be adaptive for both sexes in certain contexts, which seem to be mainly determined by an individual's own mate value.

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